

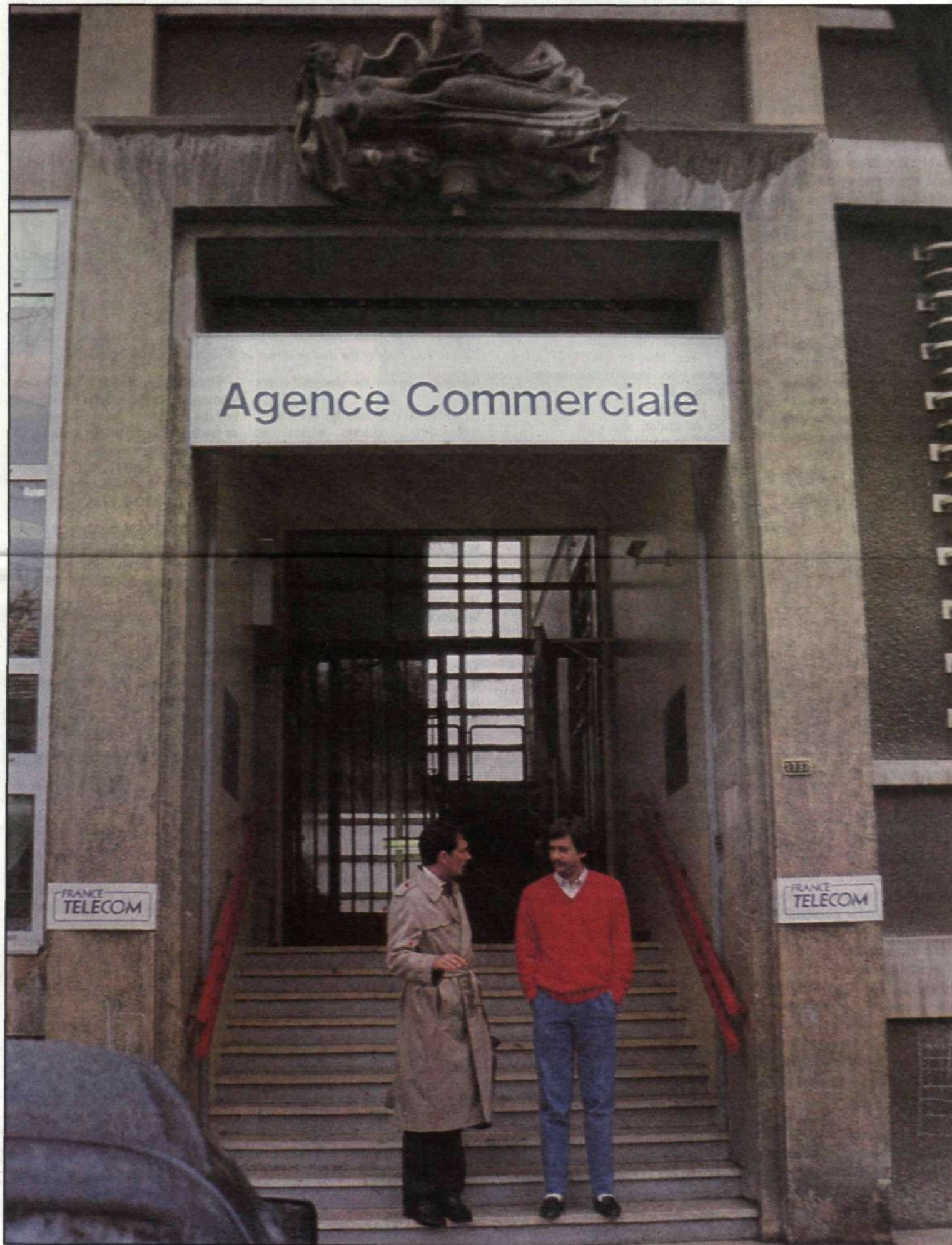
Contact

M A N A G E M E N T

No 5

PUBLICATION FOR ERICSSON MANAGERS WORLDWIDE

1989



At France Telecom's installation in Chaville, a suburb of Paris, is the first digital AXE switch in France, a main exchange with a subscriber link in Vaucresson. Already in the planning stages are a further eight digital AXE stations. Pages 4 and 5.



From 0 to 25 in five years

Exactly five years ago, Ericsson inaugurated the first mobile telephone system in the United States. It was the start of an expansion in the United States and Canada that has proceeded at a rapid pace. Today, Ericsson has more than 25 percent of the total mobile telephone market in North America. Page 8



Credit halt in China

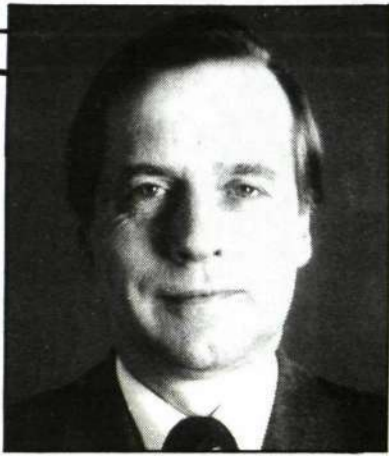
China was the closed giant market that opened up its doors in the early eighties. Now, following the dramatic upheavals at the end of May and the beginning of June, uncertainty is widespread. Ericsson's investments, among others, are threatened after a halt on credit and aid. Page 7



Culture mix with the first French AXE

Two years ago, Ericsson bought into France's CGCT. The newly acquired MET has now merged two cultures successfully and has introduced the first French AXE station in the Paris suburb of Chaville. Pages 4 and 5

Share price hit a high • Page 3



Within half a year, we will be moving into the nineties — an era for which we have prepared ourselves in many ways. We have done so with an Ericsson that is stronger than it has been in many years. Restructuring and rationalization are the key words behind a remarkably improved result, a record share price, regained external trust and a positive outlook within the company that is noted at all levels.

Our departure point for the nineties is very good overall. But the nineties will also be a time of new demands and conditions that, in the long run, could threaten our competitive edge if we do not move in the right directions. Our products are world class and our name is equated with quality. Behind all of this lies what is really our foremost competitive tool — qualified and motivated personnel at all levels.

The nineties will see changes in the workforce. Youngsters who are leaving school can, in many cases, pick and choose among companies offering jobs. It will not be enough to have competitive products. The workplace where the products are manufactured should also be competitive. In many cases, that is not so today.

Today, to a great extent, most youngsters have some form of secondary education. We must assure that for these graduates of the nineties working in manufacture is attractive as working in the traditional manner.

Hence, it is important for us in the first place to invest in two things. First, we must have a broader work content in production and shift responsibility down the line, so that more responsible jobs are opened up. Secondly, we must actively strive to change the image of Ericsson.

We are no longer simply a manufacturing company; we are largely a high-technology-oriented company on most levels. The so-called MAXE project (the new production system and organization for AXE housing) at the main factory at Telefonplan in Stockholm is a good example of how we now consciously invest and increase the work content within production in order to achieve attractive workplaces. This does not mean merely getting young people to our production sites but rather being able to keep them through interesting job prospects, with personal development and job satisfaction that follows.

For the higher educated we still have much of our attraction. But even here we must invest in the competence we have in order to achieve the necessary elements for personal initiative and acceptance of responsibility. For the company, that can mean increased effectiveness and flexibility and for the employed better development opportunities and alternative career paths. An example of this is the KOMPASS method (goal-oriented competence development) which has now been launched within the product management division, X, in Ericsson Telecom.

As an employer, Ericsson, with certain right, is seen as a technical company. Earlier, we could have a clear appeal with that. This is no longer the case.

Now, we must, by every means, with concrete approaches, see that we retain and strengthen our competence and strength in order to be able to compete with our products and services in the dynamic world market of the nineties.

Björn Svedberg

Here Ericsson is building one of the world's first ISDN network

Over the vast Australian continent, one of the world's most advanced telecommunications network is being built. And in the establishment of this vital element in the information society, Ericsson is playing a key role. Voice, text, data and image can, through the ISDN network be relayed quicker and safer than before, at the same time making it easier to use. And the telecommunication development in this area is, to a considerable extent, being done by Ericsson in Melbourne.

"To Broadmeadows, thank you," I said to the cab driver.

"Yes. You are Swedish and you must be visiting Ericsson," he responds.

L.M. Ericsson Pty. Ltd. is known in Australia, and especially in the million-population city of Melbourne where its headquarters are located. Ever since the first electromechanical switch was installed in 1957, the company has been closely intertwined with modern telecommunications here.

One of the major successes came in 1987 when Telecom (the PTT authorities) chose Ericsson to supply the equipment for its ISDN network. But even then, the Swedish company had already set its sights on the Australian telenetwork with its AXE stations.

It is interesting to note that in this perspective Telecom is both Ericsson's largest customer and competitor.

"It is a matter of 'professional play' that is based on respect and competition simultaneously," explains Brian McKay, head of public relations.

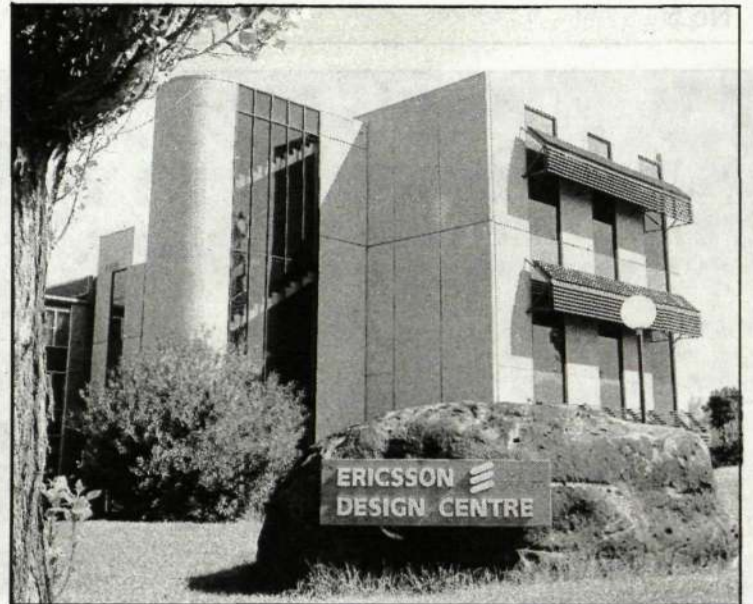
He sees it that relations with the PTT authorities are harmonious, something, he feels, other companies in the group could take a lesson from. Telecom in Australia has recently achieved a solid market penetration and has taken on many of the responsibilities of the telecommunications authority. According to McKay, one can say that the old telecom administration is mature and strong enough to withstand the competition.

"One does not have to be afraid of the PTT so long as one functions professionally," says McKay.

ISDN leads

A sign of the "mutual respect" was that Ericsson was evident as the main demonstrator at the CCCIT's session in Melbourne in the autumn of 1988. Delegates and invited customers could test, among other things, hooked-up connections with telephones, group-4 fax and video between Melbourne and Sydney. In all, there are four different data relays connected through the MD110.

"Since the new ISDN network here is developed after CCCIT standards, Australia has been given a



270 persons work at the design center at Broadmeadows in Melbourne.

leading role in its design," says McKay.

Australia can also be seen as a data-mature society, which, as such, has a need for an integrated text/data system, for example. Among Ericsson's larger customers for company switches is the electricity authorities in the state of Victoria, as well as installations at the Westpac and ANZ banks with some 8,000 connections.

Another important business area is mobile telecommunications, where Ericsson has supplied base stations and other equipment. Mobile telephones are not as widely spread out as they are in Scandinavia, but the potential is there, not least because the density of cars is high and also because of the long distances.

Company resources

"We are not only concerned with the adaptation of products from without but we also participate in the design of equipment for the world market," says McKay.

A new development within the AXE family is the AXE 104, which took shape entirely at Broadmeadows. The switch is designed for use in the Australian outback but it can also be exported to the Third World.

Out of an investment of about 1.5 billion kronor, Ericsson Australia devotes about 9 percent to research and development. Some 270 persons work at the design center at Broadmeadows, the country's largest of its kind. Many of them are involved in the ISDN project; development of the programming for the AXE stations according to CCCIT standards, adaption to the Australian telenetwork and hookups between public telestations and customer exchanges.

Export of support

The underlying principle is that ISDN provides digital connections through the entire network. The problem with parallel analog and dialog traffic can be bridged with a single digital track for voice as well as data. In this way, the user of the MD110 can have the advantages of the system too outside of his own company.

The Broadmeadows Design Center is also behind the ASDP 162 and the FSD 10, a system for currency trading that came out in 1988. In many areas, Ericsson Australia is a competence center for the group. During the eighties, exports accounted for about 30 percent of its sales.

Melbourne is also the source for a number of activities concerning support and service for clients in Asia and islands in the Pacific. Behind its working, there is always the thought that the company, despite its international character, is fundamental to Australia's business. More than 2,000 people are employed in different states and Ericsson has recently set up a training center to support small and domestic companies in the development of new projects within the electronics field. At the same time, there is, naturally, a strong link to Sweden.

Some 50 Swedes

"We have some 50 Swedes working here; our strength lies in being able to combine the Australian and Swedish cultures," McKay points out.

Like most of Swedish industry, manufacture at Broadmeadows is highly automated. The factory functions according to CIM, data integrated manufacture.

Dangerous and monotonous working environments have been reduced through robot technology and the ambience allows for plenty of flexibility. The work is patterned after the concept "just in time," that is to say production can rapidly be adapted to the data models that determines the processing and storage costs can be held down.

Ericsson Australia works in a setting that is interesting in many ways, partly through its location in the Pacific region, but also through its establishment in Australia itself. With 16 million inhabitants, in an area as large as the U.S., there is enormous potential for growth. Hence, the immediate quest for new means of disseminating information through digital technology.

Jacob Schulze

C.W Ros

How we hit a record

About a year and a half ago, Ericsson shares stood at 150 kronor. At the end of May, this year, it set a record and for the first time passed the 500-kronor border.

"There are a number of reasons as to why we have gone up so strong," says vice president C.W. Ros. "Among others, there is the fact of our improved results last year, which have unleashed expectations that we have been able to fulfill.

C.W. Ros points out several other factors behind the sharp rise in Ericsson shares.

"The telecommunications market is one of the markets that can enjoy a very positive development in the next two years. It is not particularly sensitive to market conditions. In addition, there is naturally speculation about the mobile telephone market and the potential to be found there.

All of this has made it so that the impression of Ericsson on the market is definitely positive.

Naturally, that influences the stock trading. Added to this, is the situation on the Swedish share market itself.

A number of other companies in Sweden have long since had a sharp rise in their share prices, Ros explains.



Carl Wilhelm Ros, vice president for Ericsson.

As a result, they may be more sensitive to market trends than Ericsson. There is, then, a definite opening for advancement among companies with further improvements in the next few years. And therein lies Ericsson.

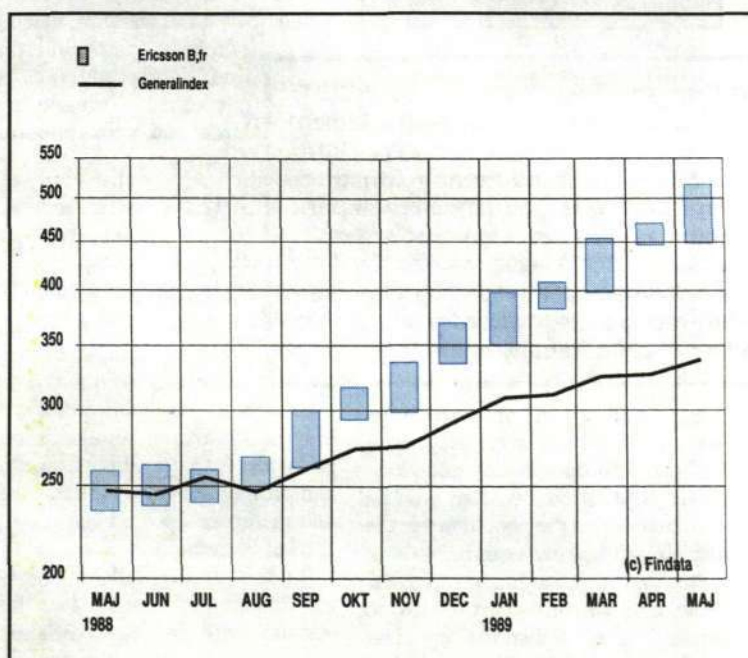
An Ericsson that is highly valued on the Stock Exchange in Sweden and, moreover, by many international investors. When they show interest in a stock, the share value on the exchange climbs even more.

SHARE TRADING

Ericsson's B share has had a heavy demand during all of May, and the price has gone up to more than 500 kronor and reached an all-time high.

The market has reacted to the optimistic tone of Ericsson's leadership that was set at the shareholders' meeting in the middle of May. Above all, what is particularly impressive is the continuing good order input, which increased by 35 percent in the first quarter this year, compared with the same period in the autumn.

Profit increase of about 30 percent, adjusted for the strike during the first quarter of 1988, was in line with market forecast, which is now put at a profit of about 2.5 billion kronor for the year. The share price has, with an increase of more than 25 percent, figured on the index this year.



ERICSSON'S SHARE FUNDS

	General Savings Fund		Share Savings Fund	
	Price (SEK)	Value (SEK million)	Price (SEK)	Value (SEK million)
31 Dec. 1987	70	27,1	147	31,7
31 Dec. 1988	135	52,2	343	56,0
28 Apr. 1989	162	59,7	418	50,4
22 May 1989	181	66,4	481	57,4

The share climb for the general and share savings funds has reached 30 and 40 percent respectively for the year.

Up to the middle of May, some 500 persons had registered for

new savings in the general fund.

It is possible to go into the fund at anytime during the year, but those who want to take advantage of the loan offer must register before July 1.

OUTLOOK

BY MATS HALLVARSSON

This summer can be decisive as to how the European Community members will liberalize their telecommunications markets in the future. At issue, is the power of the large tele monopolies, a question that at the highest level concerns one of the largest suppliers, Ericsson.

The European Community's plan to have, by 1992, an open and free market for goods and services, capital and people is moving at a fast pace. But the most difficult issues have been left for last. This is the liberalization of the telecommunications market.

The EC Commission, the policy making and overseer body, has proposed that the public telecommunications monopoly should be split up along certain lines. Private companies should be able to sell services like videotex, telebanking, teleshopping and electronic mail over leased telephone lines. Even "unprocessed" data communications will be liberalized from January 1, 1992.

Member states are divided in their views on liberalization, but as a group they are more or less unhappy with the manner in which the commission chose to implement liberalization.

The commission based its support on Paragraph 90 in the EC's Basic Law, the Rome Treaty. This grants the commission the right to rule on the limits of public monopolies without first having to obtain approval from the respective governments.

The commission obviously chose this route in order to advance rapidly. The member governments are still not quite certain as to how far the liberalization of the telecommunications market will extend, which threatens to delay and dilute the results.

Britain, Holland, Denmark and West Germany are prepared for fast and far-reaching liberalization, while the southern EC countries want to retain their monopoly at least in heavy data communication.

There is much at stake; the teleservices market is put at more than 4 billion kronor per year in the EC. Countries where liberalization has made some inroad, like Britain, can count on their companies having a headstart. They stand to benefit from the freeing of the entire EC market. The Latin EC countries are afraid of competition.

In every instance, the EC commission wants the PTT telecommunication authorities to maintain their monopoly over the tele networks and common telephone traffic such as telex. But the authorities'

exercise of power should be separate from the actual management.

In the background, there is also a conflict from last year when the EC got together on breaking up the monopoly of the terminal market, tele equipment, such as telephones, faxes, modems and other products.

The commission was backed by all the member states on the liberalization measures. But four states — France, West Germany, Belgium and Italy — have accused the commission of overstepping its bounds, that is to say the manner in which the liberalization was put into effect.

The risk is now great that the southern EC states will again back the commission if it goes further with its plans for service liberalization.

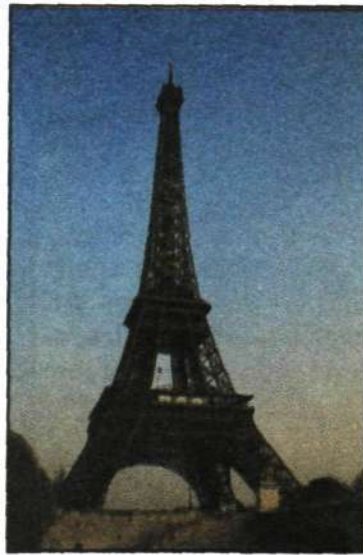
A breakthrough is expected during the summer. In July, France will be chairing the commission, which will give it immense influence in determining which issues will be dealt with under its chairmanship. Moreover, a decision has to be made if the timetable for 1992 is to be met.

It is felt that the commission could compromise with the southern states in such a way that one could bypass the liberalization for unprocessed data communications. But it wants to go beyond Paragraph 90 with obligatory dismantling of the monopoly in other tele services. But what would the northern member states say to that?

Another alternative could be to begin from the beginning again without binding itself to Paragraph 90 of the Rome Treaty. But how will this affect time planning? What would those members who are, in any event, more or less resistant to liberalization say?

The third alternative, and perhaps the most feasible, is a tradeoff where other issues and decisions are thrown into play and are hinged to a number of compromises.

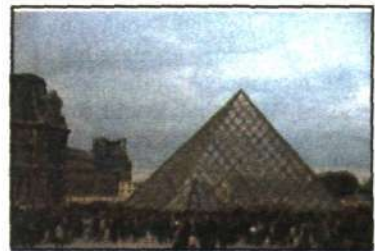
Overall, it seems like it's going to be a hot "telecommunication summer," with some major issues, not least for telecommunications suppliers like Ericsson. In any case, the result should still be some form of liberalization. This means increased business opportunities for Ericsson. But also increased competition.



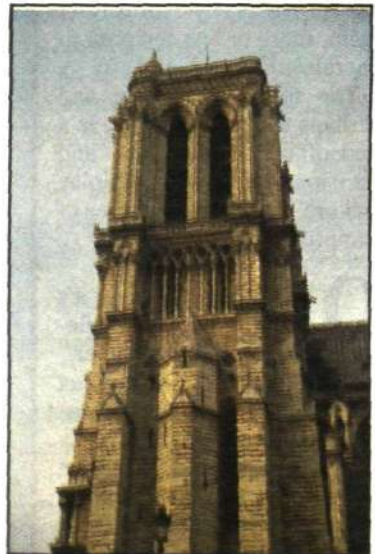
The Eiffel Tower stands proudly as it marks its 100th year.

Paris - a wonderful mix of old and new

The Parisians know art. The art of combining elegance, taste and harmony. Blending the old and the new. The new glass pyramid, at the Louvre has had all France queuing. In liberty, equality and fraternity. It takes hours to get in. All over, they are building up and building on for the Fourteenth of July, the 200th anniversary of the Revolution.



Pei's glass pyramid rises gracefully in the Louvre courtyard as a landmark to be reckoned with in time.



Notre Dame has seen it all. Revolution, dread, death, love and celebration.

France remains open for Ericsson

It is now two years since MET, Matra Ericsson Telecommunications, was founded. It was an occasion that allowed the Ericsson group leadership in Sweden to breathe a sigh of relief and one that marked a turning point in market development. Nils G. Söderquist was summoned and named to head the operation. What has taken place since then?

The surprising press release from the French Finance Ministry on April 23, 1987, contained a message of victory. It was a victory for Ericsson, which in a joint venture with a French consortium was to take over the French telecommunications company CGCT (Compagnie Générale des Constructions Téléphoniques). This meant that Ericsson would acquire 16 percent of the French telecom market.

The homestretch in the competition was against the telecommunications giants AT&T and Siemens. After the down years of the early eighties, the Ericsson group enjoyed a respite. Once again, Ericsson showed its skill in international negotiations.

As is more and more the case, what is sought is not merely a full-fledged telecom system but also a readily accessible supplier that can provide knowhow and production as well as long-term technological development in the country in question.

Ericsson can in the new company MET, Matra and Ericsson, offer France these advantages.

In 1987, after several years abroad with Ericsson, Nils G. Söderquist, came to Telefonplan in Stockholm. He had been on the scene with two market breakthroughs in Spain and Mexico and was happy in his new role as economic director at Ericsson Telecom at home base in Sweden.

But the French accord of April 23 altered the situation. He is now head of MET, thrown again in the midst of the fray in Europe, on the scene of yet another market breakthrough.

It is now two years since the company was founded. What has happened since then?

Cleaning up

"It was tough at first," says Söderquist. "We had to begin with a thorough cleanup. Six hundred people had to be laid off. The administrative side was too large."

"It was a painful process, but the



Nils G. Söderquist has seen most of the world and speaks several languages. A Swede with a light and piquant French touch after all his years abroad.

After two years,

MET has

successfully

linked two

company's

cultures

Matra Ericsson Telecommunications, MET, is an Ericsson led company with a 26 percent Ericsson minority ownership. Matra owns 49.9 percent, the French construction giant, Bouygues, and the French Banque Indosuez own the remaining share.

Previously, CGCT was owned by ITT, which was taken over in 1982 by Thomson and the French state. It has now returned to being a private company again.

French authorities supported it, as well as the unions, who knew what had to be done in the company. Good old products had to be dumped so that they could not get in the way of the new system."

"Now, the cleaning up is over. Now, the interesting part begins, to streamline and polish the organization before 1991/1992," says Söderquist.

AXE comes in

"We have a five-year agreement with the French state. The agreement even allows us to export a certain number of lines per year," notes Söderquist.

The agreement with France Telecom involves 300,000 lines per year and corresponds to 16 percent of the French telecom market. Alcatel, the French telecommunications concern, has 84 percent of the market.

Two cultures

MET is a company wherein two

cultures merge. Swedish technology and French organization in the midst of the Paris industry world. For Frenchmen who worked in the earlier CGCT, the new company represents a total change.

It is, in effect, Ericsson that has the operational responsibility in the company.

Investment

The company invests in production, development, AXE testing. It is investments that count now.

"We are in the process of building a very strong technical department, where we will not only apply AXE to the French market but also pursue development together with Stockholm, says Söderquist.

And how goes the cooperation in this united culture?

"It is working fine," notes Söderquist. "We have had positive results and are happy with the situation."

The company was off to a flying start. The manufacture of AXE began as early as May 1987. The same day, five Frenchmen left for a one-year training course in Sweden.

"We did not lose a minute," Söderquist explains. "There were already production plans and we had no problems realizing what we set out to do. Today, we are on schedule as far as training, machine purchase, parts introduction and production are concerned. Training is a large and very important aspect."

Future

And what are the prospects for competing with Alcatel in the future?

"Alcatel has its defined position in France," answers Söderquist.

"But with our good quality, not only in production but also in contact with customers, in organization and prompt delivery, we can expect an increased percentage of the market in the future.

But the future entails much more for Ericsson in France. In a joint venture with Matra Communication, it is developing the new Pan-European digital mobile telephone system. France Telecom has already chosen to allow MET and Matra Communication to set up a mobile telephone network in Paris for 10,000 subscribers.

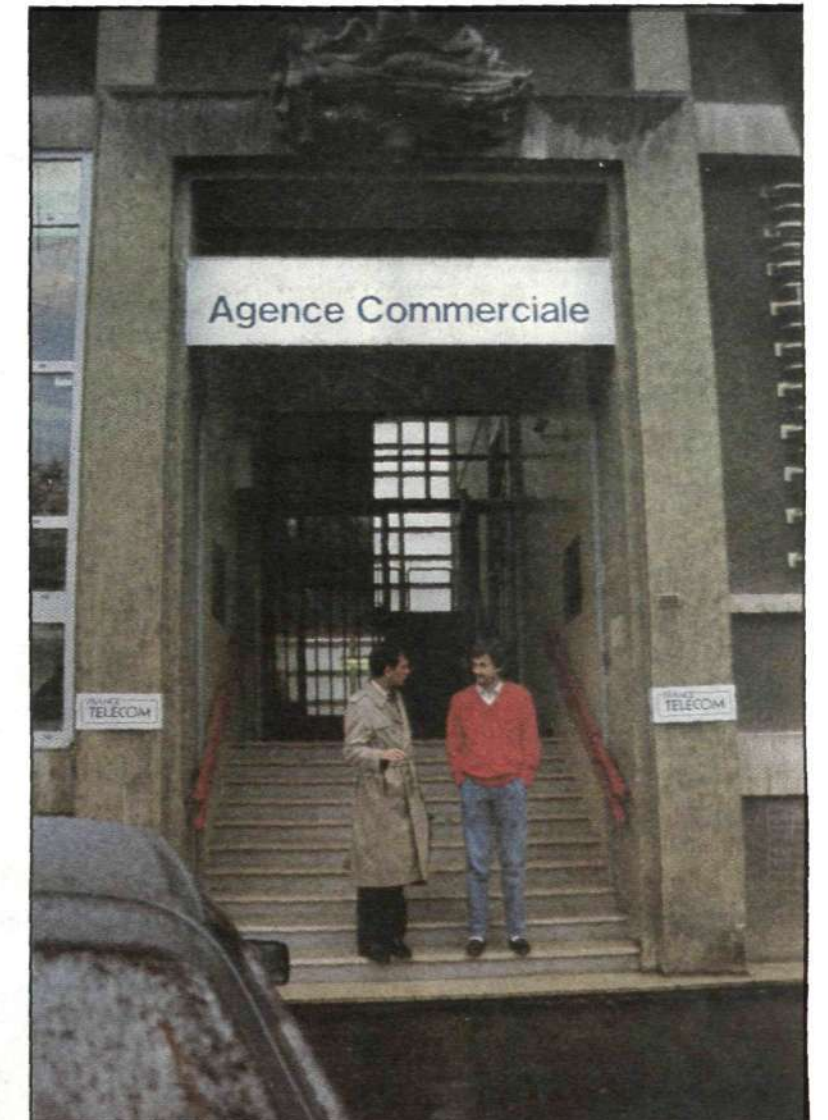
In the field of telecommunications, the borders tend to blur more and more. To share knowhow and cooperation and to build alliances is the formula for future success for the huge companies.

The French market, through the access offered by MET, stands open for Ericsson.

Inger Bengtsson



The office, with the administration side, construction and development, and installation testing is in Massy, a Paris suburb. A modernized older factory site, with lots of space and greenery, houses the new "French" AXE culture.



At France Telecom's installation in Chaville, a suburb of Paris, is the first digital AXE switch in France, a main exchange with a subscriber link in Vaucresson. Already in the planning stages are a further eight digital AXE stations.

Six Ericsson countries adapt AXE for France

On Monday, January 30, MET handed over the first digital AXE 10 to CNET for approval. It came 13 months after the customer France Telecom approved Ericsson as supplier of a pilot installation in Chaville.

The main exchange for the first digital "French" AXE switch is at France Telecom's installation in Chaville, which has a subscriber link in Vaucresson. It has a capacity for some 20,000 subscriber lines. The switch is driven by Ericsson's most powerful processor, APZ 212.02. It is expected to come on stream in the fall of this year.

Chaville

Ulf Uddsten, who is responsible for the tests in Chaville, has many years of overseas experience with Ericsson. He took me around the installations at France Telecom in Chaville one early April day, the first day of snow in Paris in 1989.

"The advantage of the AXE system is that it can grow easily and acquire new functions compatible with, for example, the French system," says Uddsten.

Adaptation of the system to French demands has called for huge re-

sources. It is almost specifically a question of special functions in programming which has been changed to accommodate customers needs.

Teamwork

Several Ericsson Telecom companies abroad were involved in the adaptation process. Among them were ETM in Holland, Intelsa in Spain, LMI in Ireland, LMF in Finland and Ericsson Telecom in Stockholm. They have all done their share in programming. One person did his part in Finland in a construction that could communicate with a part that was being made by Intelsa in Spain. It was a way of utilizing the skilled technicians that make up Ericsson.

Final test

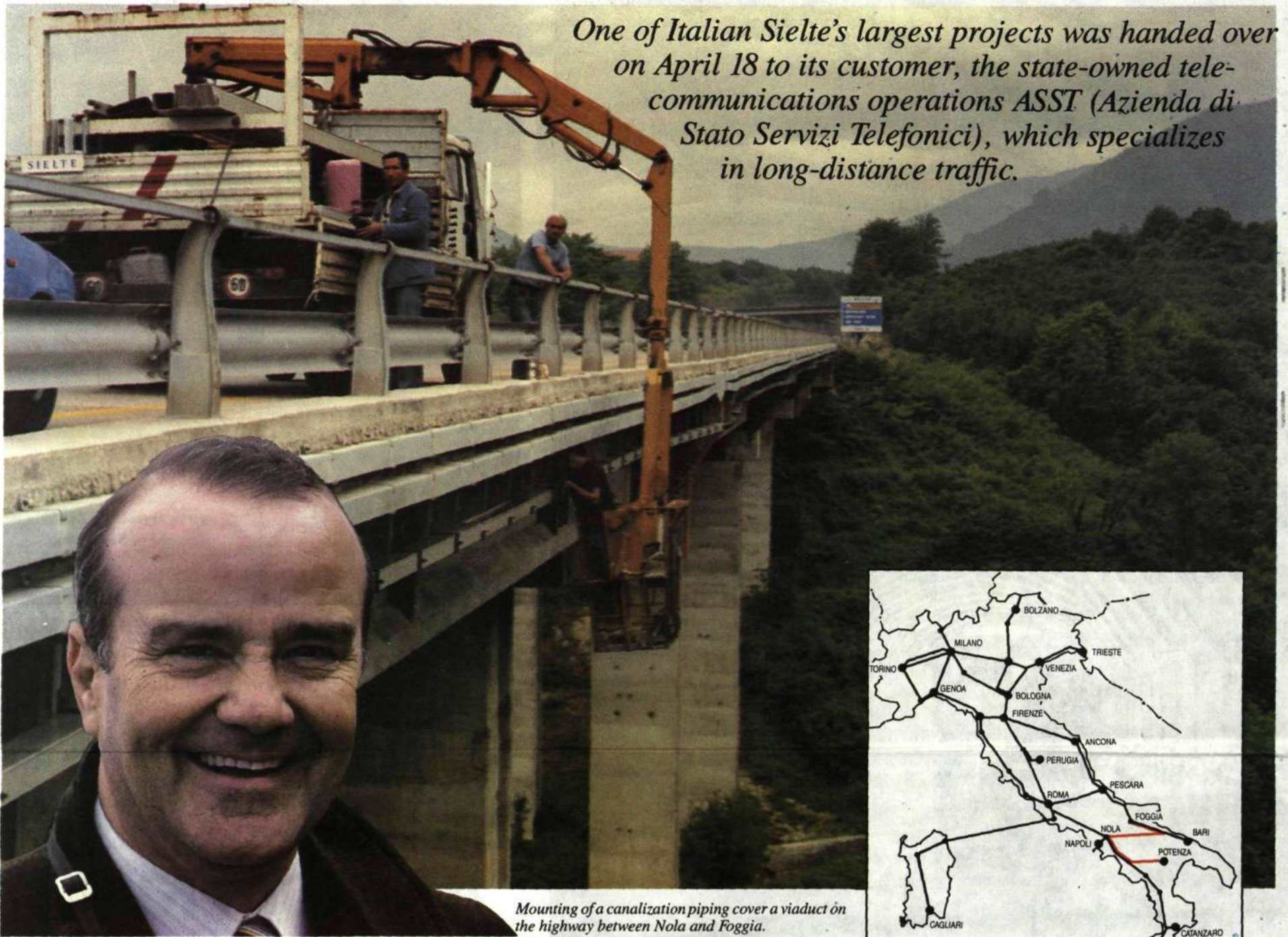
The final test has now been done in Chaville. It involves bringing together all the different aspects of the programming from Sweden, Finland, Ireland, Italy and Spain and doing a program test.

The operations were in place in Chaville in September and on January 30 the installation was handed over to CNET for testing. It was with a month's delay.

The next installation will be programmed in its entirety by MET. MET has now learned everything about program construction and can handle it by itself. A lot is happening at MET.

Inger Bengtsson

200 million Sielte project ready



One of Italian Sielte's largest projects was handed over on April 18 to its customer, the state-owned telecommunications operations ASST (Azienda di Stato Servizi Telefonici), which specializes in long-distance traffic.

Mounting of a canalization piping cover a viaduct on the highway between Nola and Foggia.

PHOTO: THORD ANDERSSON

The project, whose worth is put at some 200 million kronor, is an ultramodern fiber optic cable between the southern Italian cities of Nola and Foggia, recounted Gabriele Di Alberto, project leader, who, in addition, is head of long-distance network in the south, where he runs operations from a subsidiary office in Naples.

Nola, which lies close to Naples, has Italy's largest telephone station and is a vital link for all telecommunication traffic in the region.

"It is a turnkey project in which

we do everything from planning to installation and testing of the finished cable," says Di Alberto. The cable's capacity allows for 20,000 simultaneous calls.

"We began with the project in June 1987 and I can confirm that we are right on schedule. With the current completed project, Sielte has established itself as one of the most important suppliers of long-distance networks to ASST," says Cesare Antonucci, head of Sielte's network division.

"Throughout the entire period we

have followed the project by computer and as such we were able to control its development stage by stage. The slightest change in the timetable could instantly be updated," says Di Alberto.

The length of the cable is 212 kilometers and it holds 12 fibers. They are of single-mode type and are laid alongside the highway in six-ply multiple plastic piping. The multiple piping comes from Sielte's subsidiary in Palermo, EL.TE. Siciliana Elettrotecnica & Telecomunicazione A.p.a. Boosters are

placed at 35-kilometer intervals along the length of the cable.

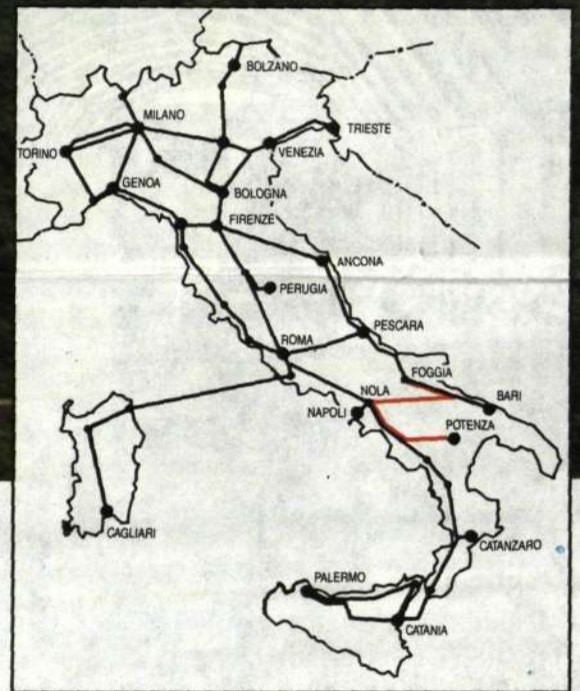
"We have worked with two work teams of 30 persons. One set out from Grottaminarda near Nola, and the other from Cerignola to Foggia. When they met, laying of the cable was completed.

The project went smoothly all along despite the inconvenience of bridge reparations over the highway.

Now, all that is left are final tests, which will be completed in June.

The next project began at the start of May, a 170-kilometer long fiber optic cable between Naples and Potenza that is expected to be completed in 18 months, Di Alberto concluded.

**Text: Thord Andersson
Photo: Gabriele di Alberto**



Plastic canalization piping is of Sielte's own construction and is manufactured by EL.TE. in Sicily.



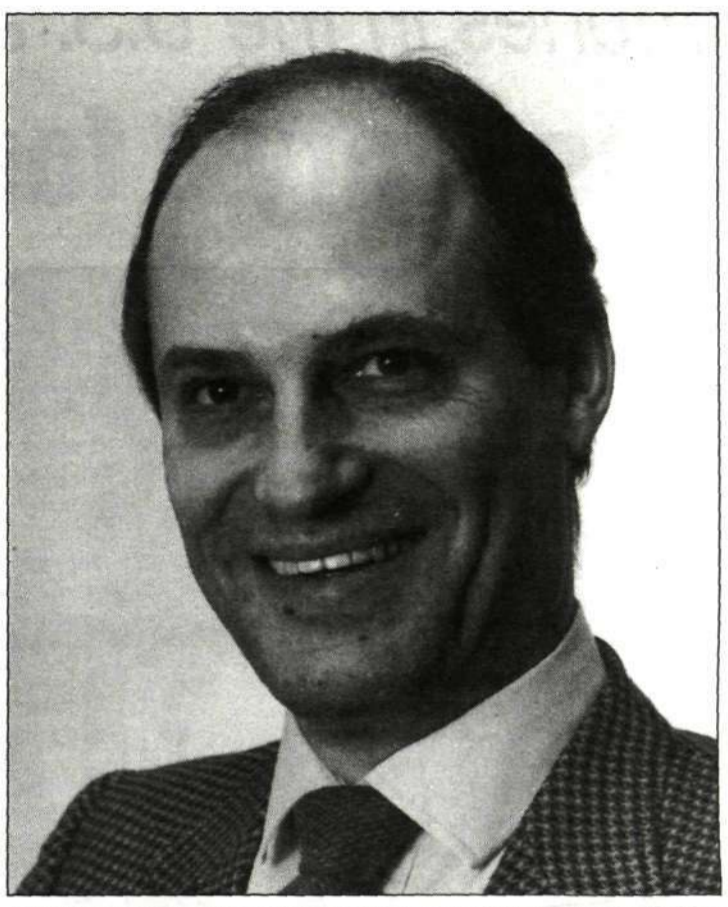
The Ericsson-blue Sielte trucks are a common sight in traffic over all of Italy.

Cable and Network, a new business area

Business Area Network Engineering and Construction and Business Area Cables are being merged into a single business area, Cables and Network (BN for short). Negotiations have been concluded and the merger will become effective as of July 1.

With its 10,000 employees and a turnover of some 6 billion kronor, Business Area Cables and Network will be the group's second largest. Heading the business area will be Lars Berg. There will be no dismantling in the operative companies. Ericsson Cables AB (ECA) and Ericsson Network Engineering AB (ENS) will be run as separate companies. From an organizational point of view, on the other hand, it is a matter of distinct stock trading changes. By having a common direction for cable and network operations, there would be better opportunities for closer cooperation which could only give a boost to the market. "I see several areas where we can reap huge practical benefits by linking cable and network operations in a common business area," Berg says. "We complement each other geographically, for example, and, as

such, together we could command a larger market share. It also facilitates common investments in a new market." Cables constitute about 50 percent of major network projects and network construction (local networks) accounts for about 50 percent of tele administration's investments, Berg notes. This highlights both the market potential and the need for the close association between the closer linking of cables and network construction. "Through the merger of the business areas Cables and Network construction, the group will become even stronger within the telenetwork field, which is completely in line with our investment on key operations with telecommunications in the center, emphasizes Björn Svedberg.



Lars Berg has been named to head the merged business area Cables and Network.

Hotline in Zurich

SAS passengers who fly to Switzerland and land in Zurich airport can lease a Hotline telephone for 25 Swiss francs per day. Passengers can obtain details about leasing the phone when they make their booking. The arrangement is applicable to all SAS flights that land in Zurich. For the airline, it is important to be able to offer its passengers good ground service and leasing of a Hotline pocket phone is a new aspect in the competition.

Two orders from Milan

Ericsson has received two orders from the subway system and the Milan Stock Exchange for an ERIPAX data communication system for a combined value of 85 million kronor. The Milan subway will use Ericsson's data communication system ERIPAX to handle all traffic and switch monitoring as well as to supply passengers with fast and up to the minute information. The subway system in Milan is currently being expanded to be ready for the 1990 world soccer championship games. Ericsson's Italian subsidiary, Fatme, has received an order from the Milan Exchange for ERIPAX. The exchange is one of Europe's largest. The ERIPAX network would introduce a distributed Online trading of shares, bonds and currency dealing throughout all of Italy. Ericsson has previously installed systems on the London, Helsinki and Stockholm exchanges.

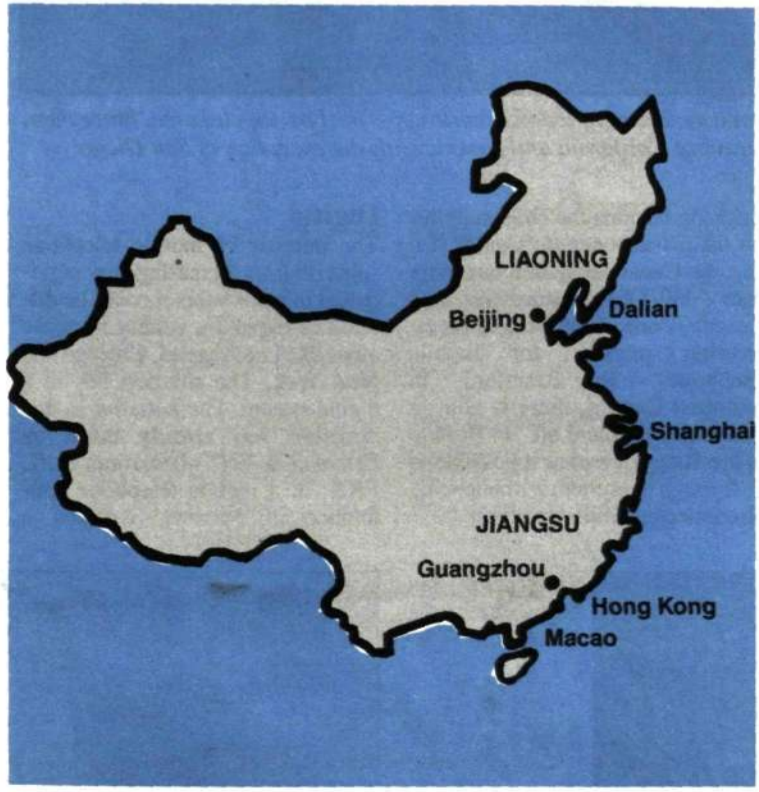
ERIPAX is designed along the lines of a so-called package system X.25, which allows for fast and effective relay of information between data users. The system has been sold to a large number of companies and organizations that have a high demand for rapid and secure data communication. Today, Ericsson has 50 percent of the market for private data network in Italy. "It is particularly exciting that Ericsson has been able to establish its place in this unusually rapid developing market for private data network. Advanced technology and profound knowledge of telecommunication, which are Ericsson's core operations, are important components in this field," says Ronny Lejdemalm, head of Ericsson Business Communications AB.

Upheaval in China a threat to Ericsson orders

The Swedish government decided overwhelmingly on June 8 to cease all aid and all export credit to China. The decision was the result of the dramatic upheavals in China during the end of May and the beginning of June. All credit applications that have not yet been approved have been stopped. This can have serious consequences for Ericsson.

In the first place, we run a risk of missing out on two large orders for a combined value of 700 million kronor, to Liaoning and Jiangsu provinces. These deliveries were to be made over several years. About one-third of the total contract value was expected to be financed with Swedish so-called U-credit, for underdeveloped countries.

Ericsson has signed an agreement in principle for these two years. The final accord and loan agreement were not completed. This means that the financing for the two orders and also the final agreement on the order itself has now been thrown into an uncertain future. While the upheavals con-



continue in China, the Swedish government will not consider the question of aid and credit. Ericsson has been operating in China for some 100 years. Since 1981 we have been engaged in a large number of projects, principally AXE stations, MD110 switching

and mobile telephones and radio systems. In 1985, we opened our own office in Beijing, Dalian, Guangzhou and Shanghai and we have a company in Hong Kong. In 1988, we had 187,000 installed AXE lines, and, there are orders now for 830,000 lines for eight of China's provinces. In the case of

MD110, there is an agreement on local manufacture. We also have a contract for 30 mobile telephone systems. The first one was installed in 1987, and since then several other systems have been installed. Some of them have the possibilities for linkage with systems installed in Hong Kong and Macao. When upheavals in Beijing culminated in the second week of June, non-Chinese personnel from Ericsson's on-site office were evacuated. Office-based staff moved temporarily to Hong Kong, and other staff members flew home to Sweden for a short spell. One week later, a limited number of them returned. Seven employees came back to Guangzhou (Canton) to reopen Ericsson's offices there and to continue with projects for an AXE installation. The Beijing office was also reopened but at the beginning it was manned by local personnel only. The office in Dalian remained open throughout, but there, too, it was with local personnel only. The continuing political upheaval makes it uncertain as to whether or when Scandinavian personnel will return to their office.

Mobile Telephones in the U.S. and Canada — A “success story” for Ericsson

Five years ago, a mobile telephone system was inaugurated in Buffalo, the first system to be delivered by Ericsson in the States. Since then, developments have moved at a rapid pace. About 60 million Americans live in the area covered by the system that is supplied by Ericsson.

In January this year, Americans made a major decision on a future digital mobile telephone system. The fact that they chose Ericsson's system represents a tremendous success for us and gives us a good base from which to face the nineties.

Mats Ljunggren works with the business and market development in the Business Area Radio Communication and has been with mobile telephony from the very start. He will never forget the 12th of April, 1982. On that day Ericsson announced officially that it had gone into the mobile telephone market in the United States.

“In May of that same year, we met with the FCC in Washington and showed our system knowhow explaining the NMT 450 and AXE, which is the heart of the system,” recounted Mats. (The FCC, the Federal Communications Commission, is a federal agency that decides on licensing for operating a telephone network in the States.)

“Of the 140 applicants for licenses in the 30 largest markets in the U.S. that were received by the FCC, a quarter indicated that they were thinking of using the Ericsson system. That caused raised eyebrows among our competitors,” Mats said.

In May 1984, the system was inaugurated in Buffalo, the first Ericsson system in the U.S.

It was a real flying start, and Buffalo has been an important reference point. Shortly thereafter, systems were in place in Chicago and Detroit and today the entire area around the Great Lakes is covered.

Los Angeles

In 1985, after a tough battle, a contract was won for a mobile telephone system in San Francisco. This was a breakthrough in California.

The following year we received orders for a system that would cover the Los Angeles area. It was an important order since Southern California accounts for 10 percent of the total mobile telephone market in the States. Since then, there have been many orders, and today we cover all of California and Nevada with the exception of San Diego.

Earlier in Florida there were



Three years ago, Ericsson won orders for a mobile telephone system to cover the Los Angeles area. Since then, a lot has happened and today we cover all of California and Nevada with the exception of San Diego.

several competing systems. These have now been updated with a single Ericsson system, which came on stream in September last year.

Canada

Today, there is an Ericsson system in 15 states and we have more than 23 percent of the total mobile telephone market in the U.S.

With the introduction of mobile telephony in Canada in July 1985,

Ericsson became the chief supplier for the private operator Cantel. Today, the Canadian system has more than 130,000 subscribers and Canada is one of the world's fastest growing markets for mobile telephones. In Brantford in southeast Canada, there is now an international “hand off” to Buffalo in the States. It makes it possible to go through the system without being disconnected while travelling.

Digital

The number of mobile telephone subscribers is increasing very rapidly and in a few years it could be difficult to expand a system in dense areas like Los Angeles, Chicago and New York. The solution lies in a digital system. The initiative in this direction was already taken by Ericsson in 1987 when Jöran Hoff, ERA, at a mobile telephone conference in Arizona, outlined a

digital system with TDMA standard. TDMA stands for time shared, as compared with FDMA, frequency shared, system.

At the end of the last year, customers, that is the American system operators themselves, were able to see how ERA's solution with a digital system functions in the most densely automobile area of all — Los Angeles. Ericsson's specially built test car with radio equipment was on the scene. In January this year, the American authorities made a decision and chose the TDMA standard. This represents a major success for Ericsson and affords us a solid base from which to penetrate the U.S. market in the nineties.

Training

In Richardson, a suburb of Dallas, Texas, there is Ericsson Systems Inc. and Radio Systems Division. This is where our American mobile telephone operations are based. Here, too, customers are trained, that is so to say system operators. To make the training as effective as possible, a “training center” was set up, which was inaugurated in March.

“We have six instructors and courses are continuously in process,” says Tomas Isaksson, who is responsible for project management and materials at the Radio division.

The training center has three classrooms, two radio labs and a switch lab. In the switch lab there is a mini switch, CMS 8900/S, which is used in the smaller mobile telephone systems.

“In the switch lab we also have an APZ/212, which is the same processor that is used in the large system. It is important for the trainees, that is the operators, to train on the system that they are going to operate”, says Tomas.

Twenty to thirty-five trainees can participate simultaneously, depending on the type of course. Besides customer training, there are also internal courses.

Gunilla Tamm



Instructor Jim Pencake in the radio lab.



Trainees, that is system operators, come from both the U.S.A. and Canada. From the left, Edward Oyawa, Canada; Mike Lefebure, California; instructor Rick Reed, Ed Gross, Pennsylvania; Randy Mattson, Indiana; Russell Bejare, Florida and Serge Toupin and Lou Kaczmarek, Canada.