

Telephone for secrecy

Codeline is a new telephone from Ericsson that cannot be tapped. It contains equipment that encodes conversations so that outsiders cannot understand what is being said. Page 14



Excavating in Ericsson roster

Business Area Cable and Network has extended its long line of affiliates with yet another. It is Philipssons Gräv & Schakt, a leading company in the excavation branch. Center



A Veteran looks back

Sven Arne Johansson is a veteran among Ericsson employees. He has worked all over the world for the company and has acquired innumerable experiences. Pages 10-11



Photo: Tord Andersson s Werthén hand

going chairman of the board, Hans Wer- all market expectations! thén. He is leaving the company with

The annual shareholders meeting with the flag at full mast — shareholders could Ericsson on May 8 ended with a thanksgiv- be happy with record results for 1989 and ing and farewell presentation for the out- a first quarter this year that has surpassed

Pages 2, 6 and 7

Breakthrough in Japan and West Germany • Page 3

CONTACT MANAGEMENT No 5/1990

"Ericsson in the nineties"

When I took the position of chief executive and of chief executive and president of Ericsson on May 9, 1990, Ericsson was in every way a very successful company with fine personnel, good products and excellent customer relations. We have a record year 1989 behind us, backed moreover by very good results for the 1990 first quarter. There is also quality in our results, that is the improvement applies to all our business areas and our markets as well - almost without exception.

o take on responsibility at a time of such positive results, naturally feels easy in some ways, but also leads me to recall the old Chinese proverb, "No tree grows to heaven." We all know that success does not come about by itself.

I think therefore that this is an opportune moment to advise our assembled staff that we must be particularly observant of what our competitors are doing, especially now that it is going so well for us. We have to confront political as well as pure commercial risks in an increasingly competitive market. We must be cost conscious. We shall concentrate all our energy into satisfying our customers, in supplying the right things for the right price in the right time. Flexibility and quality are the bywords for the nineties.

he 1990's telecom market will be marked by a significantly large fragmentization, where our end customers, who will increasingly become competitors with each other, will make even greater demands on us as suppliers. The market pulse is stepping up. We must be sensitive to customer needs, become even more business and market oriented, have the best product and services. Customers should choose Ericsson above our com- vinced that together we shall petitors.

Ericsson is the leading international supplier of for telecommunications networks and I am convinced that we shall continue to remain so

throughout the nineties. My conviction is based on the fact that I know that we can be even stronger than we are today through extended collaboration among our business areas and especially between the business areas Public Telecommunications, Radio and Business Communications, backed up by the Components business area. None of our competitors have our combined systems know-how, particularly not the switchingradio combination, backed by extensive knowledge in new services in network as well as operation and maintenance systems.

Business Area Cable and Network and Defense will take their specific operations further on their own merit but also in close cooperation with other group activities.

In addition to the cooperation among the business areas, the nineties will be characterized by a marked increase in market activity outside with our sales companies. We must have competent sales companies that represent Ericsson's total systems know-how.] shall be active in seeing that cooperation between the business areas and the sales companies is intensified.

mportant for our success too is our personnel – all 70,000 of us in Ericsson. We have our common values professionalism, perseverance and fellowship. Our capacity to meet our customers' demands is based on the collective contribution of our staff and their knowledge that within Ericsson right now there is remarkable accord and optimism. Everyone is doing his best. If we are only observant of our competitors and rise to our responsibility and the trust that the shareholders have placed in us, I am totally concontinue to reap great accomplishments.

Jaman

Lars Ramqvist

One vote in accord heralds the shift in leadership

The 1990 shareholders meeting was historic from several angles. Shareholders were presented with record results for the past year - bolstered by even better figures for the 1990 first quarter. And the company changed leadership positions: Hans Werthén handed over the post of chairman to Björn Svedberg, who in turn was succeeded as president by Lars Ramqvist.

It was a large and expectant group of shareholders that gathered on May 8 at Berwaldhallen in Stockholm. The same day, Ericsson was declared the top valued company on the Stockholm exchange and the quarterly report released that day spoke of astounding results for the first three months.

Never stronger

The positive tone of the quartely report and the results for 1989 naturally put its stamp on the accounting of Ericsson's economic situation and future outlook that Björn Svedberg and C.W. Ros gave at the meeting.

pite a rise in investment for research and development and despite the fact that huge sums were also invested for increased growth.

"Happily enough, several business areas have improved their results," said Svedberg. "We have not reached the top yet, but we have built a good base to get there.'

First blow struck

Svedberg dealt also with Ericsson's efforts to penetrate the U.S. market. "The U.S. has been a hard nut to crack, but we have shown strength and perseverance there," he said. "But the first blow in the U.S. has been struck but the competition in that market continues to be tough.



group increased its margins des- CEO, Björn Svedberg, the new chairman, and Hans Werthén

Ericsson overall are the future in- comes to goods, services, manvestments being made in personal telephony and Mobitex.

"Financially, technologically and psychologically, we are at the fore today," noted Svedberg.

EC Membership

Forty percent of Ericson's turnover is in countries within the EC. The group has 20,000 employees in these countries and exports for almost 6 billion SEK annually to the EC. Svedberg ex- clearly to protect the sharepounded on the current EC issue holders' capital," he said, and then for the benefit of the Ericsson conveyed the happy news that leadership

from Sweden and to work entirely according to the same rules as our competitors, we must have full use ly his ten years in Ericsson, as Other important factors for of the EC's free movement when it president of Rifa and now recently

power and capital and thus avoid discrimination in public dealings. "This calls for some sort of association, which in the long-

"In order to maintain exports reached 1,100 SEK in New York, since the quarterly report was

term perspective at least could be similar to full membership.

Ramqvist new CEO

Björn Svedberg handed over the presidency to Lars Ramqvist, who thanked him for his confidence: "My most important mission is Ericsson shares that same day had

a bit about his technical back- over three farewell gifts to Werground. "I received my doctorate from medal, an oil painting of the board KTH, the Royal Technical In- room and at last - but not least -

stitute, in 1968 in the field of elec- a donation from Ericsson of 10 tronspectroscopy. That means that million SEK. The donation will I actually understand what hap- finance a fund, the Hans Werthén pens in a microchip when I pick up fund, which will be administrated a telephone!"

Homage to Werthén

Two persons were honored with all the honors, expressed his ungold medals at this meeting -Björn Svedberg and Hans with the following words: Werthén. Since Björn Svedberg new chairman, it was natural that Werthén was most in the public shareholders. eye this day. He was honored in a long and entertaining speech by

Interim Report: Doubled profits from a

Ericsson is sailing with a fair wind right now. The quartely report released just before the shareholders meeting spoke of a significant improvement in result, compared with the 1989 record earnings.

The positive trend at the beginning

with 1989.

three months of 1990 amounted to The improvement in income is SEK 10,409 million (SEK 7,992 attributable mainly to the Public m. in the corresponding period of Telecommunications and Radio 1989), an increase of 30 percent. Communications reported the Order bookings totaled SEK greatest sales increase, due partly 12,191 m. (9,300), up 31 percent. to the consolidation of Ericsson of the year and the continued Income before appropriations and GE Mobile Communications. favorable business climate for the taxes nearly doubled to SEK 1,180 Public Telecommunications Company's products provide a m. (609), including capital gains posted a continued improvement base for strong earnings for the of SEK 25 m (14). Income per in operating income and a sharp

come, before appropriations and sion was SEK 17.25) (9.19). Intaxes, will increase by slightly come per share after taxes paid more than 25 percent, compared and estimated deferred taxed an appropriations, after full conver-Consolidated sales for the first sion, was SEK 16.11 (11.01).

released. Ramgvist recalled brief-

full year. It is expected that in- share after taxes and full conver- rise in net sales, largely due to

strong market development in despite the divestment of the

year ago

bookings also rose sharply. Radio Communications is the order bookings. fastest growing business area, Cable and Network reported to the cooperation with General pany acquisitions. Electric, but is attributable mainly Components showed an in-

of mobile telephone systems. ponents. Operating income improved Defense systems reported a strongly.



as head of the Radio Communica- Vice Chairman Jan Wallander, tions business area. He also spoke who, in a final gesture, handed

"The future is far larger than will remain in the concern as the you will ever know," he said, addressing Ericsson employees and Text: Lars-Göran Hedin

Academy.

Photo: Maria Petersson

thén: the largest size Ericsson gold

by the Engineering Science

wavering faith in Ericsson's future

Werthén, noticeably moved by

White spots are erased

Two important breakthroughs were made during May. Japan and West Germany became new markets for Ericssson's mobile telephone system. The value of this breakthrough cannot be overestimated - they are two strategically very important countries that have been penetrated.

Breakthrough in Germany and Japan

We have two white spots on the Ericsson map - West Germany and Japan," Lars Ramqvist explained at a coffee session for LME employees on May 11. The same afternoon one of the white spots was erased, and hardly a week later the other one was also

It was West Germany that went first. For several weeks the telecommunications world was waiting for word from the German consortium Mannesmann Mobilfunk about whom or which would receive the first orders for a new digital mobile telephone network in West Germany. When the news was finally released, it was for the supply and installation of telecommunications equipment for building up the new "D2 network" between now and the end of 1992. The two companies will comprise a specially formed consortium, "German D2 Mobile Telephone Consortium." The consortium will also include the German Bosch and Dutch Philips. The order that has been placed involves above all radio base stations and mobile telephone switches. The value of the order is 350 million DM (1.3 billion SEK).



The agreement with Mannesmann opens doors to West Germany in nobile telephony.

Mannesmann's planned D2 network is being built according to the common standard agreed to for Erurope - GSM - and it will be one of the largest networks within this standard, based on how large an area it would cover.

As of now, West Germany can be added to the list of countries that have ordered their GSM network from Ericsson. Already in the earlier list were Sweden, Finland, Denmark, Britain, France, Switzerland, Italy and

Digital for Japan

Ericsson's Japanese breakthrough in mobile telephony is also a fact now. Through a socalled Letter of Intent from Nippon Telgraph and Telephone Corporation (NTT), Ericsson and NTT agreed on the common development of parts for the new Japanese digital mobile telephone system.

This is the first time that NTT has signed an agreement for a common development project with a European company and also the largest contract for a European manufacturer. In Japan today, there is an analog mobile telepone system with 400,000 subscribers. The number of subscribers is expected to increase

quickly with the installation of the digital system. The Japanese system will have a standard that distinguishes it from the Eruopean GSM and the American ADC.

"For Ericsson, the breakthrough in Japan is of major strategic significance, since Japan was the only large remaining market in the world that did not have an Ericsson mobile telephone system," says Lars Ramqvist.

Taiwan Order

Alongside the digital mobile telephone network, Ericsson is also moving ahead with the analog system. A large new order from Taiwan recently provided for expansion of the country's mobile telephone system with new switches and radio base stations for a value of some 420 MSEK. It is one of the largest mobile phone orders up to now which, together with an earlier order, means that Taiwan has ordered mobile telephony for a total of 870 MSEK from Ericsson.

With the ordered equipment, the mobile system in Taiwan, will be expanded in capacity from 40,000 to 110,000.

Text: Lars-Göran Hedin

Spain, Australia and Italy. Order Swedish sales company. However, this resulted in a certain decline in

posting a very strong increase in increases in sales and order bookorder bookings. This is due partly ings, attributable partly to com-

to rapid growth in Ericsson's own crease in net sales due primarily to operations, particularly in the area a favorable trend for power com-

decline in net sales as a result of Business Communications the divestment of operations for posted a slight increase in sales, command and control systems.

Switch purchase agroomont from NVNEY agieeilleill II VIII NIINEA

Ericsson has been awarded a letter of intent from **NYNEX** Corporation for AXE digital switching systems that will provide **Class Five Central Office** service in the state of New York.

The Ericsson AXEs will replace a number of existing electromechanical and electronic switching systems. The switches will be located in New York's Westchester County.

telecommunications services to a

diverse base of customers nationally and internationally from offices in 13 countries and across the United States. Through New England Telephone and New York Telephone, NYNEX NYNEX Corporation pro- delivers quality telecommunicavides information products and tions services in the Northeastern United States.



Pat Murphy from the U.S. to new **F-division in Kista**

"Good. I have sat through a number of meetings but I am beginning now to understand Ericsson's systems and products.

"When did you come to Sweden and how long do you plan to stay?

I began on March 19 and it is expected that I will be staying a couple of years. I am still the only one from ECU here.'

What will you be doing here eventually?

"I (and we in the group) will build up a new general product assortment for American and Swedish companies as far as mobile radio is concerned. Beyound customers' requests, the real needs.

When will the work be finished?

It will never be finished. It is continually going on. New generation products are being produced all the time. But we have now begun with one (we will soon have the results) and are now working with putting out a replacement for the Ericsson hand-held radio P300. It is based on a Lynchburg design, M-PA and right now it is undergoing construction of new software. A team in Kista and one in Lynchburg are working hand in hand. We are aiming to have it completed this year and to see how the effort turn out.

You come from GE?

I have worked at the Lynchburg plant for five years, as marketing manager (product matters) and have a Bachelor of Industrial Management and an MBA (corresponding to the Swedish civil econom). I have a broad background in industrial production.

What do you think of Sweden?

Good. Everyone has been extremely helpful. Both on the job and as far as finding housing and doing the shopping, among other things. I like a lot, too, preparing and eating Swedish food. I am studying Swedish now (but do not dare to speak as yet) and I drive a SAAB.



The blue and gold Swedish flag flies alongside the American one at the Lynchburg plant in Virginia, U.S.A. The former GE plant is now Swedish-American as a result of the joint venture agreement between Ericsson and General Electric.

The employees expect a lot from the joint venture agreement. Their horizons have expanded. The combination of Ericsson's worldleading marketing position and the technical knowhow and efficiency inherent in the successful GE winshare system can both set the pace in Europe and take up the battle with "big brother" Motorola in the American market.

Efficiently, commitment and enthusiasm open doors between workers and managers. That's actual production figures, etc. At how one could, in a nutshell, describe the winshare system that 'profit-sharing" system, allows



Inez Jennings is happy. She has worked 30 years in the plant and has 6 weeks vacation. Recently, she spent a week in Florida.

employees, among other things, to share in profits arising from implemented proposals for improvement

stimulating bonus system. It is a bit more rough. The plant is something of a revolution. The 1,200 workers involved in assembly, control and packing, among others, are split up into 60 groups, teams, in which all work to improve routine in their respective job areas.

But before we go on about the system (which is the pivot for the plant's entire existence and suc- Dennis C. cess), a few words about the plant itself.

Construction began toward the end of the 1950s. Since then, it has grown several times. It now covers about 630,000 square feet (57,000 square meters). The plant location from the vertical north-south itself leaves a powerful impres- direction to the horizontal eastsion. High up, it reposes in a west. The new "line" for Ericsgolden light. In every production son's base stations (applicable to sector, there are notice boards on the existing mobile telephone which are posted certain sections' system, not the digital one) is just

Ericsson/GE plant in the U.S. s located in Lynchburg, irginia, on the East Coast. Some 2.000 eople work here with design, prod ion and supply ystems withi mobile com-



"Everyone is a winner in winshare," says Sam A. Hedrick, coordinator and originator of the winshare system. The employees are involved, the plant becomes profitable and customers get better products.

the same time, there is a demonstration table where someone, for pervades the entire plant. A example the team leader, demonstrates and explains the products for visiting customers. This is a major part of the winshare system - that those who manufacture the products conduct the demonstrations themselves. The customers are impressed and they ask about details. The winshare approach and job quality have become a selling argument in itself. The plant employees often attend exhibitions and demonstrate their products.

> Linked with the plant in Lynchburg is a department in Florence, which delivers circuit boards. Some 150 people work there.

On the outskirts

The plant is located on the outskirts of Lynchburg itself, near the airport. Right there is a football field which the local sports club uses. Westward, behind the Hilton hotel, where most Swedish Ericsson visitors stay, there are the But winshare is more than just a hills. To the east, the landscape is



undergoing some changes. The entire production flow has shifted

"Ericsson's strength is the global tive, we deal with large says head of marketing John

being built up and will come on stream in the second quarter.

nicians and the marketing division which includes the police, fire there are training rooms, places were customers are received and where they learn about the system. For example, recently technicians from Jordan, which placed a huge order for mobile radio.

for mobile communications are minals, to those who need large manufactured at the plant. The complex computer-guided sysproducts are shared among tems with data communications. Business/Industrial, Public Ser-

Ericsson/GE's factory is located James River. The population in Lynchburg, in the Southern began to spread with the ferry state of Virginia. It is a town that traffic and the town was establishlies off the beaten track, at the foot ed during the days of the tobacco of the Appalachian mountain boom. chain, with a view of "The Blue Ridge" (where a beautiful overland route leads southward up through the mountain crests).

Lynchburg is old by American standards. It recently celebrated its 200th anniversary and was named after its founder, John Lynch, a Quaker, who in 1757 started ferry traffic across the dades så staden.

Ericsson and G

CONTACT MANAGEMENT No 5/1990

In August 1989, Ericsson and General Electric entered into a collaboration in nobile communications. A joint venture company was formed, Ericsson GE Mobile Communications Holding. t involved the respective companies' departments that handle mobile communications (however, not Ericson's non-American mobile system) and is

vice and Mobile Telephone sectors. B&I and PS also share in land In the building housing the tech- mobile radio. Public Service, departments etc., is clearly the largest with some 45 percent of sales. The others are also considerably large.

The customers range from the small users, who purchase a A number of different products couple mobile or hand-held ter-

Winshare boosts factory in Lynchburg fell short; it sparked commitment

employees.

eneral Electric

owned 60 percent by Ericson and 40 percent by GE. The president of the company, which has its offices in New Jersey, is Åke Lundqvist. The companies complement each other when it comes to markets and products. The factories are located in Kumla, Sweden, and in Lynchburg, Virginia.

> reduce the range of products, but increase volume," says Dennis C. the plant.

Revolution

troduction of the winshare system maybe, a couple of months before they realized that it was not merely system succeeded where others

tobacco town

Some 60,000 inhabitants live people but it can, nevertheless, be here - twice as many if the sur- described as an industrial town. rounding areas are included. It is a very conservative town, just a few miles from the spot where General Lee of the South surrendered during the Civil War.

It is not a nightlife town, but it is a good place to grow up, many of its inhabitants feel.

Lynchburg is built on seven hills (like Rome), it has a university and four colleges, which means that there are a lot of young







The normal working shift, above, is from 7.30 to 4 pm. The plant has its own cafeteria, below, where lunch costs \$2 to \$3.





"Winshare has given us self-confidence and saved our jobs," say team leaders Dotty Tegnelia, Lonnie Harper, Pat Eubank, Sam Aughey, Helen Kittinger, Hazel Colmore, Ann Grant and Charles

For the employees, the in-

The situation suddenly became precarious. Jobs and the plant's and the customers. The year 1989 Connors, production manager at very survival was in danger. produced 4,000 ideas and the Something had to be done. It equivalent of 53 million Swedish meant matching the competitors' (Japanese) efficiency. To raise its own quality and have

and coordinator of the winshare

system, explains the background.

He points out that he himself has

worked for 30 years at the plant,

did what he was assigned to do,

At the beginning of the '80s

there came a few difficult years,

and 1986 was a year of huge losses.

every employee involved in their in 1987 was a revolution. It took, work and not just wait for a paycheck for an 8-hour work day. The framework for the winshare

a new "quality project" or some- system initially came from outthing similar that management side; then came the task of applywas trying to push. The winshare ing it to the plant in Lynchburg. "In 1987, the average employee

"How could we motivate them all?

I knew it could work. It took me a before," says Lonnie Harper, and full year to prove that I could make that he has been all over and that he my colleagues growing, taking through the plant. responsibility. We succeded with a system that unleaches tied-up un- to making contact have become tapped resources. And the operations have become profitable. Everyone benefits from winshare - the employees, the company kronor.

Barriers removed

"Now finally we have a voice. Now we get a hearing for our ideas. We no longer have a bureaucracy that hinders us, we speak with each other across frontiers, we are creative and we are happy," say several of the staff.

In short, winshare means that the employees collectively share in the benefits from profitable proposals for improvement. The operation is made up of some 60 teams, each with its team leader and work area. The work on the ideas itself is done in their free time or lunch hour or on evenings. The team leaders are elected by their own team members.

They meet once a week. Suggestions and ideas are discussed and if they are deemed interesting one works further with them. The team has money for pursuing ideas as well as help with administrative and technical resources.

"Bonus money is not the most important thing for us," say several of the team leaders, when they gathered for an interview. We do this for our own sakes. The whole job has become something

and we hardly knew what our col-

"I did not know any of you Helen Kittneger adds that she it happen. In December '88, I herself, earlier felt like a total became coordinator and now I see stranger whenever she walked

> But it is no longer so. The routes shorter. Both on the job and alongside the job. Now we have a common life.

Own home

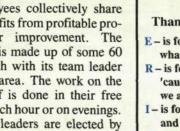
Lynchburg is a typical American town, which was built with the car in mind. Spread out. High rises. It is relatively cheap to live here. Many people own their home

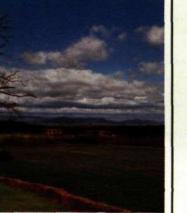
The average annual wage is about \$20,000. Then about \$1,000 is added to that through winshare.

- Thanks "Ericsson," We Needed This
- E is for eagerly waiting to see; what our JV has in store for me.
- is for riches I know we will gain; 'cause they tell me with "Ericsson" we are in good hands.
- is for the interest you have shown in us; and for this we thank you so much.
- is for the courage we have shown through the years; never, never, giving in to our fears.
- is for sincerity and serious minded we are; always reaching for the highest star.
- is for steadfastness, until the task is done; working from dawn till setting sun.
- 0 is for onward we will go:
- there is no better team we know. - is for now; our future looks bright;
- "Ericsson" we know we can do it right.



"A year ago I did not know much about Ericsson other than it was Swedish," says Elsie Foster, who has now written a poem about Ericsson. Elsie is clearly positive about the joint venture agreement, which is also reflected in the poem.





"With Ericsson, we are in good hands," she writes.



G.W. Thomas, from the mechanical department, has been working for 29 years and is part of the fixers winteam, above. Joyce Durie, below, packs 350 HotLine mobile phones, that is GE phones, per day. Production of Ericsson base stations for mobile phones in the U.S.A. are best prepared at the plant

The plant has a cafeteria where

The sex ratio is 60 percent

cent men on the technical and

marketing sides. Personnel turn-

over is low and the majority of

those on the factory floor have

been working there for almost 20

years. The only ones who leave are

those that go on pension. On the

sales and marketing side the turn-

A lot of attention is paid to the

question of health - there is a

system that rewards exercise, how

It can be compared with the

There has never been a trade

The internal newsletter is called

GE News and it comes out once a

week. In addition they have just

started with news broadcasts on

Photos also by John Peniche,

Text and photos:

Lars Cederquist

editor of GE News.

video. It will be once a quarter.

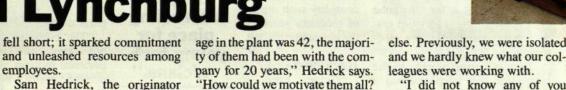
union at the plant in Lynchburg.

over is higher.

far one walks, etc.

Swedish exercise card.

no restaurant vouchers. Half an hour for lunch and two ten-minute breaks. Five weeks vacation, or six for those who have been employed for more than 30 years. (The sixth week, however, is not allowed to be taken consecutively with the five). The plant is closed for two weeks in the summer and few take more than two weeks vacation in a row. The work day is from 7.30 a.m. to 4 p.m. Right now they are experimenting with a second shift in the evening. If necessary employees work on holidays.



CONTAC



Hans Werthén is one of the leading figures in Swedish business, a man whose contributions to Swedish industry can only be described as historic.

Electrolux and Ericsson are two very successful companies, both of which emerged strong under Werthén's chairmanship. Now, with the privilege of age he is retiring from Ericsson but his views will linger on for many years still in the company's leadership.

"I felt that

telephones

were a little

outdated."

He cuts quite a likeable figure would play a prominent role also among the people, even though he in the world of telecommunica- to be - a truly knowis a typical industry type and wel- tions. Despite tremendous suc- how company while comes a debate. But he can never cesses at the end of the fifties with Electrolux can best be be accused of being an oppor- the "crossbar" system, a new type described as a material tunist. With immense acuity, this of crossbar switch for telephone company with masses gentleman in chalk-striped suit switchboards, the leadership saw of products geared to takes up the issues he sees as the future possibilities for elec- the consumer market. serious in today's Swedish society. tronics. Even though he is often wrestling

often a typical gleam in his eye and slightly red cheeks, which go over well in the era of color television. No wonder he has become somewhat of a darling with the mass media over the years.

His full name is Hans Lennart Oscar Werthén. He is 71 this year **Popular manager** and with the privilege of age he has begun to cut down on his engagements. At the shareholders many of the company's operameeting on May 8 Hans Werthén tions. He had already previously relinquished the position of chair- been known as a man of many and tacular. manship of the Ericsson board. He wild ideas, which was soon conwill continue as chariman of Elec- firmed. It took long and busy days trolux for a while yet.

TV pioneer

Stockholm, he applied for the post that Werthén spread through the cident. It did not take long for the television branch, the company of production director. With company. He was a almost ten years of pioneering versatile man who work in television technology be- handed out a lot of "Going over they wanted to fill the ducts," says Werthén. hind him, he was surely a little rebuke and who often to 'Lux' was skeptical about working with tele- made his rounds in the like taking a phones, but nevertheless was in- factory "to perk up a terested in the job.

'I thought then that telephones it at the time. were a bit out of date, made of At Ericsson, bakelite and mechanical things." Werthén made himself he recalls. At AGA and Philips he known as a man with had worked with electronics, usually good economic talents. phony again and to be in closer reaping successes one after the which was just beginning to make His interest in production contact with many old friends. other. its triumphant march around the estimates and economic analysis Then, like now, Ericsson was an "Precisely as when I myself world.

"For LM, as it was called at the profit margins. time, it would be interesting with When Electrolux began to get "That was only a few years after ly interesting place for young techmy electronic background. The worse at the end of the sixties, the AXE breakthrough on the nicians to seek a future. Not least, visionary leadership at the com- Marcus Wallenberg convinced world market and the situation for the opportunities for international pany had seen that electronics him to get over there. In 1967, the company reminded me to a experience should attract today's

"I myself came quickly to the **Backyard** with huge and seemingly insur- conclusion that telephony was a mountable problems, there is far deeper subject than I had im-

agined." he says, without beating around the bush. "Television consisted direction, while telephony is a matter of very complicated communications and interplay."

As production director, Hans Werthén quickly put his stamp on for his colleagues to bring his ideas to fruition.

Electrolux, a position he held until 1974, when instead he became a "working" chairman of the board, a position he holds full time up to this day.

beginning," Werthén recalls. "It was not only all the friendly col- technology bandwagon was easy leagues but also the very direction to jump on and there were many itself of the company. Ericsson companies that wanted to have

was - and continues

"Going over to 'Lux' felt like leaving

High Tech for a job in technology's backyard. The medicine that was prescrib-

young tech-

nicians."

ed for Electrolux had worked very of sending in only one rapidly. Werthén's firm hand and economic approach was just what the company needed. Today, the company's performance is very strong. Just like Ericsson, Electrolux is a very international concern but with the difference with a gleam in his eye, "we were that its internationalization to a not the only one to make this ergreat extent was achieved by buying up a number of companies, of which some were truly spec-

Back again

In the spring of 1981, Ericsson Future place Those who remember the years suddenly found itself without a It was in 1959 that Werthén first at the beginning of the sixties chairman, since Björn Lundvall came to Ericsson. During a visit in speak fondly of the positive effect had met his death in a tragic car ac-solution. With its venture into the

work for.

Werthén was named president of great extent of the way it was 20 years earlier when I first came to the group.'

"I missed Ericsson a lot at the everyone was talking about the paperless office. The computer

> in an attempt to really truly an interesting puter market. place for

perience in mass production really. With the results in hand, I

"But," Werthén remembers, roneous judgement. It is not without a certain amount of mixed delight that we can also say that several of Ericsson's major competitors came out worse for their computer investments."

"Selling out the computer operations to Nokia was a good other board members had entirely different chances to to decide on whom further develop our computer pro-

"I did not have to very clever strategic decision to hesitate when I receiv- concentrate its resources on the bit," as he himself put job in tech- ed the offer," Werthén traditional core activity - telenology's recounts. "On the con- communications. Today, we see backyard." trary, I was naturally the fruits of this concentration in glad to catch up on my the form of a financially very knowledge of tele- strong company which just now is

often led to considerably improved unusually exciting company to began at Ericsson at the end of the fifties, the company today is a tru-



break into the com-"The company did not have any ex-

realized that I, as chairman, should have warned more sternly of the difficulties this disconcerting experience could create." Werthén admits. That he did not seriously try to stop the investments, he sees now as his biggest mistake in all his years at Ericsson.

For Ericsson's part, it was a





Already in 1959, Hans Werthen came to Ericsson for the first time. Then, he felt, "telephones seemed a little outdated." During his long stay with the company, he has certainly changed his view.

youth, who by comparison are far better equipped than the youth at the end of the fifties. "The backpacking youngsters is something that we in the company should be glad about. They must learn that there is a world outside the Swedish duck pond and that they can improve their knowledge of languages," Werthén notes.

Presicely, a knowledge of languages is what he believes will be ever more important at a time when companies are becoming more internationalized. He himself commands a long list of languages, which certainly helped to bring home a lot of foreign deals.

Innate wit

The ready Werthénian wit is another predominant quality that nevertheless has not had any major significance in business, according to Werthén himself. On the other hand it has certainly contributed a great deal to spreading his viewpoints at home.

"True enough, a ready wit can be put to good use on many occasions, but I can assure you it is not a quality that I in any way seek to cultivate," says Werthén, adding:

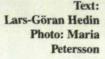
"One should not take oneself too seriously and should be content that all goes well just now. We are only eight million Swedes here in the world, regardless of how much we build ourselves up."

Strong leadership team

These words of warning are also applicable when it comes to Ericsson's future. It means that we should not be blinded and think that it is only a question of "beeping and driving." As luck would have it, Werthén feels, the company today has a very, very strong executive leadership which is a guarantee for a stable and positive development in the future.

"Björn Svedberg, Lars Ramqvist, C.W. Ros and Jan Stenberg

together make up the strongest leadership team in Swedish industry today. I can only wish them every success in the exciting years to come.



EA deal that both parties can be happy about

The deal was concluded at the end of last year, and as of January 1, 1990, Philipsson's Gräv och Schakt AB became a wholly owned subsidiary of ENS.

Incoming president Bertil Strid, left, and outgoing president Lasse Philipsson, old acquaintances since the sixties, seal with a handshake Ericsson's purchase of Philipsson's Gräv och Schakt AB.

Don't tell Lasse Philipsson that one should not dig his own pit. He has been doing that for close to a quarter of a century now and has earned a million and some doing it.

After many years in which Lasse and his company - Philipsson's Gräv och Schakt AB (Philipsson's Digging and Excavating Co.) — has been subcontractor first with SJ, the Swedish railways, and Banverket, the roadworks department, Bertil Strid, president of Ericsson Network Engineering AB (ENS) as of April 2, in his new capacity, thought that it would be just as well to buy the entire company with its some 70 employees, diggers and excavating machines of different types and sizes.

says "double president" Bertil Strid, naturally emphasizing the fact that the new acquisition makes puts it: ENS a more competitive and more complete network construction company

"Nice to get out of white shirts and tie," says Lasse Philipsson, AB, with 70 employees and a turnwho with that means first, that the company was growing way over million kronor, is the largest his head and, secondly, that he enterprise involved in laying prefers much more to be out in his telecable for Banverket. The comfield than to be sitting at home in an office and shuffling papers.

both men have known each other

"A good buy at the right time," since the mid-sixties, when both participated in a big excavating machinist. Or as Lasse himself "Bertil spliced and I dug."

Strategically right

Philipsson's Gräv och Schakt over in the magnitude of 30 pany was started in 1967 by Lasse, his three brothers Rolf, Rune and Interesting in this context is that Kaj, and their father Bertil as part owners. Initially, the operations

were really divided between two companies and when one of them was shut down Bertil, Rolf and Rune went out of the picture. Together Lasse and Kaj became fifty-fifty partners and remained so until 1978, when Lasse bought out his brother (who, nevertheless, still works in the company). At the beginning of the year, Lasse sold the company to ENS, which over all the years has been his biggest scustomer in many ways.

"For our part, from a strategic point of view, it is a good deal," confirms Bertil Strid. "Philipssons has worked for old network divisions in the parent company that have since become ENS, in the mid-sixties, and we are therefore well aware that it is a professionally run enterprise for cable work. Thanks to its very special method for laying, which only created the minimum amount of disturbance to train traffic, Philipssons has moreover a solid knowledge in terrain work, which could take years to accomplish in a company of our own.

"Access to Philipssons' resources and everything that comes with it in the way of coordination effects also gives the possibility of taking on smaller jobs with shorter lead times. Not least, our planned entry into neighboring countries means an increased area



Plowing for laying of optocable along tracks in the Värnamo-Halmstad strip.

that Philipssons offers. In other words, I am completely convinced that this deal would provide clear average for both parties."

1,000 km a year

Swedish railways, began to put Televerket, the Swedish telecom down telecable in the tracks on the authority, and by Banverket's own Stockholm-Gothenburg strip in personnel. what in a short time became the company's own nationwide net- kilometers a year," says Lasse. work. In the mid-sixties, Philipssons Gräv och Schakt AB came in- strips Stockholm-Gothenburg. to the picture. The first year, they worked with shovels and manual equipment, before those who were work in progress between Ånge responsible for the spadework and Bollnäs and there is a bit here joined teams and came up with and there around the country. We

of usability for the competence vanced and specially adapted implements for this kind of job.

In 1986, Banverket in what has now been split into two companies, began laying the optocable. Philipssons answered for the bulk of the operation, about 80 Already in 1924, SJ, the percent. The rest was handled by

"We will be laying about 1,000 "The bulk of it will be along the Gothenburg-Malmö and Stockholm-Malmö. But we also have suggestions for using more ad- reckon with laying to a large

degree just as much up to 1995. when Banverket's nationwide opto network, in which Comvik will also be leasing, is expected to be completed.

Photos: Rolf Andersson and

FOOTNOTE: Business Area Cable and Network (BN) is the third-largest business area within Ericsson. With affiliated companies, BN has 12,400 employees and a turnover of 7 billion kronor. Some 35 companies, spread over 20 markets, make up Cable and Network's globe-girdling organization.



Lasse Philipsson with his truck in which he transports mini excavators.

Kåbe Lidén K.E. Eklund.

Refilling and cleaning up after cable plowing, with Janne Karlsson at the shovel.



It began to feel empty at the office room out in Sundbyberg. As I took his business card, he tapped lightly on the box and admitted himself that he was a bit surprised that this was the last one. Thirty-four years at Ericsson. I read on the card, Manager Business Planning and Development. Later I learned that Sven Anders Johansson is someone who has never stopped developing; the last time he changed jobs was a year ago. After 34 years, his career can only be described as exemplary.

"I shall miss the job endlessly," he says. "I dreaded the last day: I should have prepared myself better. One should not misjudge one's capacity for going into retirement. It is much less than I thought."

Went to sea

It is a little difficult to know where to begin to describe Sven Anders Johansson. After some hours of conversation, one begins to feel that here is enough material to fill at least a serial story in a Impressive career newspaper. And there, we have only scratched the surface.

But we begin in Skellefteå, which soon became Piteå and with a very young Sven Anders who was already gainfully employed at the age of 13. Four years later, he had his first steady job, with the Royal Norrbotten regiment. During and after World War II, he trained in radio and telegraphy. ("You see, already in telecommunications then," he jests, noting that he has been in the business for 44 years.) And so, finally, when the war was over and the world had begun to hope again, Sven Anders could fulfill his dream — to travel. With Eyvind Johnson's "Romanen om Olof" ("Novel About Olof") in diploma in the other, he got a job in the merchant marine.

"Actually, it was then that I had my first contact with Ericsson," he



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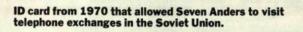
Подпись

Подпись

Подпись

It is virtually impossible to pin down Sven Anders Johansson and put him in one sole category. Just when you think you get him where you want him, he does a complete turnaround and shows another side of himself.

He retired on May 18, and Ericsson lost one of its more experienced strategists. Among other things.



2015

Chen

Janceon

recalls. "When we pulled into ports around the world, Ericsson employees often came to the boat to look at Swedish newspapers for news from back home."

Well, to make a long story somewhat shorter, Sven Anders got a high-school diploma by correspondence out at sea, began at Luleå Technical Institute and in the final term was chosen by that's right, Ericsson.

"My memories from the merchant marine played a definite role when I accepted. I thought, this job could suit me perfectly, an exciting life with travels and new projects in foreign settings."

That was the beginning of a long "love affair" with Ericsson. Here are a few of the highpoints of that extensive career:

1956 - First year, Working area, installation of telephone exchanges all over Sweden.

'60s - Beginning, an exciting one pocket and a telegrafist's time. Assignment, installtion of the tele section in the STRIL 60 weapons system.

1964 — Installation operations in Holland. Immense success for

Ericsson. Responsible for ETM's telephone exchange operations in Holland.

1969 - The Soviet Union. Becomes project leader for installation of transit exchanges of then unknown capacities. Moved with household and wife to Kiev. Something so unusual for a nondiplomat that the customs authorities almost refused to let him in

1971 — Invited to lend a hand with installation support for the 17 largest subsidiaries. Accepts, and succeeded in getting rationalization operations moving after extensive travel and missions, in a way that hardly anyone had expected

"I learned very soon that we were very clever technically," he says. "But we had a lot of difficulties in being cost effective, right down the line, from factory to finished product. Moreover, I felt that a project operation must always be linked to an economic directionary system, which all the way should indicate whether it's doing good or bad. This question had to be put every day. It just can't wait for accounting.

His increasing interest in economics led Sven Anders to learn more, and 1977 was time for a turning point in his career. He began to study economics in his spare time and on completing his examinations in 1979, he joined LME's Controller Department. The job involved monitoring sive setup of networking and financial results in certain subsidiaries and assisting board members and top executives with advice on economic effectiveness In 1987, Sven Anders felt that within the company.

Immensely demanding

After Ericsson's reorganization and creation of the business areas, when network construction and Sven Anders became Controller cable merged into one. New job for an entire business area - Network Construction, BN.

"It was an immensely deman-



In 1969, outside the telephone exchange in Alma Ata, the republic's capital in Kazakhstan in the eastern Soviet Union. Second from left, Björn Jönsson (then marketing coordinator). Far right is Sven Anders Johansson.

were forced to review the financial situation at all levels. The job demanded involvement of 110 percent.

"But it was also an exciting and regional organizations in Southeast Asia and invested in an extensignaling operations."

"There we were sort of pioneers within Ericsson," he says, shyly.

was enough - time for a new job as an assistant to the head of the business area.

In 1989, came the latest change again - as strategist, and now we are back to the office room in Sundbyberg. Sven Anders has just

had economic problems and we Sicily and has concluded his work on strategy for the '90s.

Vacation at last

'What will I be doing now?" he asks. "Well, first I'll take a real productive period. We built up the long vacation for the first time in my life. I'll spend part of the summer thinking about what I would work with in the future. "Work? Aren't you retiring?"

No, Sven Anders has never thought of just cultivating flowers and potatoes, and certainly not of starting to play golf just because he has reached 65.

"No, I do not feel that one has to branch out into some hobby when he goes on pension," he says. "I will never be able to stop working completely."

He would prefer to work with some kind of development job, for ding time," he says. "The concern come home from a conference in example, in the Third World, or some other kind of consultancy

work. "Otherwise it can be some sort of a Gray Panther job, where I can help other retirees. We'll see."

Loves Italy

One thing he wants to continue doing - to travel. And now at last he has time to do so, together with his wife Astrid.

"Yes, she has stood by Ericsson for many years. We have moved 11 times, and each time she had to pack up my extensive library. At times, when I come home from a trip, she says: 'Good day, Mr Ericsson.'

Sven Anders loves to travel to Italy. Yes, those of you who were lucky enough to travel with him there know why. A more knowledgeable and jovial Cicero, you have a long way to go to find. He himself describes this trait as "a keen interest" in Italy, and since "history is a little hobby" he began its studies with antiques and continued up to the Italy of today. "Italy is the absolute opposite of

a calm and conformist Sweden," he says. "But I find it stimulating with its 'chaos.' It is impossible not to be happy with all the 'madness' that is found in the Italian society. There is a wealth of creativity and

What's going to happen in the future? These are the answers from Sven Anders Johansson: "To begin with, we must in-

crease collaboration between BN and the group's other product and systems areas. There has been a certain drifting off through the business area grouping. There is a need to cooperate, especially with DX, where exchange and networking are systematically integrated in the new network.

- jahoka shakai - which translates as the 'informationalized society,' to be compared with the industrialized society. In line with the change, a subscriber system is being developed (voice, data and video based). The state-owned tele authority is oriented around telecommunications companies to service companies in the service of the informationalized society. This will mean new services, flexibility and efficiency in the entire branch. A host of new exciting net- every 200 inwork service problems for BN to habitants. A resolve, in collaboration with systems and product divisions within the company.

"Moreover, we must achieve an contriincredible expansion in networks butory since there will be an increase by partners personal and mobile phones to the should public systems.

human needs will call for radical a much alternatives, and I think that in the higher one.



Director Brandsma, then head of Ericsson Holland (ETM), with Sven Anders and his wife Astrid in 1969.

inventiveness in the country which eventually makes it function despite the chaos.'

He later expanded his answer into an interesting little lecture on both Italy's political and cultural development, with some concern on how the country could best save all its cultural treasures.

Sweden's history

The conversation soon shifted to Sweden's history and suddenly there I was listening to a story about the old mills work at Ullfors, as it turns out, Sven Anders, that idustrious man, has mapped and documented the entire construction history of Ullfors. With pictures in addition. In the form of signed aquarelles done with the best possible materials so that they could last for several hundred years

It is Ullfors, outside Tierp, that Sven Anders heads for when he wants calm and peace. There he has his centuries-old farmhouse, where city dwellers can change into unstressed country folk.

Still traveling

As you can see, the circle in which I thought of placing Sven Anders only grows bigger



In 1975, with the drawings in his briefcase for the intermediary station exchange in Cairo. In the background the large Cheops pyramid.

Sven Anders with a niature of the statue that was erected in Kiev as a souvenir of the inauguration of the first in-termediary exchange in 1970.

the longer we speak, with outlets in all possible directions. But there is one subject still to be discussed - literature.

Yes, with someone in front of you with one of Sweden's largest collections of Faulkner, it's just as well not to dally. Books have followed Sven Anders all his life, from his days in the merchant marine to today's business trips.

"In my darkest moments, I have thought that traveling is the only thing I know. That's why I have tried to use travel time for something useful; for reading. Of course, the author that has meant a great deal to me is Faulkner, together with Hemingway and Stein-

beck. Dos Passos and many others.'

"It was after the war, they came with something entirely new, social commitment."

In his youth, when Sven Anders did not have the opportunity to travel, the authors came to him, in a manner of speaking. Eyvind Johnson's "Romanen om Olof" is perhaps the book he likes most, it is the milieu he grew up with, the same innovations and upheavals that he has longed for.

"I think that is the journey I am still making ... "

Anna Hultgren

Sven Anders' vision of the year 2000

"There is a Japanese expression

"Even environmental and aside for

The '90s for Cable and Network, 2000s our industry sector will play BN, what would they be like? a decisive role in the daily course of society. Telecommunications developments will quite simply make that possible."

Sven Anders Johansson sketches a picture where we are offered an alternative, for example, that instead of grouping at large offices and other workplaces in the city, we can work in small satellite departments close to home and service units. Twenty-five to 50 persons working intensively together and communicating with each other with the help of fast and secure telecommunications.

Telecommunications can also play a decisive role for the Third World, says Sven Anders.

start and make a fast leap into developing. The aim of the international telecommunications union is that in Africa, by the year 2000, there will be a telephone line for shamefully low goal that all

"With its help, they can

cast

OUTLOOK BY MATS HALLVARSSON

Nineteen-eighty-nine and 1990 seem to be breakthrough years for one of the major competition trends in global telecommunications - internationalization of the services market. More and more "Televerk" (telecommunications administrations, the PTTs) are going abroad, with purchases and investments. That means more opportunities for business and tougher competition is being let in.

The traditional picture of the stable and all-power-the stable and all-power- beavily in establishing a joint venture with the Italian comstration, PTTs), protected by a puter manufacturer Olivetti in domestic monopoly, is beginn- an attempt to support its own ing to disappear. Round the computer operations. In like world, the monopoly is being fashion, it joined up with the attacked - borders are opening Dutch giant Philips' telecomup and competition is being let

This is completely in line market outside the U.S., not with the liberalization and de- least in Europe. regulation within telecommunications that began in the mid-80s and which, among other things, facilitated Erics- collaboration with Italtel, the son's entry into huge markets Italian tele administration, and like the United States and has taken over Istel, a specialist Britain.

These two countries have taken the lead in deregulating cess is still to be seen. The and demonopolizing their tele- British administration, BT, has communication markets. The even bigger problems. It in-12 EC countries are now in the vested optimistically and midst of a major effort that bought up the Canadian equipwould lead to common rules for ment manufacturer Mitel, a competition in markets that totally new market for the serwere formerly the exclusive do- vices giant BT. main of PTTs.

Similar liberalization is tak-ing place in the Nordic out. Analysts say that BT will countries, Latin America and Japan and is expected to do so soon in Eastern Europe. For ex- that it paid for Mitel a few years ample, Hungary has already in- ago. dicated that it will privatize its telephone network. Like not alone. All the other seven Poland, the country is seeking to implement new laws that will allow foreign companies to and, among other things, have operate telephone networks in competition with the public sector.

Therein lies the base for in- reach far. In West Germany, ternationalization of the ser- both American and British vices market in telecommunications. Nineteen-eighty-nine and 1990 are seen as breakthrough years. Last year, with the West German Bundesvarious tele administrations post for the market. were involved in no fewer than 25 large transborder deals with a total value of some 13 billion kronor. In 1988, there were on- now discussing with both ly six, with a total worth of Argentina and Chile about buyabout 750 million kronor. So far this year several major occurences have taken place. Among others, telecom administrations in Argentina, Interest is very keen, not least Chile and Mexico are being for such fast growing services privatized and are partly being like mobile telephony, data opened up to international joint communications and internapartnerships.

B ut it is no easy matter for ment means that the company will have more business opporway to the heated competition tunities when the market gets climate overseas. The two that even more customers. But that were first out, the American also means increased com-AT&T and the British BT, have petition. been badly burnt in some deals. AT&T, whose monopoly was

munications division to get a foothold on the switching

Both investments were a flop. Instead, AT&T has now been bought into and it has gone into in software within the telecommunications industry. The suc-

t has really gone badly for receive only one-third of the price of close to 2 billion kronor

AT&T and BT, however, are telecom operating companies in the States have gone overseas invested in the British cable television market.

The list for foreign deals can telecom operating companies were in the mobile telephone consortium that will compete

he Spanish tele admini-A stration, Telefónica, is ing into the operating company. And Mexico is out looking for partners for one of the country's largest operating companies. tional traffic.

For Ericsson, this develop-

Mats Hallvarsson is a freelance distributor.

The art of protect ing an idea

Intellectual property. That is not so strange and unfathomable as it may seem. On the contrary, it is something quite exciting. It involves protecting what our clever colleagues have invented. New products that help companies to maintain their position as leaders in world markets.

It was no major disaster if Ericsson employees came up with marvelous solutions to problems and made revolutionary discoveries and they were not protected in some way. But with time, however, it has become even more important to seek and oversee patents, for example. That's why the EC and GATT (the General Agreement on Tariffs and Trade) have laid down far-reaching groundwork in an effort to arrive at international agreements in this area. Companies are also investing more and more in trade mark protection, since there is money to be earned.

The U.S. market

When Ericsson broke into the American market with several orders it became even more important to protect its products. The number of patents within Ericsson, therefore, increased last year. But there can never be too many.

In order to reinforce this area, Ericsson has employed an intellectual property attorney at the corporate level with direct responsibility to Lennart Grabe (JD). She is Annika Ryberg and she formerly worked with similar issues at Industriförbundet, the Federation of Swedish Industries.

"Intellectual property includes copyright, which since 1989 is also one of the ways of protecting computer programs," Annika says. That means that as soon as the program is manufactured it is protected. It is also prohibited to copy the program. Trade marks. on the other hand, such as Hot-Line, must be registered.

"To protect the design of a product, sample protection is used," she says.

"There is still the data chip, which has to be dealt with. As the third country, after the U.S. and Japan, therefore, Sweden has passed a special law that will protect chips.'

Patent most important

"A patent is an idea protection that is sought in every country," Annika explains. "The intention is that he who comes up with an idea should have the chance to build up his operations unhindered. Later, when the patent expires - in Sweden it takes 20 years - the product has already found a market. At the same

time, other companies will have had the chance to develop the idea over a period of time and can take up the battle, when the patent expires.

A patent is always personal, but for officials there is an agreement between SAF (the employers federation) and PTK (an employees' union) which classifies inventions into three categories.

The first applies to inventions by employees within the framework of their own job specification. This belongs to the company

Who gets the patent for inventions that employees come up with outside of their own job specification depends on whether the company is interested in them or not. If the company does not want them, the employee gets the right to the

The third category applies to inventions completely outside the company's area of interest, and outside the employee's job specification. There the employee has the right to the patent.

Negotiations

Having many good patents can be meaningful, not only to protect the technology itself but also for marketing.

"A good patent portfolio can be used in many different ways, for example, in licensing negotiations or in the broadest sense to show that the company is forward looking," says Sten Hedberg at the patent and trademark department.

That a product contains many patents is also a sign that the buyer is getting something that is really good. Something that is worth protecting.

Large contact network

In order to see that the new ideas are really registered, the department has a large contact network. Within the company, there is a contact person who keeps his eyes open, and outside there are consultants and patent agents in every industrialized country.

But the department cannot just sit there and wait for the ideas to roll in.

"We are out and we have channels and discussions. We try to arouse awareness," says Tage Lövgren, head of the department. "We also go through the new projects and seek out ideas."

Self-critical

"The problem is that many are so self-critical that they think their ideas are not worth anything," says Sten. "Actually, it is enough with an idea that they could call here and verify," says Tage. "They can certainly come here personally, and, if they can't, we can go out and meet them.

"When we have the idea in our hands, we check with the patents



and registration office to make

sure that nobody else has come

come to us in good time," Tage

emphasizes. "The idea should

not have been presented in an of-

fer, at a trade show or especially

outside of the company; then it is

'We do not expect the idea to

be presented to us as finished pa-

tent applications," Sten says.

"But we need as much informa-

tion that can help us determine

what has to be protected. What,

how and why are the key words."

tent and trademark department,

they check that the same thing

has not been submitted earlier by

every 20 applications," says

Tage, "but that is very little."

"We get a refusal on one of

"From the date the application

"Unfortunately, it has happen-

is sent to the patent and registra-

tion office, the invention can be

presented publicly," says Sten.

ed that some people think that the

When the idea reaches the pa-

"It is extremely important to

up with the same idea.

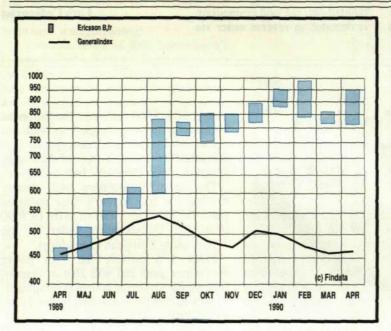
public domain.'

Not finished

someone else.

Important date

invention is protected once they have left it with us in Ericsson's patents department and therefore they begin to use it. A patent application must be submitted to the patent and registration office in order for the invention to be protected. If it's used before that, then there is no patent.'







In order to reinforce the area of intellectual property, Ericsson has hired an attorney at the corporate level with direct responsibility to Lennart Grabe (JD). Annika Ryberg previously dealt with similar issues at Industriförbundet, the Federation of Swedish Industries.

After eight months at the patent and registration office, the department recieves its first comments. After that, it could take several years before the patent is ready.

> Text: Helena Lidén **Photos: Maria Peterson**

We must play by the same rules

important in the international industrial world," says Lennart Grabe, corporate attorney at Ericsson. "It has undergone rapid change in the past ten vears.

Grabe recalls that when he began as an attorney at Ericsson, there was no need to spend much time on intellectual property.

"In the last four years, half of my time has been spent on issues of intellectual property," he notes.

Part of the explanation for this can be found in the trade war between the U.S. and Japan.

American industry is faced with ever tougher competition from Japan and other countries

'Patents have become even more in the Far East. The patent weapon can be used to stop the Japanese advance. European industry has also seen the significance of having a solid patent portfolio.

> The industry view of patents has changed. One no longer sees patents as a defense mechanism against competitors.

The patent can be a very effective weapon to overcome a competitor in a more active way. If anything, a company can claim huge licensing revenue from a solid patent.

A good patent portfolio could also make for the exchange of important technology through licensing agreements with other companies.

In the telecommunications area, the business climate and competition have toughened up.

It means that patents and intellectual property have also become even more important for Ericsson

The Ericsson leadership has decided to invest more to reinforce and develop intellectual property protection for its own products and its own technology.

"We shall see to it that we get the protection we need for our technological solutions," says Grabe. "And we must guard our property."

"We shall see to it that we play by the same rules as our competitors."

Fake products, a world problem

Fakes and plagiarism are becoming an ever bigger problem the world over. Fake luxury goods and designer clothes are becoming more common. But the problem is far deeper than that. To a widespread extent, for every original product today one can find a cheaper copy.

Staffan Jemeck is the general secretary in the Swedish national committee at the International Chamber of Commerce. He points out that 5.8 percent of world trade consists of fake goods.

"If one reckons that Sweden accounts for 1.8 percent of world trade and this amounts to about 300 billion kronor, then one can conclude that faking globally amounts to 1.2 trillion kronor a year

The most common fakes are luxury goods like Cartier, Rolex, Lacoste and Gucci

But fakes are found in all kinds products and sell them. Exact of other products too. A few years copies that could not be after the launching of the Diavox distinguished from the real thing. telephone by Ericsson and the If the fakes begin to go bad or Swedish Televerket, it was poss- malfunction, one can imagine ible to buy copies in Taiwan.

A frightening example of how dangerous it can be with faked goods is the case of fake pharmaceuticals. It is often the same quantity of faked goods in that people who fake birth-control pills, asthma drugs and antibiotics that fake luxury goods, so common now in Sweden and abroad.

"No one can see the difference between fake medicine and the real thing," Annika Ryberg explains. "The fake ones are just sugar-coated pills."

The large pharmaceutical firm Astra is one of the companies that was badly hurt some years ago. The fakers, who distributed the products in Southeast Asia, had gone so far as to use the same packaging printing house that Astra normally used.

For the company that has a recognized trademark, fakes can level of law for their legislatures. be detrimental. They can destroy The negotiating will be comall the good will that the company has built up over the years.

"Think if someone should begin to manufacture fakes of Ericsson

what an awful reputation Ericsson will be saddled with.

Thanks in great part to U.S. investments in Southeast Asia, the part of the world has shrunk. These countries have also passed better laws on patents and registrations

"The U.S. has responded very tough," says Annika. "They have applied trade pressure to get countries to something about fakes and other problems.

"The U.S. has the capacity to apply pressure. But what can little Sweden do?"

The solution for Sweden can come through GATT, the General Agreement on Tariffs and Trade, which is now negotiating a system whereby countries will determine a certain minimum pleted during 1990.

Helena Lidén

SHARE RADIN

In the past few months, Ericsson shares have climbed to record levels in both Stockholm and New York as a result of huge turnover.

New orders, among others a major breakthrough in the West German mobile telephone market and the surprising good results for this year's first quarter, took the market by storm. Profits almost doubled compared with the corresponding period last year, and group

ERICSSON'S SHARES

Date	Mutual Fund		Share Savings Fund	
	Share Price (SEK)	Assets (MSEK)	Share Price (SEK)	Assets (MSEK)
31 Dec. 1988	135	52,2	343	56,0
31 Dec. 1989	304	94,1	825	77,1
28 Feb. 1990	300	90,6	81	71,6
30 Mar. 1990	380	109,9	103	86,0

Share prices on May 18 were the highest noted so far. Trading on the fund's ownership of B shares and convertibles was simulta 1.095 kronor and 403% respectively.

leadership is now forecasting a profit increase of 25% for the year.

A week later, B-free shares shot up by 13%, surpassing the 1,000 kronor level. With that, the share price so far this year has risen by close to 20%.

Naturally, the new price levels mean that the key Ericsson share ratio is changed. The priceearnings ratio (earnings in relation to price) is now around 14, which is a good deal above the average for industrials on the Stockholm exchange.

A desk phone that cannot be tapped

Codeline is the name of Ericsson's latest phone. It looks like an ordinary desk phone and is equally easy to use. But it differs in one very important aspect. It has an encryption button. And when you press that button the conversation is encoded and it becomes impossible to listen in. Codeline is Ericsson's security phone for civilian use. For people with a high demand for secrecy.

On May 3, Ericsson launched a new product, Codeline - a security phone with built-in encryption function. It needs no adaptations in the ordianry telephone network; all that is needed for encrypting conversations is that both the caller and the person called should have a Codeline. One of them presses the encryption button to trigger the function and it renders it impossible to tap the conversation.

Ericsson feels the demand for encryption phones is spreading in business circles, government offices and organizations.

The phone is already in place among some of the company's top executives, and it will be eventually distributed around the world to subsidiaries etc.

The encryption phone is used against industrial espionage carried out by tapping. A reality that one cannot ignore and a competition tool that is becoming all too common.

Secure phone a must

The company's security director, Peter Flensburg, describes the situation:

"Telecommunications is exploding all over the world. The telephone is a work tool that one must be able to use. It's no use telling employees that they cannot speak about "secret" matters over the phone. The only way is to get secure phones that cannot be tapped. And Codeline is such a phone."

Flensburg stresses the requirements for an encrypted phone.

It should have a solid code that cannot be cracked. It should have clear voice quality so that one can recognize the person with whom one is speaking. It should be easy to use, and triggering the encrypter function should not be so

Codeline — Ericsson's new phone for people with a need for secrecy

complicated that it deters people from using it.

It should be able to be used everywhere, that is outside of Sweden, etc.

Secure and simple.

Codeline meets all these demands, says Flensburg. The security level is guaranteed in that the phone is approved by military defense cryptologists. They make sure it meets their demands for strategic communication.

There is also a built-in control in the set that verifies that the encryption is functioning all the time. Should there be a failure, an alarm immediately appears on the display.

As has been said, the set is simple to use. You call up in the normal fashion and when you wish to activate the encrypter (an encryption key is attached) you just press on the encryption button. Then it takes a few seconds for the encryption equipment in both phones to synchronize. The encryption lamp lights up and then you know that the conversation cannot be tapped. The encryption key does not have to be inserted anew every time you call.

Codeline is also easy to install

Lars Ramqvist and a handful of top executives already have the security phone.

(it plugs into a regular telephone jack) and it can perform all the technical duties of your old phone. You very simple exchange your old phone for a Codeline.

Digital encryption

The encryption technology is digital. The conversation is passed on to a speech coder (the same type as used in GSM) and is then transformed encryptically. It then goes out on the tele network via modem and at the other end the signals are decoded through a reverse process back to speech.

This is how the process works in brief, as described in Ericsson's pamphlet on security.

The system is built on algorithmic-based encryption. The specially developed algorithm, in

the form of a computer program, creates the core in a cryptogenerator. The algorithm directs a very complicated mixing process, where the digital bit configuration is built up through a number of sequence networks and mixes with many feedbacks in the process. A unique encryption key, which both parties involved in the call agree upon, is part of the mixing process. The then completed code bit configuration is mixed in the next step with the digitalized speech into a cryptogram, ready to be sent through a telecommunications network.

A huge market

On the receiving end, as pointed out, the said cryptogram is decoded in reverse order via

exactly the same equipment. Those who try to tap a conversation encrypted in this way will only hear a totally jumbled blur.

There is already a demand for security phones for civilian use. The market is growing very strongly, says Claes Ek, head of marketing for Ericsson Radio Systems.

One market research that was done in the autumn among some 90 Swedish companies, revealed that almost 70 percent relayed confidential information by phone. More than half of them felt the information was not properly protected. In other words, they needed an encryption phone.

Lars Cederqvist

AXE Center in Germany

Ericsson has decided to set up a research and development center at Aachen in North Rhine-Westphalia in the south of Germany. When in full operation in 1994, the center will employ about 500 people. The center, will be an integrated part of Ericsson's total development based on the AXE technology.

Ericsson Worldwide

The first task of the new development center will be to act as a European competence and development center for the digital, mobile communication system as personnel recruited locally.

(GSM) and personal communication (PSN) FIAR develops products based on the AXE system. Another important task of the future radar for

"European laboratory" will be to coordinate Ericsson's commitments in EC research projects.

Aachen's geographical position is very favourable in relation to the surrounding countries, in the border district of Germany, Belgium and the Netherlands. The central location in Europe also offers good means of communication, by land as well as air.

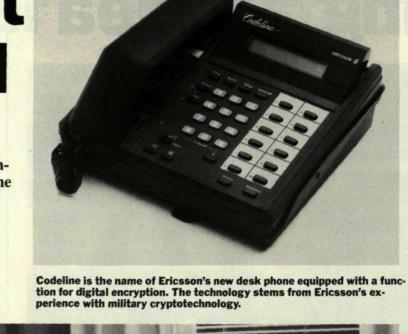
The new European laboratory will be manned with engineers from Ericsson companies in Europe including Sweden, as well

European fighter

Eurofighter GmbH on May 8 awarded the European Fighter Aircraft radar development contract to the GEC Ferranti Defense consortium. The consortium comprises GEC Ferranti of England, Telefunken Systemtechnik of West Germany, INSEL of Spain and the Ericsson subsidiary FIAR of Italy. The initial development contract is worth 300 million British Pounds (approximately SEK 3,000 million). The European Fighter Aircraft is a single-seat defensive fighter for combat and interception. It is developed for the Air Forces of the United Kingdom, West Germany, Italy and Spain.

The radar consortium will jointly develop the Eurofighter's nose mounted pulse-Doppler radar, known as the ECR 90 European Collaborative Radar for the 1990's, using European technology).

FIAR will provide the high power transmitter units and will also be responsible for the part of the system development. FIAR's part of the initial development contract is estimated at MSEK 550.





oversees Ericsson Network Engineering's interests in western Sweden.

bout a year ago, Rolf Samuelsson, 41, got a call in Gothenburg from a person in Stockholm who was wondering if it wasn't time for him - for Rolf that is - to try his hand at something new. The caller was Sture Wedin, from the marketing department in Ericsson Network Engineering (ENS). The two men had known each other since old times in Iran back in 1975.

"Sture had a concrete suggestion that meant I would be regional director in the company based in Gothenburg and with special responsibilities for marketing in western Sweden," says Rolf. "I didn't dare say no, since I certainly did not want to get up one day and realize that I had done something stupid."

n August 1, 1989, Ericsson Network O Engineering hired its first two regional managers. One was Hans Wiklund in Sundsvall and the other was Rolf Samuelsson, who, with that, left his post as chief technician with Televerket's cable-TV division in Gothenburg. The above is true, with some qualification since he would be working from now through the autumn as a consultant with Televerket for two days a week. The rapid expansion in the TV cable area has meant that Televerket is having a difficult time with recruiting.

A concrete result of Rolf Samuelsson's joining Ericsson Network Engineering was the assignment from Televerket to build a base network for cable TV in Partille. Another is the corresponding assignment, which is just getting on the way in central Gothenburg. Several more will be coming.

s a 21-year-old undergraduate engineer A with completed basic training in the military as a signals mechanic, Rolf Samuelsson launched into a career as a network project builder of local networks for Televerket in Gothenburg. In the summer of 1975, he got his first overseas job through Swedetel, a Televerket subsidiary. It was in Iran, whose telecommunications network he was involved in building. The last half year of the two years overseas before he came back home to Gothenburg and Televerket he was head of a group handling a total of eight projects.

But now he had a taste of being abroad and he remained at home in Sweden for just a year - and just barely that. Then came Saudi Arabia and Philips - L.M. Ericsson's joint venture to build up the Saudi telecommunications network. After two years in Saudi, on loan from Televerket to Swedetel and from Swedetel to Ericsson, he left, with hardly a stopover at home, for Curaçao and a job as adviser to the local telecom administration in connection with the construction of a tele network on one of the largest islands in the Dutch West Indies.

When Rolf at the beginning of 1982 returned home, his old job at Televerket no longer existed. Instead, he became part of a corporate organization that deals with technical issues. One of his first tasks was to begin mapping projects for the laying of cable TV installations. With that, the step to chief technician in the cable TV section did not take very long. He had been home only a few months when love sprang up between him and a working colleague named Susanne, who not long afterwards became Mrs. Samuelsson. The family spread



From his one-man office above the shipsstore, Rolf Samuelsson has a magnificent view over the harbor.

rapidly and today it also includes the three M's: Mikael, Mattias and Martin.

15

olf Samuelsson was born and raised in Björkö, an island in Gothenburg's northern archipelago with about 1,000 regular inhabitants. When he got the chance just before the summer of 1983 to return there, it was a circle that had finally closed. The Samuelsson family lives there today in an old schoolmaster's house from 1915, with about 200 square meters of living space plus a cellar and an attic. In order words, there are no problems with using one's leisure.

"No. To a great extent all the free time up to now has been spent working around the house," he says. "It is beautifully renovated today, but naturally it will never be finished. My free time has been so limited that right now I am not sure that it's worth keeping the sailboat. In any case, we never seem to get around to using it. Right now, we have a little motorboat instead and at least with that we'll get some fishing done in the summer."

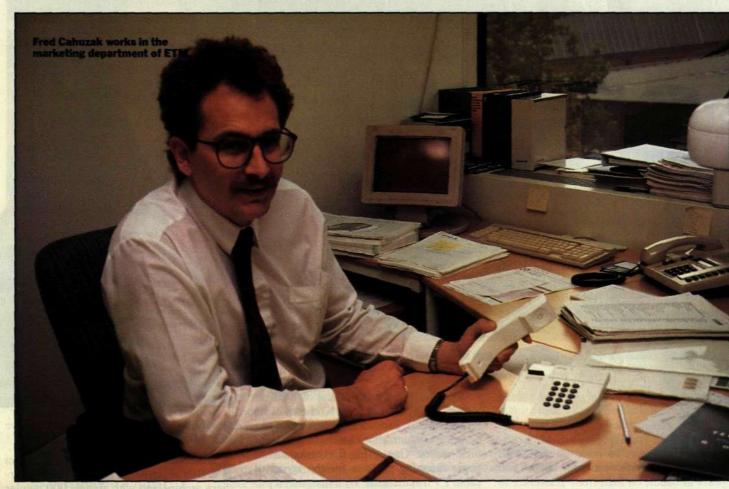
Ficsson Network Engineering's re-gional office for western Sweden is also located on Björkö, housed above a ships store. It may seem impractical from a communications point of view but the fact is that they have very regular ferry connections and the total trip to central Gothenburg does not take more than 45 minutes.

Perhaps many people wonder how it is possible to go from the social setting of a large and centrally located workplace in a big city to the relative isolation of an island in the archipelago.

"That would not be so easy if indeed I spent all of my working time at the office," says Rolf. "But now I am out in the field a lot and I am always meeting and working with new people. I also have friendly and wonderful fellow workers, except that it is a disadvantage to have them up in Stockholm... But seriously, the negative sides are easily outweighed by the stimulating challenge that there is in coming in on new operations from the start."

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A new telephone every year



Ericsson Telecommunicatie B.V. in Holland recently received a giant order for 800,000 telephones for Mexico. The order capped a record fast job to come up with a new analog phone, Dialog Standard baptized as Digiphone in Mexico.

Built according to a new concept for telephone production, Dialog Standard offers unusually good opportunities for marketing in several areas around the world. Hence, the Dutch are trying to get Ericsson subsidiaries in varoius countries to join them for an investment in the interesting consumer market.

Every year, some 25 million new phones are installed in the world. If one also counts the number of phones that are changed and those that are put in as extra phones at previous subscribers, the figure is three times as large — 75 million phones a year, according to calculations that Ericsson Telecommunicatie in Holland presented for company colleagues from other countries. ETM, as the company is known internally within Ericsson, wants to team up and also pentrate countries where at present they have no sales.

Contact

Traditionally, since the beginning of the '20s, ETM has had a very strong presence in Holland. With sales via the Dutch PTT, ETM has taken 75-80 percent of the market for telephone sets. It reckons that it could maintain this postion too now that the telephone market is being deregulated.

ETM's phones are marketed as quality and brand-name products to consumers with a high demand for function and selectivity in phones. That's why the new generation of analog phones were developed to faciltate change in precisely those questions of color and design. In this way they can also give the telecommunications authorities the coveted possibility for frequent "model changes" — a new phone every year is the wish of many.

Quality product

"Our investment in top quality has paid off well in Holland," says Fred Cahuzak of ETM's marketing department. "The fact that our phones are more expensive than those that come from low-cost countries in the Far East is self-evident also for our Dutch customers."

It was the anticipated order from Mexico that propelled the work on the new phone. From the very first idea in November 1988 right up to the start of production in January this year, it took hardly a year — a record short time in such a context. Still, Dialog Standard — the "official" Dutch name for the phone — in many ways was devised after completely new ideas.

Motor concept

"We call the basic idea a 'motor concept," says Roel van Wilgenburg of ETM's production department. "The idea is that the main telephone set is produced separately from the phone's lid. It is only shortly before assembly that the phone gets its final appearance."

Ericsson Telecommunicatie B.V. has 1,700 employees in Holland, of whom 800 work with production in Rijen, where the head office is also located. The company produces not only telephones but also the business switch MD110, among other things. Economically, it comes under ETX in Sweden, but marketing and strategic planning, along with other matters, are coordinated via EBC.

<u>A Dutchman</u> <u>goes after an</u> <u>investment in the</u> consumer market

"This way we can simply introduce the new designs without the need to put work into changes in the main section," Cahuzak points out.

Since the technology for analog phones is not expected to change so much in the immediate future, ETM reckons that the "motor section" in Dialog could be produced in very large series and at very competitive prices.

Rationalized factory

Telephone production in Rijen has previously reached as high as 600,000 analog phones a year, plus a couple hundred thousand digital sets. With the new generation analog sets, one can reckon with up to 1.5 million a year. "An annual output of 1.5 million is an economically good production level, but absolutely not a ceiling for what we could accomplish," Cahuzak says. "The factory is very rationalized and at present is operated in two shifts."

Needs sales help

Besides the Netherlands and Mexico, Finland is also an established market for ETM's phones. After attending CeBit, Cahuzak and his colleagues in the marketing department know that there is considerable interest for Dialog in many other countries.

One of our biggest media personalities

he other day I met one of my absolute favorites in the rather limited group of people who, through TV and other mass media, speak to us Swedes of what things should be like in the world today. A man who, in my opinion, ranks as our very best TV entertainer since his subtle comments are often razor sharp and clever. And because I have never seen him at a loss for an answer or stunned.

The man I met was, of course, Hans Werthén. He is a person who meant a tremendous deal to the company in which he has been active. It is not without a certain shyness that Hans Werthén points out that the chairman



of the board plays an important role in what actually happens. But he hastens to point out the significance of the input, large and small, of all the various fellow workers for a company that temporarily finds itself in swing.

Of course, Wertheń is right on that point — a major company like Ericsson can be linked to a giant tug-of-war team where everyone pulls his weight, over and again, making an important contribution.

One of Hans Werthén's most important contributions in the last couple of years has been to support Björn Svedberg and the others in the executive leadership when they were faced with difficult decisions. According to his own statement, he has never wavered in his confidence in these people's ability to lead the company the right way.

But where has Hans Werthén himself gotten his support? I still had that question in the back of my mind when I concluded the interview. Hans Werthén took up the "support" question himself when we photographed him, very much in his well-known humorous manner. The photographer asked him to lean against a tree in order to get a more interesting shot, and he got a taste of life. "This reminds me of when I was a recruit during the war. We were standing there as usual grooming the horses one morning and I was unusually tired since it was a Monday. I stood there half asleep, leaning against a stallion when an officer passed by.

'Is that horse sick, Werthén?' the officer inquired.

'No. Why?' I asked.

'I just wondered, since it appears to need someone to support it."