

**Annual Report 1991**



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Nineteen ninety-one was in many respects a dramatic year. It was characterized by an international recession, with major changes and reduced capital expenditures by telephone operating companies in most of our principal markets. Ericsson is especially sensitive to this market trend since we are simultaneously in a phase of very heavy investments for product and system development.

Investments in public telecommunications, in particular, continue to be weak in Ericsson's main markets. Customers are deferring their orders and competitive pressure continues to increase. The market for mobile telephony is indeed expanding but, short term, this is not compensating for the softness in traditional wired public telephony where we are concerned. As a result, I expect a continuing decline in earnings, at least in the first half of 1992. An upturn may possibly occur towards the end of the year but I estimate that the level of profits for the full year will continue to be low. The action program initiated in May 1991 has been expanded to include the TRIM '92 program, whose full effect will not be felt before the end of the current year. This program includes comprehensive reductions in personnel, which have already begun.

Operations in the fourth quarter developed in line with the forecast I presented in the interim report for the nine months ended September 30, 1991. Despite the fact that a restructuring reserve of SEK 635 for action programs in 1992 and 1993 was charged against income for the period, we showed a profit for the fourth quarter. We also recorded a stronger trend of order bookings, which were 26 percent higher than during the comparable period in 1990. On the other hand, unfortunately, I must note that the stronger trend of order bookings is not the result of any general improvement in economic conditions, but is due more to large individual orders.

Our total technology costs increased substantially, by SEK 2,452 m., during the year, compared with 1990 outlays. In 1992, we will implement our strong programs in the areas of strategic, long-term product and system development. These will be carried out under careful control

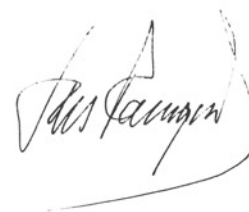
and prioritization to avoid increased development costs.

Above all, we are focusing on our core telecommunications-system businesses based on the AXE exchange and its TMOS (Telecommunications Management and Operations Support) system, and on transport network products, digital mobile telephone systems, the MD110 subscriber exchange and the Eripax data network product. Growth in the field of microwave technology is important, both for our military radar operations and for commercial applications in mobile telephony and transmission systems.

Development costs have a heavy impact on earnings under the current economic conditions. We consider, however, that these investments are essential for our future. We have noted major successes in marketing the new system products.

With more than 40 percent of the world market, Ericsson is clearly the world leader in the cellular mobile telephone system field. As a result of the focus on digital systems, we have strengthened our position for the Nineties in this expansive area. During the year, Ericsson was the only company that developed and obtained orders for all the new standardized digital mobile telephone systems for Europe, the United States and Japan. Small hand-held mobile telephones in the "Hot Line" product family have been developed within Ericsson GE Mobile Communications Inc. for use in the European and American systems.

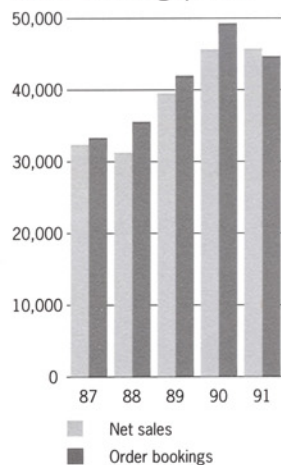
To assure our future market position, we are continuing our product and system development activities while simultaneously employing the strengthened TRIM '92 action program to focus on improving efficiency and quality throughout the organization. Forceful development programs coupled with cost-effectiveness are enabling us to maintain and strengthen our shares of the international market; when the economy turns upward, this will result in our returning to a good level of profitability.



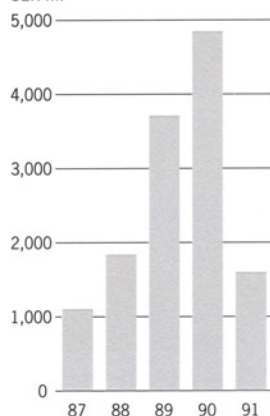
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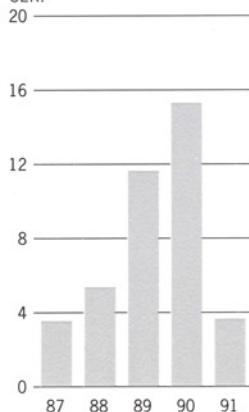
**“Development costs have a heavy impact on earnings under the current economic conditions. We consider, however, that these investments are essential for our future. We have noted major successes in marketing the new system products.”**

**Net sales/  
Order bookings, SEK m.**


Sales remained unchanged. Order bookings declined 9 percent.

**Income before taxes,  
SEK m.**


Income declined in 1991, to SEK 1,604 m., a decrease of 67 percent compared with 1990.

**Adjusted net income per  
share after actual taxes,  
SEK.**


Income per share declined, due mainly to lower income in combination with increasing relative tax rates.

Ericsson is an international leader in telecommunications, recognized for its advanced systems and products for wired and mobile communications in public and private networks.

Ericsson is also a leading supplier of electronic defense systems.

The Parent Company, Telefonaktiebolaget LM Ericsson, and Ericsson's world headquarters are located in Stockholm, Sweden. Ericsson has 70,000 employees and activities in 100 countries.

The share capital of the parent Company at December 31, 1991 was SEK 2,059,864,550 represented by 205,986,455 shares, each with a par value of SEK 10. Shareholders outside Sweden own approximately 25 percent of the shares.

Expenditures for research and development (R&D) during 1991 amounted to SEK 7.054 billion, corresponding to 15 percent of net sales. Total technical expenses in 1991, including costs of market adaptation of our products, were SEK 10.326 billion, or 23 percent of sales.

During 1991, 7 million local AXE lines were installed, an increase compared with the preceding year. The AXE system is now operational in 87 countries, with 45 million lines installed and 11 million more lines on order.

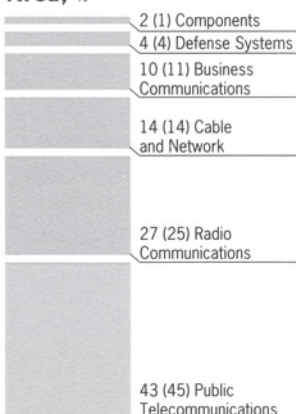
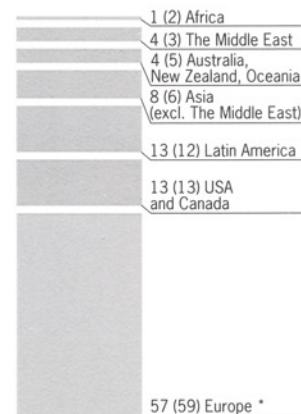
Ericsson mobile telephone systems serve 6 million subscribers in 48 countries. Ericsson remains the world leader in this field, with a 40-percent market share. During 1991, the first digital systems were delivered in Europe.

The MD110 subscriber system is currently installed with a total of 5 million lines. One million lines were ordered in 1991, a 10-percent increase compared with 1990.

**Highlights**

	1991 SEK m.	1990 SEK m.	Percent change
Net sales	45,793	45,702	0
Order bookings	44,758	49,371	-9
Order backlog at year-end	28,777	30,415	-5
Income before taxes	1,604	4,855	-67
Adjusted net income per share after taxes paid, SEK after full conversion	3.69	15.33	-76
Adjusted net income per share after paid and estimated deferred taxes on timing differences, SEK after full conversion	4.30	14.89	-71
Dividend per share, SEK	3.50 *	3.50	0

\* For 1991, proposed by the Board of Directors

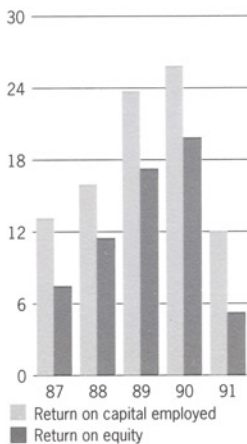
**Sales to external  
customers, by Business  
Area, %**

**Geographic  
distribution of sales, %**


\* of which Sweden 13 (12)



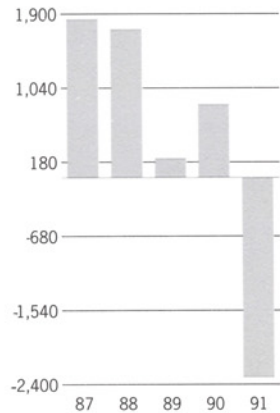
A low percentage of errors in the manufacture of integrated circuits is a critical factor in production economy. Ericsson uses proprietary control systems in order to be able to make adjustments early in each stage of manufacturing.

**Return on equity and capital employed, %**



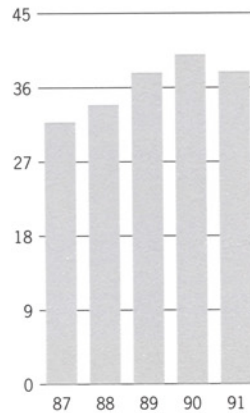
The return on equity fell from 20.4 percent in 1990 to 5.3 percent in 1991. Return on capital employed declined from 25.9 percent to 12.1 percent during the same period.

**Cash flow before external financing, SEK m.**



Cash flow was negative, amounting to SEK -2,322 m.

**Equity ratio, %**



Ericsson's equity ratio declined during 1991 from 39.3 percent to 37.9 percent.

*A dramatic year in the telecom world*

Two clearly distinguishable factors contributed actively to the great change that took place in Ericsson's principal markets during 1991. One was the deep and unexpectedly long recession. The other was the continuing restructuring in the telecommunications field that made the industry increasingly sensitive to economic conditions.

*Capital expenditures deferred*

The recession proved to be more persistent than expected and the crisis in the Middle East during the 1990-1991 autumn and winter further dampened confidence in the future. Investments in new projects declined or were deferred while follow-on orders and contracts to expand installations were postponed.

Many of Ericsson's large customers followed the same procurement pattern in 1991. As the year approached, what earlier had been strong investment programs were replaced by slimmed-down expansion plans, often at levels of spending far below the earlier ones. Orders that formerly were placed at the beginning of the year were in many cases delayed until year-end.

Deferment of projects is noticeable primarily in the public telecommunications sector. Order bookings in 1991 were weaker than a year earlier. A lower level of customer activity was also noted in Ericsson's other business areas.

*Deregulation is changing playing rules*

The high rate of capital expenditures during several years up to 1990 can be explained in part as a reaction to impending or just-implemented deregulation. Facing future competition with new players in the market, many telecommunications administrations elected to quickly build positions of strength. For new operators of telecommunications systems, it was vitally important to get under way rapidly. The various players forced each others' pace.

Over the long term, deregulation holds many attractive business opportunities for Ericsson but, viewed short term, it has affected the telecom operators' capital expenditure plans.

Instead of a situation with regulated tariffs, the telecom operators must now act in accordance with the playing rules of the market economy.

For many, this is an unfamiliar situation which has caused them to be extremely cautious.

*Concentration on telecommunications services*

Telecommunications operators are now reexamining their operations. Many, primarily the new operators, are concentrating on the key business concept: the sale of services. This favors Ericsson, since new business opportunities are opening up in areas such as network construction, formerly handled by the telecom administrations themselves. The next few years will see more orders for turnkey network projects in which price, quality and – in particular – delivery times will be decisive factors.

While the pattern differs from location to location throughout the world, deregulation is reinforcing this trend. In Europe, where the European Community Commission is a driving force, the effects will be especially comprehensive.

*Operators are increasingly international*

The United States, where the seven regional Bell companies were broken out of the AT&T system in 1984, was the country where deregulation began. This revolution in the world's largest telecommunications market created new opportunities for suppliers based outside the U.S. One consequence has also been that American telecom operators are seeking new business opportunities beyond their national borders.

The same applies to British Telecom (BT), the first European company to experience deregulation of its home market. BT, the Bell companies and AT&T are now leading a worldwide hunt for new licenses to conduct telecom operations. Many of the telecommunications companies that were formerly completely national in character are joining the hunt.

This trend is creating new opportunities. If Ericsson performs well for an operator in one country, the broad scope of the Group's international operations offer good possibilities to "accompany" the operator when it moves into other countries.

The telecommunications industry of today and tomorrow contains many new elements. Suppliers are having to adapt to the changed playing rules. This is imposing major demands



Sweden Post uses an integrated approach to communications that incorporates Mobitex and mobile radio.



The Mobitex mobile data system permits effective contact with a company's data processing system. It offers substantial improvements in efficiency and customer service – in distribution and inventory handling, in particular.

on Ericsson to be sensitive to market signals. A flexible organization that is able to quickly detect and satisfy needs in a market in process of continuous change will then be an asset.

***The installed base is becoming increasingly important***

A report describing only important market events during the year does not offer an accurate picture of Ericsson's business. Apart from the

large contracts, there are continuous operations based on what Ericsson and other suppliers call the installed base. This refers to all the follow-on business, service contracts and upgrading that follow when a company like Ericsson has delivered systems for public telecommunications, mobile telephony or business communications to a customer.

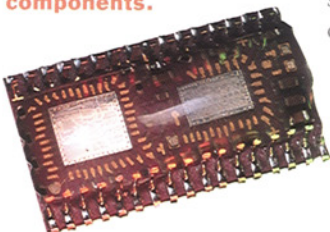
The choice of a system involves major investments to train a company's personnel in use of



**Subscribers are offered much improved speech quality and accessibility when digital mobile telephone systems are placed in service.**



**Ericsson introduced new telephones for digital technology during the year. Smaller than their predecessors, they have longer operating times, a feature made possible through the use of smaller, more advanced components.**



the system. Accordingly, the telecom operator gains by selecting the same supplier for continuing expansion of the system.

The importance of the installed base is unusually great in public telecommunications. AXE exchange equipment has been installed in more than 87 countries and additional purchases from the supplier are being made everywhere. New orders for telephone equipment are being placed continuously in such countries as France, Italy, Great Britain, Mexico and the United States.

The installed base is also important for sales of Ericsson's MD110 subscriber exchange and other products used in business communications. Earlier installations provide the foundation for a substantial and steadily increasing percentage of annual sales.

Ericsson's large installed base of analog mobile telephone systems is a highly important factor now that telecom operators throughout the world are evaluating suppliers of digital mobile telephone systems.

The fact that Ericsson has 45 million installed lines of AXE equipment, six million subscribers connected to its mobile telephone systems, and five million MD110 installed lines thus constitutes a solid platform for the company's business.

#### *The global telecommunications company*

Ericsson is a global telecommunications company, defined both in terms of Ericsson's broad international operations and that Ericsson delivers complete telecom systems based on a unique switching radio and network competence. This is reflected in the following summary of developments in some of Ericsson's markets in 1991.

#### *Ericsson's largest markets*

**Italy.** The rate of installations in both the public and private sectors continued to be high during 1991. Mobile telephone systems continued to expand as the result of a large influx of new subscribers.

**Spain.** The strong expansion of the public telecom network that took place in recent years slowed during 1991. The result was a sharp decline in orders for AXE lines, which affected

employment in Ericsson's plant in Madrid.

Expansion of the Ibercom system with the MD110 subscriber exchange continued at a rapid pace. During the autumn the stock exchanges in Madrid, Barcelona and Valencia placed orders for Eripax data networks and the NM400 operations support system. A new factory producing fiber optical cable was inaugurated in Barcelona.

**Nordic Region.** The Nordic market was characterized by restraint with respect to investments in public telecommunications networks. In October, Swedish Telecom signed a contract covering orders for transmission-network operating and monitoring systems, as well as for digital transmission systems and related monitoring equipment. In June, Swedish Telecom also signed a framework agreement calling for deliveries of additional radio base stations and AXE exchanges for the NMT 900 (Nordic Mobile Telephone) network.

In addition, this customer became the first telecom operator in the world to sign an agreement covering sales of Ericsson's cordless DCT 900 communications system. Swedish Railways concluded a framework agreement with Ericsson for delivery of optical cable up until 1994.

In Norway, deliveries of equipment to expand the national telecommunications network were begun within the framework of the agreement signed in 1990. In the private sector, Ericsson and Swedish Telecom formed a company to market Ericsson's private exchanges in the Norwegian market.

Ericsson received an order from the Finnish defense authorities in March to deliver land-based air defense radar. The contract involves the Giraffe 100 system, a new version in the successful Giraffe radar family.

**United States.** Sales of AXE exchange equipment increased during 1991. In all, 700,000 lines were delivered, most of them to two telecom operators, US West and Southwestern Bell.

Ericsson's digital technology for mobile telephony in the U.S. based on the TDMA (Time Division Multiple Access) standard was tested in many locations throughout the country. The first commercial order was signed with the Los Angeles Cellular Telephone Co. in January. Expansion of



**Signal-speed, freedom from static and smaller formats are technical advances that have been achieved through Ericsson's strong focus on product development. The miniaturization of components and enhancement of their performance are of decisive importance throughout Ericsson's area of operations. More than 10,000 persons are engaged full-time in Ericsson technical programs.**

the analog mobile telephone systems continued during the year.

Two large operators, Bell South and RAM Broadcasting, decided to jointly build a network for mobile data transmission, using Ericsson technology. Initially, the network will be set up by expanding existing Mobitex networks in the U.S.

Mexico. Ericsson's deliveries of equipment for the large public telecommunications expansion project that was approved in 1990 increased during the past year, however, at lower margins. This project also involves substantial deliveries of cable.

An order covering equipment for further ex-

pansion of the mobile telephone network operated by TELCEL, Mexico's largest company in this sector, was signed in December. The contract reinforced Ericsson's position as the dominant supplier of mobile telephone systems in the Mexican market.

Great Britain. A preliminary agreement calling for delivery of equipment to be used in a radio-based Personal Communications Network (PCN) was signed in October. This network for personal telephony will be managed jointly by two competing private operators, Mercury and Unitel.

Ericsson's dealings with British Telecom (BT)

were expanded during the year to include transmission equipment. The year also involved a breakthrough in the network construction sector with the receipt of a large contract to expand local telecom networks for BT in Edinburgh, Bristol and Manchester.

**Australia.** In the public sector, 1991 was characterized by the decision of the telecom administration, in line with decisions in most other countries, to have two different systems in its network. This meant that the AXE system faced competition from systems offered by Alcatel, which earlier had manufactured AXE on license for the Australian market. Expansion of the mobile telephone system continued at a slower rate during the year, pending the designation of a

second operating company. Ericsson sold Sea Giraffe naval surveillance radar to the naval authorities in Australia and New Zealand during 1991.

**The Netherlands.** The Netherlands continues to be one of Ericsson's most important markets, thanks to the Group's strong presence in the country. During the autumn Ericsson

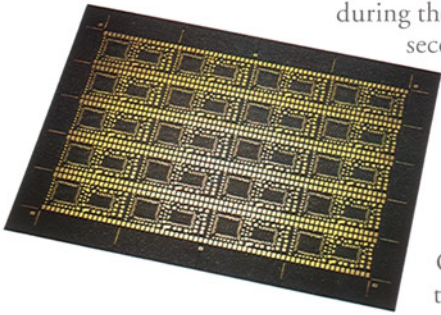
received an important order for its Network Management Application System (NMAS), used for centralized management and control of fault alarms and traffic in a telephone exchange network.

### Other markets

#### *Europe*

The market in eastern and central Europe was marked by the lack of financing to expand telecommunications facilities. However, a number of international operating companies have established joint ventures with national telecom administrations, which creates increased opportunities for suppliers.

In Estonia, Ericsson delivered exchange equipment for use in a mobile telephone network of the NMT type. In Russia, the company supplied radio equipment for a mobile telephone network in St. Petersburg. A mobile telephone system was delivered in Moscow at the end of the year. Ericsson received an order in Hungary for further expansion of the cellular mobile telephone network and – as part of an earlier general purchase agreement – for AXE exchanges with a capacity



**Printed circuits with as many as six layers of conductors, which are transferred to circuit boards with very great precision in a printing process, are being developed for the telecommunications systems of the future.**



of 100,000 lines. Separate contracts were received for a turnkey telecommunications project serving the country's rural areas.

Ericsson recorded a number of marketing successes in Germany. The German D2 telephone network – one of the country's two GSM networks – was placed in service on schedule in July and a preliminary agreement was later signed covering delivery of Mini-Link digital microwave equipment for this network. Deutsche Bundespost Telekom also signed a preliminary agreement calling for the delivery and installation of mobile telephone equipment for the wired network in eastern Germany.

The authorities in Greece placed orders for AXE exchanges with a capacity for 208,000 subscriber lines. In Switzerland, Ericsson's technology was selected for the country's GSM mobile telephone network.

### *Asia*

The market in eastern and southeastern Asia has not been affected appreciably by the current recession. Ericsson's business in this region increased during 1991.

Ericsson will deliver a digital mobile telephone network in Hong Kong. Deliveries of AXE equipment to the People's Republic of China were resumed following the granting of BITS (the Swedish Agency for International Technical and Economic Cooperation) credits by the Swedish Government. A total of 271,000 lines have been ordered by the provinces of Guandong, Xiangsu and Liaoning. During the year 100,000 lines of MD110 subscriber exchange equipment were delivered in the P.R.C.

Malaysia, Singapore and Indonesia are countries in which Ericsson received orders involving continuing expansion of mobile telephone networks. The authorities in Malaysia also ordered additional AXE equipment for the public telecom network.

In Japan, a development project in the field of mobile telephony was carried out during 1991, jointly with Nippon Telegraph and Telephone Corporation (NTT). The project was instrumental in Ericsson's later selection by the new

operator, Tokyo Digital Phone, to develop and install a digital mobile telephone system serving the Tokyo area. This represented a very important strategic breakthrough for Ericsson's mobile telephone technology in one of the world's largest and most attractive markets.

An order for a turnkey telecommunications project comprising 123,000 local exchange lines was received from the national telecommunications administration in Pakistan. Turkey was another market in which successes were recorded in 1991. Ericsson received contracts covering expansion of the local telephone network in Istanbul, and of the cable-TV network in that city and two others. An order for a long-distance fiber optical network for the national railway system was obtained in Iran.

The Gulf War in the early part of the year had a certain restraining effect on expansion of telecommunications in the Middle East.

In the Sultanate of Oman, Ericsson was entrusted with the continuing expansion of the public telecom network on a turnkey basis.

### *South America*

The market in a number of Latin American countries has been affected by the privatization of national telecom administrations. A number of international operating companies who were formerly Ericsson customers – STET (Italy), Telefonica (Spain), GTE (U.S.) and France Telecom, for example – have acquired financial interests in these administrations.

AXE exchanges were ordered in Brazil for use in the national long-distance network and for digital transmission of signals in the local network in the São Paulo region. A number of banks in Brazil placed large orders for MD110 subscriber exchanges, and frequencies for CT-3 transmission – the technology chosen by Ericsson for cordless business communications – were assigned during the year. Orders were received in Colombia for local and transit exchanges and in Venezuela contracts were obtained for AXE exchanges to be installed in Caracas and two other large cities. The stock exchange in Caracas placed an order for the Eripax data network.



**Cordless telephones in an office make it much easier to stay in telephone contact with a company's employees.**



**Ericsson's Dialog Design telephone was awarded "Die Gute Industrieform" prize at the 1991 Hannover Fair. Ericsson's standard telephone is manufactured in many different models. Good design and good function are the key factors in the products' success in the market.**

### *Focus on quality*

At the beginning of the 1990's half a billion telephone lines were connected to the "world's largest machine," the global telecommunications network. This creation is unsurpassed in terms of functionalism. Anyone, anywhere in the world, can lift a telephone receiver, dial a number and establish contact with another person anywhere else in the world. The complicated technology behind this seemingly trivial act imposes truly high demands on reliable service to end users!

Technical developments in telecommunications are occurring more rapidly than ever. The 1990's is the decade of opportunities for Ericsson, but also a period of challenges, risks and stiffening competition. High quality is one of the primary competitive weapons of the future.

Ericsson is continuing its heavy investments in research and development of telecommunications systems of the future. One out of every six employees – in development centers in many countries – is engaged in research and development. At the same time, there is a major program to improve the quality of all aspects of Ericsson's operations. For a systems supplier like Ericsson, the high quality of individual products and components is not enough. The important thing is that the entire delivered system function properly, even in the extremely complex applications for which an AXE exchange, for example, is used.

### *Quality begins with employee awareness*

Successful installations, total efforts and qualified employees do not constitute a 100-percent guarantee of high quality, but they are one of the basic requirements nonetheless. When all is said and done, a company consists of people – and people can make mistakes.

Under such circumstances, all conceivable measures have to be taken as soon as possible to correct deficiencies. At the same time, in order to prevent a recurrence, one has to discover what didn't work, and why. Ericsson is strengthening its emphasis on such fault analysis.

### *The basic strategies in our quality program*

To consolidate its position as one of the world's leading telecommunications enterprises, Ericsson

has long been pursuing five basic strategies. They provide the foundation for everything Ericsson does.

**Focus on the customer.** In both its internal and external activities, Ericsson seeks to keep the best interests of its customers foremost at all times. A supplier's responsibility does not cease with the delivery of a product or service. There must always be a readiness to support customers, and a continuous effort to satisfy Ericsson's customers to the fullest extent possible.

**Prevention.** Quality is free if it is built in from the beginning. It is the lack of quality that costs companies a great deal of money when they are forced to discard products that do not meet specifications.

**Zero defect.** A number of errors can occur in connection with the creation of new products, breakthroughs into new markets, or the introduction of new work methods. Ericsson's zero-defect strategy is based on never accepting faults. The fault ratio in a process or product must be reduced constantly.

**Farsightedness.** Quality is something that must be recaptured every day, month after month, year after year. Ericsson's quality programs are continuously being adapted to the changing demands in dynamic markets.

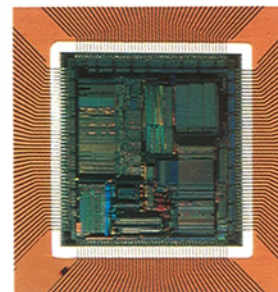
**Total participation.** All quality programs depend on each and every person within a company assuming responsibility for the quality of his or her work. This requires motivated and enthusiastic people who understand their role in a larger context of operations.

### *It pays off*

At year-end 1991, more than half of Ericsson's larger companies had been approved as meeting ISO 9001 specifications. Additional companies will be approved during 1992. ISO 9001 is a quality standard within the framework of ISO 9000, a set of quality assurance norms that supplement product and service specifications. The standards apply to all parts of the process involving products and services, from inspection of incoming materials to delivery, installation and service on the customer's premises.

The objective of the work with ISO 9000 is the same as that of Ericsson's other quality con-

The great precision required in automatic soldering of micro-components involves tolerances as low as 0.001 millimeter in connection with the simultaneous cutting and bending of the 336 soldering points on one of Ericsson's silicon chips.



control programs: to solidify the market's confidence in Ericsson as a quality company. High standards of quality reduce costs and create conditions for increasing sales and improving profitability.

*Continuous refinement of quality controls*

ISO 9001 is not an end objective, however. Instead, it constitutes a base for continuing refinement of Ericsson's quality system, with the focus on customer satisfaction and the need for constant improvements.

Total quality is the end objective of Ericsson's quality control programs. By this is meant not only quality in the narrow sense of the term but also such factors as shorter lead times and increased productivity. Above all, it is a matter of viewing quality from the customer's perspective – and improving it continuously.

Ericsson has a strong platform upon which to base its quality control program. The objective is to make Ericsson – and Ericsson quality – even stronger in the future.



**Mobidem, a new standard product developed by Ericsson, utilizes the Mobitex mobile data network for communication between a personal computer and a company's data bases. Mobidem can be used with all types of portable computers.**

### *An outstanding employer attracts involved employees*

Ericsson's employee relations policy is based on the concept that the organization should be regarded as an excellent employer, regardless of where it operates throughout the world. Good salaries and wages and interesting jobs are not adequate for a firm to be considered an outstanding employer. Respect for the individual is also required, as well as opportunities for deeper participation in operations.

An Ericsson employee should feel that professional skill, knowledge and human qualities really mean something, that his or her work input is contributing to the advancement of the business. The work climate should encourage both personal and professional development.

This is an approach that Ericsson is attempting to implement in practice. In a global enterprise in which many different cultures and ways of thinking are blended, the managements of its various units have much to teach each other.

### *An entire plant changes its spirit*

The management and employees of Ericsson Cables' plant in Hudiksvall, Sweden, have for a number of years jointly conducted a program to develop their work organization. The objective is to improve productivity, quality and delivery reliability. The employees' knowledge and resources have proved to be the most important means for achieving these goals. Accordingly, Ericsson Cables has introduced a "learning work organization."

The organization is made up of target-oriented groups that have total responsibility for meeting established production goals. Group members themselves plan their work week by week, recruit new colleagues and grant leave. It has been shown that progress is made more rapidly, and that mistakes are corrected faster, in a learning work organization of this type.

Ericsson Cables has been able to report that involvement, participation and job satisfaction yield highly favorable results. Productivity, product-quality and delivery reliability improve, while costs attributable to errors, absenteeism due to illness and employee turnover decline.

### *"Winshare" increases involvement in Lynchburg*

Ericsson GE Mobile Communications in Lynchburg, Virginia in the U.S. employs a system known as "Winshare" to increase its employees' involvement in company operations. By suggesting that a problem must be solved and how this is to be done, Winshare encourages employees to continuously improve their performance.

The employees come together in a number of "Win Teams" to describe and solve large and small problems. New suggestions, as well as solutions that have been achieved, are reported in meetings, publications and internal video productions. With the aid of more than 15,000 ideas and suggestions for solving problems, Winshare has to date yielded cost-saving measures valued at more than USD 32 million.

Awards of various sizes are made in recognition of good contributions. Management also encourages team members to take part in courses and seminars on quality.

### *Good managers increasingly important*

Ericsson is operating in an increasingly competitive market. Thus, its preparedness to deal with changes must be great; a dynamic market demands a dynamic company. This requires capable managers who can motivate all employees to give their best.

A special training program for senior managers within Ericsson provides the foundation for active and effective management. The objective is to systematize supply and development in order to assure the availability of managers and managerial candidates of the highest quality.



**An Ericsson employee should feel that craftsmanship, knowledge and human qualities really mean something, and that his or her work is contributing to the company's progress.**

The basic principle of effective management is that action speaks louder than words. A good manager must therefore, first and foremost, have three important characteristics.

Certain defined personal qualities, such as intellectual capacity, result-orientation, self-

esteem and the ability to view things in an overall perspective.

Interest in people, an ability to accept changes, and willingness to communicate.

Technical knowledge and experience, something that is exceptionally important in a company



with high-technology products and highly sophisticated customers.

Each manager should develop his or her abilities continuously through theoretical and practical advanced training. To be as “well-rounded” and experienced as possible, an Ericsson manager should be prepared to assume various managerial assignments within the organization. This strengthens the continuity of Ericsson’s operations while making it possible for gifted managers to advance.

*The enthusiasm of young people  
– the experience of elders*

The labor market is constantly imposing new demands, often those dictated by the values held by young people of the day. In order to better understand the younger generation, Ericsson has for a number of years conducted a program of Youth Group dialogue between managers and young persons.

To date, nearly 200 senior managers have met with slightly more than 1,500 young people in various parts of the world. There have been open discussions concerning the attitudes and expectations of the young and their perceptions

of Ericsson’s mission, objectives and values.

In the increasingly severe competitive climate that lies ahead, each employee must mobilize all his or her creativity and energy wholeheartedly if Ericsson is to be able to maintain its advanced position. Ericsson’s managers, who have greater experience, must therefore help young persons to adapt their expectations and desires to reality.

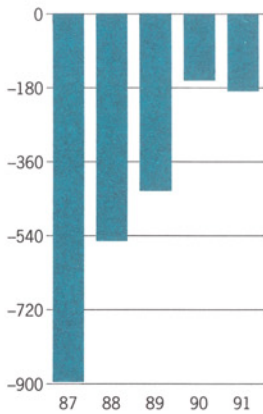
*An excellent employer despite cutbacks*

During 1991 Ericsson worked intensively to adapt its organization to changed market conditions and new production technologies. This resulted in a reduced need for personnel in many units.

Being an excellent employer in these circumstances means that cutbacks in employment are being implemented in a professional manner, characterized by sensitivity and respect for the individual. Ericsson’s objective is to be regarded as an excellent employer in this respect, as well, and as a company in which a person would want to be employed. Ericsson’s shared values – professionalism, respect and perseverance – are the foremost guidelines for the organization’s human resources policy.

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Financial Net, SEK m.



### Sales and order bookings

Ericsson's consolidated net sales in 1991 amounted to SEK 45,793 m., largely unchanged from the 1990 level, SEK 45,702 m. Sales to customers outside Sweden accounted for 87 (88) percent of total sales.

Order bookings decreased 9 percent, to SEK 44,758 m. (49,371). The order backlog at year-end was SEK 28,777 m. (30,415).

### Income

Consolidated income before taxes declined 67 percent, to SEK 1,604 m. (4,855). Of this amount, net capital gains after deduction for minority interest, accounted for SEK 229 m. (112). Income was charged with SEK 635 m. that was allocated for future restructuring costs.

Operating income after depreciation was SEK 2,291 m. (5,694). Total operating income in Ericsson's business areas for telecommunications systems – Public Telecommunications, Radio Communications, Business Communications and Components – was lower. The Cable and Network Business Area also reported weaker income, while operating income of the Defense Systems Business Area improved.

Ericsson's share in earnings of associated companies decreased to SEK 87 m. (300), primarily due to the weaker economy in the Brazilian market. General expenses rose sharply. The greater part of this increase was due to major technical commitments in the business areas for telecommunications systems. Depreciation also increased substantially as a result of the comprehensive technical development programs combined with increasingly shorter depreciation periods.

Ericsson's net financial expense rose slightly, to SEK 189 m. (163). The effect on net financial expense of a sharply negative cash flow, SEK 2,322 m., compared with a positive cash flow of SEK 854 m. in 1990, was offset by very good yields on Ericsson's liquid funds.

Minority interest in income amounted to SEK 498 m. (676). Ericsson's partly owned subsidiaries in Italy reported decreases in income, as did the companies in the Radio Communications Business Area that are jointly owned with General Electric.

*Public Telecommunications* reported a decline in sales, due mainly to a much lower level of capital spending in the Spanish market. The deferment of orders in a number of other markets was also a factor in the decrease. Gains were recorded notably in the United States, the People's Republic of China and Argentina.

*Radio Communications* increased its sales in, mainly, the mobile telephone systems sector in the U.S., Italy, Germany and Malaysia. Sales were lower in Canada, Australia and England.

Sales of the *Business Communications* Business Area decreased slightly. This was due primarily to reduced demand for telephone instruments and small subscriber exchanges, while sales of the MD110 subscriber exchange systems and data networks were higher. Sales in the German market rose sharply.

*Cable and Network* reported increased sales, attributable mainly to the Italian, Thai and Turkish markets. Sales in Sweden declined as a consequence of the weak Swedish economy.

Sales of power supply components in the *Components* Business Area were higher, as a result of the transfer of operations in Spain and Mexico from Public Telecommunications. Sales of microcircuits declined.

*Defense Systems* reported slightly lower sales than a year earlier. Most of the Business Area's sales were to the Swedish market.

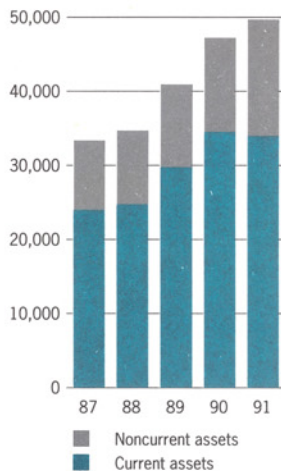
### Financing

The rate of capital turnover decreased to 0.95 (1.04), due mainly to an increase in capital expenditures for fixed assets. Accounts receivable declined to 32 (35) percent of sales. Inventories were slightly lower, amounting to 20 (20) percent of net sales. The equity ratio declined to 37.9 (39.3) percent.

Conversions of debentures equal to 257,372 shares occurred during the year. During the period between January 1 and February 15, 1992 debentures equivalent to 4,775 shares were converted. These shares carry rights to dividends in 1992.

At year-end, SEK 584 m. of the SEK 626 m. debenture loan issued to employees in the autumn of 1987 and listed for trading on the Stockholm Stock Exchange in 1990, and CHF 2.5 m. of the CHF debenture loan, had not been converted.

Assets, SEK m.



A majority of Ericsson's cash and foreign exchange management, and internal banking services are handled by Ericsson Treasury Services. Companies within this unit operate on behalf of Ericsson in the foreign exchange and money markets under a surety from the Parent Company. This surety is included in the Parent Company's contingent liabilities. The unit reported favorable results during the year, attributable mainly to interest and currency risk management.

Ericsson's short-term commercial paper program in the U.S. in the amount of USD 100 m. was activated during the year after having been dormant for several years. At the same time, new loan commitments totaling USD 100 m. were arranged during the year, to be used as an alternative to short-term commercial paper programs.

In addition, the Parent Company arranged medium- and long-term borrowing. The major financings during the year amounted to CHF 75 m., repayable in 1994, and public borrowing of USD 150 m., due in 1996, in the Euromarket. The latter loan partially replaces earlier borrowing of USD 100 m., in the open market, which was repaid during the year. The new loan is rated "A+" by Standard & Poor's and "A1" by Moody's.

In the area of export and project financing, there is a continuing tendency for banks to seek to reduce this type of commitment. As a result, Ericsson is increasingly forced to handle such financing on its own in the form of supplier credits and leasing, aided by Government guarantee institutions.

Problems in the credit insurance market restricted Ericsson's ability to avoid exposure to risk to the same degree that was possible earlier.

Operations in Ericsson's various captive insurance companies continued to develop with good profitability and comprise direct underwriting and reinsurance in a number of areas.

### Research and development

Ericsson's total expenditures for research and development, including costs related to customer orders, increased sharply in 1991 and amounted to SEK 7,054 m. (4,901), equal to 15 (11) percent of sales. Total technical develop-

ment costs, which also include costs of adapting systems and products to specific markets, similarly rose steeply, amounting to SEK 10,326 m. (7,874), equal to 23 (17) percent of sales.

### Capital expenditures

Capital expenditures for property, plant and equipment in 1991 totaled SEK 3,583 m. (3,448). Of this amount, SEK 1,637 m. (1,314) involved investments in Sweden.

### Personnel

At year-end 1991, 71,247 (70,238) persons were employed within Ericsson. Of the increase of 1,009 persons compared with the number a year earlier, units acquired and divested accounted for a net gain of 697.

Wages, salaries and other remuneration amounted to SEK 12,156 m. (10,797). Sales per employee were equal to SEK 643,000 (650,000). Supplementary information on the average number of employees and on wages, salaries and other remuneration appears in a note to the financial statements.

### Significant changes within Ericsson

In the beginning of 1991 Ericsson acquired a 50-percent interest in Orbitel Mobile Communications Ltd., an English telecommunications company.

In February 1991, Ericsson acquired 33.5 percent of the shares of Schrack, an Austrian electronics firm.

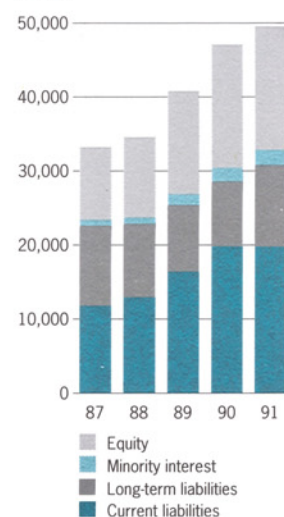
During the autumn Ericsson increased its holding in MET S.A., the French associated company, from 26 to 49.9 percent.

Together with Müsztertechnika, a Hungarian company, Ericsson formed Ericsson Technika K.F.T., in which it holds a 50-percent interest, in Budapest.

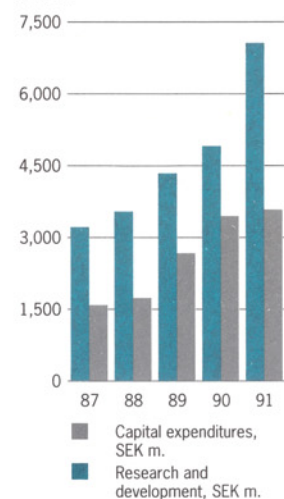
Ericsson concluded an agreement during the autumn covering the sale in 1992 of its shareholding in the Colombian cable company, Fabricas Colombianas de Materiales Electricos Facomec S.A.

An agreement was signed during the autumn covering the acquisition during the first half of 1992 of a 51-percent interest in Fuba Telekom GmbH, a German telecommunications company.

**Liabilities and Equity,**  
SEK m.

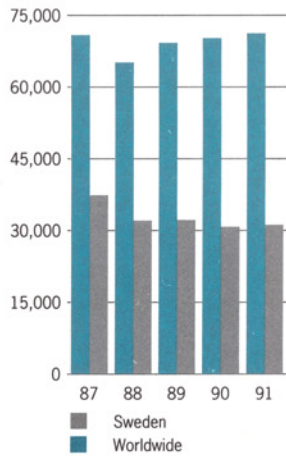


**Research and Development, Capital Expenditures,**  
SEK m.



## Board of Directors' Report

### Number of Employees



Also during the autumn, Ericsson reached an agreement to acquire, during the first six months of 1992, 40 percent of the shares in a company to be jointly owned with Ascom AG, a Swiss telecommunications company.

### Outlook

The recession is continuing in most of Ericsson's principal markets. The ongoing restructuring in the telecommunications field has caused greater sensitivity to changes in general economic conditions. As a consequence, telephone operating companies have reduced their capital expenditure plans for the short term. The first half of 1992 will be a very weak period. Accordingly, income for the full year, which is highly dependent on the above-mentioned sensitivity to economic conditions, is expected to continue to be low.

### Proposed disposition of earnings in the Parent Company

The sum of SEK 2,394,234,271, including unappropriated earnings, is available for disposition by the shareholders at the Annual General Meeting. The Board of Directors and the President propose that these earnings be distributed as follows:

<i>That</i>	a dividend of SEK 3.50 per share be paid to stockholders duly registered on the record date,	SEK 720,969,305
<i>That</i>	the remainder be retained in the business,	SEK 1,673,264,966
		SEK 2,394,234,271

Stockholm, March 1992

Björn Svedberg  
*Chairman*

Peter Wallenberg  
*Deputy Chairman*

Tom Hedelius  
*Deputy Chairman*

Sune Andersson

Carl-Erik Feinsilber

Georg Karnsund

Claes-Göran Larsson

Per Lundberg

Sven Olving

Stanley Oscarsson

Sven Ågrup

Lars Ramqvist  
*President*

## Consolidated Income Statement

Telefonaktiebolaget LM Ericsson and consolidated subsidiaries

Years ended December 31, SEK m.	1991	1990	1989
<b>Operating revenues</b>			
Net sales	45,793	45,702	39,549
Other operating revenues <i>note 1</i>	732	698	411
Share in earnings of associated companies	87	300	398
	<b>46,612</b>	<b>46,700</b>	<b>40,358</b>
<b>Operating expenses</b>			
Cost of sales	22,566	22,891	20,978
Selling, research and development, general and administrative expenses	19,892	16,543	13,529
Depreciation <i>note 2</i>	1,863	1,572	1,294
	<b>44,321</b>	<b>41,006</b>	<b>35,801</b>
<b>Operating income after depreciation</b>	<b>2,291</b>	<b>5,694</b>	<b>4,557</b>
Financial income <i>note 3</i>	1,299	1,063	779
Financial expenses <i>note 3</i>	1,488	1,226	1,210
<b>Income after financial income and expenses</b>	<b>2,102</b>	<b>5,531</b>	<b>4,126</b>
Minority interest in income before taxes	-498	-676	-411
<b>Income before taxes</b>	<b>1,604</b>	<b>4,855</b>	<b>3,715</b>
<b>Taxes</b>			
Tax expenses <i>note 4</i>	-952	-1,966	-1,546
Deferred taxes <i>note 19</i>	104	227	195
Minority interest in taxes	130	334	164
<b>Reported net income</b>	<b>886</b>	<b>3,450</b>	<b>2,528</b>
Adjusted net income per share, SEK <i>note 6</i>			
– after actual taxes paid	3.69	15.33	11.67
– after full conversion	3.69	14.66	11.06
– after actual and estimated deferred taxes	4.30	14.89	10.76
– after full conversion	4.29	14.24	10.24

**Consolidated Balance Sheet***Telefonaktiebolaget LM Ericsson and consolidated subsidiaries*

<i>December 31, SEK m.</i>	<i>1991</i>	<i>1990</i>
<b>Assets</b>		
<b>Current Assets</b>		
Cash, bank deposits and short-term cash investments <i>note 7</i>	7,812	6,767
Notes and accounts receivable – trade (less allowance for doubtful accounts, 462 at December 31, 1991 and 348 at December 31, 1990) <i>note 8</i>	13,489	15,508
Inventories (less advance and progress payments, 2,334 at December 31, 1991 and 2,014 at December 31, 1990)	9,164	9,365
Other current assets <i>note 9</i>	3,439	2,803
	<b>33,904</b>	<b>34,443</b>
<b>Deposits related to untaxed reserves</b> <i>note 10</i>	<b>82</b>	<b>69</b>
<b>Investments and other noncurrent assets</b>		
Notes and accounts receivable – trade <i>note 8</i>	1,314	377
Investments in associated companies, at equity <i>note 23</i>	1,630	932
Other investments	852	605
Other noncurrent assets <i>note 12</i>	1,366	1,683
	<b>5,162</b>	<b>3,597</b>
<b>Property, plant and equipment</b> <i>note 13</i>		
Cost	19,129	16,799
Accumulated standard depreciation	9,199	8,200
	<b>9,930</b>	<b>8,599</b>
Revaluation adjustments, net of accumulated standard depreciation	547	459
	<b>10,477</b>	<b>9,058</b>
	<b>49,625</b>	<b>47,167</b>
	<b>855</b>	<b>1,122</b>
<b>Assets pledged as collateral</b>	<b>855</b>	<b>1,122</b>
	<b>49,625</b>	<b>47,167</b>
<b>Total assets</b>	<b>49,625</b>	<b>47,167</b>

<i>December 31, SEK m.</i>	<i>1991</i>	<i>1990</i>
<b>Liabilities and stockholders' equity</b>		
<b>Current liabilities</b>		
Accounts payable – trade	3,690	3,797
Advances from customers	3,662	4,477
Accrued taxes	521	1,363
Short-term borrowings <i>note 14</i>	3,096	1,505
Current maturities of long-term debt <i>note 16</i>	285	849
Other current liabilities <i>note 15</i>	8,534	7,841
	<u>19,788</u>	<u>19,832</u>
<b>Long-term liabilities</b>		
Bond loans <i>note 16</i>	1,235	464
Convertible debentures <i>note 17</i>	595	609
Pension liabilities <i>note 18</i>	4,526	4,081
Deferred tax liabilities in timing differences <i>note 19</i>	1,679	1,783
Other long-term liabilities <i>note 16</i>	3,002	1,858
	<u>11,037</u>	<u>8,795</u>
<b>Minority interest in equity of consolidated subsidiaries</b>	<b>2,031</b>	<b>1,787</b>
<b>Stockholders' equity <i>note 20</i></b>		
Capital stock	2,060	2,057
Reserves not available for distribution	9,256	9,406
	<u>11,316</u>	<u>11,463</u>
Retained earnings and reported net income	5,453	5,290
	<u>16,769</u>	<u>16,753</u>
	<b>1,996</b>	<b>2,092</b> <i>note 22</i>
<b>Contingent liabilities</b>	<b>1,996</b>	<b>2,092</b> <i>note 22</i>
<b>Total liabilities and stockholders' equity</b>	<b>49,625</b>	<b>47,167</b>



## Consolidated Statement of Changes in Financial Position

<i>Years ended December 31, SEK m.</i>	<i>1991</i>	<i>1990</i>	<i>1989</i>
<b>Cash at January 1</b>	<b>6,767</b>	<b>5,120</b>	<b>3,780</b>
<b>Cash provided from operations</b>			
Reported net income	886	3,450	2,528
Minority interest in net income	368	342	247
Depreciation	1,863	1,572	1,294
Losses on sale of property, plant and equipment	39	33	66
Increase (-) / decrease in bank deposits related to untaxed reserves	-13	3	-15
Decrease in deferred tax liability on timing differences	-104	-227	-195
	<b>3,039</b>	<b>5,173</b>	<b>3,925</b>
<b>Translation adjustments not affecting income statement</b>	<b>-348</b>	<b>-212</b>	<b>82</b>
<b>Sale of property, plant and equipment</b>	<b>227</b>	<b>419</b>	<b>261</b>
	<b>-121</b>	<b>207</b>	<b>343</b>
<b>Changes in working capital (excl. cash)</b>			
Notes and accounts receivable – trade	2,019	-3,266	-2,083
Inventories	201	282	-1,476
Other current assets	-636	-197	-119
Current liabilities, noninterest-bearing	-1,071	2,838	2,987
	<b>513</b>	<b>-343</b>	<b>-691</b>
<b>Changes in other assets</b>			
Additions to property, plant and equipment	-3,583	-3,448	-2,672
Translation adjustments in property, plant and equipment	148	142	-46
Investments, net	-945	-395	-12
Other noncurrent assets	-620	191	-89
	<b>-5,000</b>	<b>-3,510</b>	<b>-2,819</b>
<b>Dividends paid</b>	<b>-753</b>	<b>-673</b>	<b>-529</b>
<b>Cash flow</b>	<b>-2,322</b>	<b>854</b>	<b>229</b>
<b>Cash provided from financial transactions</b>			
Changes in short-term liabilities	1,027	583	476
Changes in long-term liabilities	2,346	14	-742
Conversion of debentures	15	48	899
Proceeds from unclaimed stock dividend shares	3	-	-
Additional capital contributed by minority	-24	148	478
	<b>3,367</b>	<b>793</b>	<b>1,111</b>
<b>Cash at December 31</b>	<b>7,812</b>	<b>6,767</b>	<b>5,120</b>

## Parent Company Income Statement

Telefonaktiebolaget LM Ericsson

Years ended December 31, SEK m.	1991	1990	1989
<b>Operating revenues</b>			
Net sales	12,301	10,744	11,041
Other operating revenues <i>note 1</i>	1,323	1,229	687
	<u>13,624</u>	<u>11,973</u>	<u>11,728</u>
<b>Operating expenses</b>			
Cost of sales	5,518	4,860	5,158
Selling, research and development, general and administrative expenses	7,544	5,979	5,055
Depreciation <i>note 2</i>	366	333	235
	<u>13,428</u>	<u>11,172</u>	<u>10,448</u>
<b>Operating income after depreciation</b>	196	801	1,280
Financial income <i>note 3</i>	930	1,522	1,154
Financial expenses <i>note 3</i>	438	654	819
<b>Income after financial income and expenses</b>	688	1,669	1,615
Appropriations to (-) / from untaxed reserves			
Changes in depreciation in excess of standard depreciation <i>note 2</i>	-141	-105	-234
Changes in other untaxed reserves <i>note 19</i>	547	279	-748
	<u>406</u>	<u>174</u>	<u>-982</u>
Contributions from / to (-) subsidiary companies	-122	-566	354
<b>Income before taxes</b>	972	1,277	987
Income taxes	-142	-115	-109
<b>Reported net income</b>	<u>830</u>	<u>1,162</u>	<u>878</u>

**Parent Company Balance Sheet***Telefonaktiebolaget LM Ericsson*

<i>December 31, SEK m.</i>	<i>1991</i>	<i>1990</i>
<b>Assets</b>		
<b>Current assets</b>		
Cash, bank deposits and short-term cash investments <i>note 7</i>	162	79
Notes and accounts receivable from subsidiary companies <i>note 8</i>	3,827	4,403
Notes and accounts receivable – trade (less allowance for doubtful accounts, 232 at December 31, 1991 and 172 at December 31, 1990) <i>note 8</i>	1,589	1,512
Inventories (less advance and progress payments, 26 at December 31, 1991 and 67 at December 31, 1990)	1,965	2,244
Other current assets <i>note 9</i>	863	760
	<b>8,406</b>	<b>8,998</b>
<b>Deposits related to untaxed reserves</b> <i>note 10</i>	–	5
<b>Investments and other noncurrent assets</b>		
Notes and accounts receivable – trade <i>note 8</i>	175	201
Other accounts receivable from subsidiary companies	845	845
Investments <i>note 11</i>		
Subsidiary companies	7,343	6,604
Associated companies	426	251
Other investments	72	72
Other noncurrent assets	219	315
	<b>9,080</b>	<b>8,288</b>
<b>Property, plant and equipment</b> <i>note 13</i>		
Cost	4,550	3,824
Accumulated standard depreciation	2,017	1,787
	<b>2,533</b>	<b>2,037</b>
Revaluation adjustments, net of accumulated standard depreciation	218	232
	<b>2,751</b>	<b>2,269</b>
	<i>1991</i>	<i>1990</i>
<b>Assets pledged as collateral</b>	<b>307</b>	<b>270</b> <i>note 21</i>
<b>Total assets</b>	<b>20,237</b>	<b>19,560</b>

<i>December 31, SEK m.</i>	<i>1991</i>	<i>1990</i>
<b>Liabilities and stockholders' equity</b>		
<b>Current liabilities</b>		
Accounts payable – trade	839	834
Advances from customers	139	192
Tax liability	4	53
Short-term borrowings	289	39
Current maturities of long-term debt <i>note 16</i>	110	689
Accounts payable to subsidiary companies	708	1,001
Other current liabilities <i>note 15</i>	1,547	1,515
	<u>3,636</u>	<u>4,323</u>
<b>Long-term liabilities</b>		
Bond loans <i>note 16</i>	1,235	464
Convertible debentures <i>note 17</i>	595	609
Pension liabilities <i>note 18</i>	1,817	1,635
Payables to subsidiary companies	1,334	1,680
Other long-term liabilities <i>note 16</i>	1,466	417
	<u>6,447</u>	<u>4,805</u>
<b>Untaxed reserves</b>		
Accumulated depreciation in excess of standard depreciation <i>note 13</i>	863	722
Other untaxed reserves <i>note 19</i>	1,708	2,255
	<u>2,571</u>	<u>2,977</u>
<b>Stockholders' equity <i>note 20</i></b>		
Capital stock	2,060	2,057
Reserves not available for distribution	3,129	3,114
	<u>5,189</u>	<u>5,171</u>
General reserve	100	100
Retained earnings	1,464	1,022
Net income	830	1,162
	<u>7,583</u>	<u>7,455</u>
	<u>4,236</u>	<u>2,873</u>
<b>Contingent liabilities</b>	<i>1991</i>	<i>1990</i>
	<i>4,236</i>	<i>2,873</i> <i>note 22</i>
<b>Total liabilities and stockholders' equity</b>	<b>20,237</b>	<b>19,560</b>

## Parent Company Statement of Changes in Financial Position

<i>Years ended December 31, SEK m.</i>	<i>1991</i>	<i>1990</i>	<i>1989</i>
<b>Cash at January 1</b>	79	380	2,107
<b>Cash provided from operations</b>			
Net income	830	1,162	878
Depreciation	366	333	235
Gains (-) / losses on sale of property, plant and equipment	27	10	-94
Increase (-) / decrease in bank deposits related to untaxed reserves	5	35	-25
Appropriations to untaxed reserves and Parent Company contributions to subsidiary companies	-284	392	628
	944	1,932	1,622
<b>Sale of property, plant and equipment</b>	39	23	26
<b>Changes in working capital (excl. cash)</b>			
Notes and accounts receivable – trade	499	159	-3,018
Inventories	279	87	-435
Other current assets	-103	296	144
Current liabilities, noninterest-bearing	-358	-1,288	1,205
	317	-746	-2,104
<b>Changes in other assets</b>			
Additions to property, plant and equipment	-914	-585	-708
Investments, net	-914	-183	-1,420
Other noncurrent assets	122	202	229
	-1,706	-566	-1,899
<b>Contributions from/to (-) subsidiary companies</b>	-122	-566	354
<b>Dividends paid</b>	-720	-574	-405
<b>Cash flow</b>	-1,248	-497	-2,406*
<b>Cash provided from financial transactions</b>			
Changes in short-term liabilities	-329	6	289
Changes in long-term liabilities	1,642	142	-509
Conversion of debentures	15	48	899
Proceeds from unclaimed stock dividend shares	3	-	-
	1,331	196	679
<b>Cash at December 31</b>	162	79	380

\* Of this amount, SEK -2,478 m. represents a transfer of Parent Company holdings of securities to Ericsson Treasury Services AB, a subsidiary.

*In millions of Swedish kronor (except per share amounts)  
Years ended December 31*

### General

In the Annual Report, the Company has given due consideration to the recommendations given in the "Declaration and Decisions on International Investment and Multinational Enterprises" of the Organization for Economic Cooperation and Development (OECD). The Company also follows the guidelines relative to multinational companies and the labor market developed by the International Labor Organization (ILO), the United Nations organization dealing with labor matters.

Generally, the same prices established for sales to external customers are applied in intercompany sales, except that consideration is given to the absence of certain costs in intercompany transactions.

Because Ericsson has operations in many countries throughout the world and currency transactions are made in many different currencies, great importance is attached to various measures designed to reduce currency exposure.

In principle, Ericsson is subject to two different types of currency exposure:

*Transaction exposure:* Exposure related to payment flows denominated in a currency other than the Company's own.

*Translation exposure:* Exposure related to monetary net assets in a foreign subsidiary (often termed balance sheet exposure).

Subsidiaries reduce transaction exposure through forward exchange contracts, mainly those issued by Ericsson's internal bank, covering anticipated flows in foreign currency. The internal bank then assumes responsibility for maintaining Ericsson's net currency exposure within the frameworks established in the form of a currency risk policy. Translation exposure arises when monetary net assets of subsidiaries are valued at year-end exchange rates. Translation exposure in independent consolidated companies consists in principle of shareholders' equity in these companies, i.e. Ericsson's net investment. This exposure is reduced through borrowing and currency exchange contracts in amounts governed by a policy established by Corporate Management. Translation exposure in integrated consolidated companies is reduced mainly through continuous monitoring with the objective of balancing an individual company's shareholders' equity and its investment in fixed assets.

See also Accounting Policies, Point (d).

### Accounting Policies

The consolidated financial statements of Telefonaktiebolaget LM Ericsson and its subsidiaries (the "Company") have been prepared in accordance with accounting principles generally accepted in Sweden. These accounting principles differ in certain important respects from accounting principles generally accepted in the United States. For a description of the differences and their approximate related effect on consolidated income and stockholders' equity, see Note 24.

#### (a) Principles of Consolidation

The consolidated financial statements include the

accounts of the Parent Company and all of its subsidiary companies. All significant transactions between these companies have been eliminated.

The consolidated financial statements have been prepared in accordance with the purchase method, whereby consolidated stockholders' equity includes equity in subsidiary and associated companies arising following their acquisition only.

Material investments in associated companies in which the Company's voting stock interest is at least 20 percent but not over 50 percent are accounted for according to the equity method (see Note 23). Minor investments in associated companies and all other investments are accounted for as Other investments, and carried at the lower of cost or net realizable value.

Material investments in associated companies are shown at equity after adjustments for unrealized intercompany profits and unamortized goodwill or negative goodwill (see (b) below). In determining the equity of associated companies, untaxed reserves are added back to equity after provision for deferred taxes.

#### (b) Goodwill and Negative Goodwill

Goodwill (excess of cost over net assets of acquired companies) and negative goodwill (excess of net assets acquired over cost) are normally amortized at a rate of 10 percent per year.

#### (c) Sales Recognition

Sales are recorded upon shipment of products and represent amounts realized, excluding value added tax, and are net of goods returned, trade discounts and allowances.

Income from large long-term contracts is accounted for in accordance with the percentage-of-completion method. If costs required to complete such contracts are estimated to exceed remaining revenues, a provision is made for estimated losses.

#### (d) Translation of Amounts in Foreign Currency

The Company applies the Statement of Financial Accounting Standards No. 52 issued by the Financial Accounting Standards Board of the United States (SFAS 52) for the translation to Swedish kronor of the financial statements of foreign subsidiaries and associated companies.

For many subsidiary and associated companies, generally those with manufacturing operations, the currency in which those companies primarily generate and expend cash is their functional (business) currency, in accordance with SFAS 52. Their balance sheet items (assets and liabilities) are translated to Swedish kronor at year-end exchange rates and their income statement items are translated at average rates of exchange during the year. The resulting translation adjustments are accumulated under stockholders' equity. When a company accounted for in accordance with these principles is sold, the accumulated translation adjustments are included in income.

Companies whose accounts are translated in accordance with this method are designated independent companies.

The financial statements of subsidiary and asso-

ciated companies, generally without manufacturing operations, having such close relations with the Swedish operations that their functional currency is considered to be the Swedish krona, have been included in the consolidated financial statements to give approximately the same results as if their activities had been carried out in a Swedish enterprise. The adjustments arising from the translation of these subsidiary and associated companies' financial statements are included in the consolidated income statement.

Companies whose accounts are translated in accordance with this method are designated integrated companies.

Effective January 1, 1986, the financial statements of all subsidiary and associated companies operating in countries with highly inflationary economies, and whose functional currency is considered to be the U.S. dollar, have been translated in two steps. In the first, the translation to dollars has been made to give approximately the same results in dollars as if the activities of the companies had been carried out in an American enterprise. The adjustments resulting from this translation are included in the consolidated income statement.

In the second step, from U.S. dollars to Swedish kronor, balance sheet items are translated at year-end exchange rates, and income statement items at the average rates of exchange during the year. The resulting translation adjustments are accumulated under Stockholders' Equity.

Gains and losses on foreign exchange include both translation adjustments and gains and losses on foreign currency transactions. These are divided into operational and financial gains and losses on foreign exchange.

Net operational gains and losses on foreign exchange, mainly related to accounts receivable and payable are included in Cost of sales.

Financial gains and losses on foreign exchange are mainly related to liquid funds and loans. Gains and losses attributable to liquid funds for subsidiaries operating in countries with highly inflationary economies, and whose functional currency is considered to be the U.S. dollar, are included in financial income whereas gains and losses attributable to loans are included in financial expenses.

Financial gains and losses on foreign exchange for other companies are included net in financial expenses (see Note 4).

In the consolidated financial statements, receivables and liabilities in foreign currencies have been translated at year-end exchange rates.

Unrealized exchange gains on long long-term receivables and liabilities in foreign currency in Swedish companies are transferred to a Currency adjustment reserve and shown as an appropriation. Effective in 1990, the transfer has been made in accordance with the recommendation of the Swedish Accounting Standards Board.

The appropriation for 1989 was calculated based on valuation of receivables in accordance with the lowest-value principle, and of liabilities in accordance with the highest-value principle.

Effective in 1990, the same principles have been applied in both the Parent Company and consoli-

dated accounts. In 1989, the Parent Company's receivables in foreign currency were valued in accordance with the lowest-value principle and its liabilities in foreign currency were valued in accordance with the highest-value principle. If this method had also been applied in 1990, income before appropriations and taxes for that year would have been SEK 131 m. lower and income before taxes would have declined by SEK 124 m.

The rates of forward exchange contracts are used for valuing receivables and liabilities covered by such contracts.

The internal bank's forward exchange contracts pertaining to consolidated net currency exposure, have been valued at market.

Consolidated nonrestricted stockholders' equity has from 1989 been translated at year-end exchange rates.

#### *(e) Research and Development Costs*

Research and development costs are expensed as incurred. Costs based on orders from customers are included in Cost of sales.

#### *(f) Inventories*

Inventories are stated at standard cost, which approximates cost on a first-in, first-out (FIFO) basis. Cost includes materials, labor and manufacturing overhead. Write-downs have been made in cases where the sales value of goods, after deduction of estimated selling costs, is lower than historical cost.

Intercompany profits that were not realized through the sale of goods to customers have been eliminated, as has also been done in the case of associated companies.

#### *(g) Timing Differences and Deferred Taxes*

Appropriations and Untaxed reserves are not reported in the consolidated accounts. Effective in 1990, with adjustments for 1989, these items have been restated by applying the current tax rate applicable in each country. The deferred tax calculated in this connection has been shown in the consolidated income statement as Deferred taxes. The capital portion is stated in the income statement as part of net income for the year, and in the balance sheet as restricted stockholders' equity. The accumulated deferred tax liability is adjusted each year by applying the current tax rate in each country and is stated in the consolidated balance sheet as Deferred tax in timing differences.

An adjustment of deferred tax liability attributable to changes in tax rates is shown in the consolidated income statement as a part of the tax charge.

The adjustment is treated as an extraordinary tax item and is eliminated in calculating profit per share after tax charges and estimated deferred taxes on timing differences.

#### *(h) Leases*

Leased property is normally expensed over the term of the lease.

Statement No. 13 of the Financial Accounting Standards Board (SFAS 13) is applied in accounting for certain contracts in the consolidated accounts.

Accordingly, certain leasing contracts are expens-

ed and reported as an acquisition of an asset and as Other short-term liability and Other long-term liability. See also Note 5, Leasing.

**(i) Property, Plant and Equipment**

Property, plant and equipment are stated at cost except for revaluation adjustments. The revaluation adjustments are allowed under certain circumstances in accordance with accounting principles generally accepted in Sweden and in certain other countries.

**(j) Depreciation**

The annual depreciation is reported as standard depreciation, generally on the straight-line method, using estimated useful lives of, in general, 40 years on buildings, 25 years on telephone plants, 20 years on land improvements, 5 to 10 years on machinery and equipment, and up to 5 years on rental equipment, which is reported as an operating expense. The Company normally claims the maximum depreciation deduction allowable for tax purposes.

The differences between depreciation deductions for tax purposes and standard depreciation, depreciation in excess of standard depreciation, is treated in the consolidated accounts in accordance with point (g) above. In the Parent Company, depreciation in excess of standard depreciation is reported as Appropriations.

During 1989 certain telephone exchange equipment was leased to customers, which is reported in the consolidated accounts in accordance with SFAS 13. However, depreciation of these assets for tax purposes is shown as Depreciation in excess of standard depreciation. The assets are included in Machinery and equipment in the Parent Company accounts. See also paragraph (h) under Leases, above.

Depreciation in excess of standard depreciation also includes the share of excess depreciation attributable to partnerships partly owned by Ericsson.

**(k) Adjusted Net Income per Share**

Adjusted net income per share is based upon the average weighted number of common shares outstanding during each year as well as the average weighted number of common shares including the effect of the conversion of all convertible debentures.

The calculation of adjusted net income per share is based on income before taxes with deductions for either:

- (1) Actual taxes paid as reported, or
- (2) Actual taxes paid as reported and deferred taxes determined as a tax calculated on timing differences, adjusted for minority interests.

The effect of these methods is that two amounts of adjusted net income per share are shown before and after conversion, respectively:

- (1) Adjusted net income per share after actual taxes paid.
- (2) Adjusted net income per share after actual and estimated deferred taxes.

For reference to net income per share in accordance with accounting principles generally accepted in the United States, see Note 24.

**Note 1 Other Operating Revenues**

<i>Consolidated</i>	<i>1991</i>	<i>1990</i>	<i>1989</i>
Losses on sale of property, plant and equipment	-39	-33	-66
Gains on sale of investments and operations	399	227	69
Commissions, license fees and other operating revenues	372	504	408
	<u>732</u>	<u>698</u>	<u>411</u>
<i>Parent Company</i>	<i>1991</i>	<i>1990</i>	<i>1989</i>
Losses on sale of property, plant and equipment	-27	-10	-11
Gains/loss (-) on sale of investments	-21	151	105
Commissions, license fees and other operating revenues	1,371	1,088	593
	<u>1,323</u>	<u>1,229</u>	<u>687</u>

**Note 2 Depreciation**

<i>Consolidated</i>	<i>1991</i>	<i>1990</i>	<i>1989</i>
<i>Total depreciation</i>			
Land improvements	6	2	3
Buildings	185	66	154
Telephone plants	53	43	43
Machinery and equipment	1,798	1,693	1,396
Revaluation adjustments	25	25	21
	<u>2,067</u>	<u>1,829</u>	<u>1,617</u>
Less - Depreciation in excess of standard depreciation related to assets sold	63	106	25
Total depreciation	<u>2,004</u>	<u>1,723</u>	<u>1,592</u>
<i>Standard depreciation</i>			
Land improvements	3	3	2
Buildings	98	71	85
Telephone plants	53	43	43
Machinery and equipment	1,684	1,430	1,143
Revaluation adjustments	25	25	21
Total standard depreciation	<u>1,863</u>	<u>1,572</u>	<u>1,294</u>
Depreciation in excess of standard depreciation	-141	-151	-298
<i>Parent Company</i>	<i>1991</i>	<i>1990</i>	<i>1989</i>
<i>Total depreciation</i>			
Land improvements	3	-	-
Buildings	63	20	6
Machinery and equipment	446	413	458
Revaluation adjustments	14	14	14
	<u>526</u>	<u>447</u>	<u>478</u>
Less - Depreciation in excess of standard depreciation related to assets sold	19	9	9
Total depreciation	<u>507</u>	<u>438</u>	<u>469</u>
<i>Standard depreciation</i>			
Land improvements	1	1	1
Buildings	16	15	15
Machinery and equipment	335	303	205



<i>Parent Company</i>	1991	1990	1989
Revaluation adjustments	14	14	14
Total standard depreciation	366	333	235
Depreciation in excess of standard depreciation	-141	-105	-234

### Note 3 Financial Income and Expenses

<i>Consolidated</i>	1991	1990	1989
<i>Financial income</i>			
Interest income	1,299	1,041	776
Dividends	-	22	3
Total financial income	1,299	1,063	779
<i>Financial expenses</i>			
Interest expenses	1,493	1,240	1,100
Gains and losses on foreign exchange, net	-34	-16	71
Other financial expenses	29	2	39
Total financial expenses	1,488	1,226	1,210
Financial net	-189	-163	-431

<i>Parent Company</i>	1991	1990	1989
<i>Financial income</i>			
Interest income	339	713	662
Dividends from subsidiaries	529	763	448
Dividends from others	62	46	44
Total financial income	930	1,522	1,154
<i>Financial expenses</i>			
Interest expenses	548	776	844
Gains and losses on foreign exchange, net	-119	-129	-47
Other financial expenses	9	7	22
Total financial expenses	438	654	819
Financial net	492	868	335

Swedish companies' interest on the pension liabilities is included in the interest expenses shown above.

To achieve a relevant accounting of interest income and interest expenses for Latin American subsidiaries operating in countries with highly inflationary economies, interest income has been charged with foreign exchange adjustments attributable to financial assets, while financial expenses have been credited with foreign exchange adjustments attributable to financial liabilities.

### Note 4 Tax Expenses

As explained under Notes to the Financial Statements (g), the Company, effective in 1990, reports deferred taxes in timing differences (see Note 19). Under tax regulations in Sweden, companies are allowed to claim tax deductions by developing appropriations to certain reserves, and the provision for income taxes is determined by taking such tax relief into account.

The Swedish national tax rate is 30 percent effective in 1991.

Ericsson, like many other large Swedish companies, has been the object of a scheduled examin-

ation of the tax authorities. This audit was completed during 1991.

Reservations made earlier are deemed adequate to cover any additional tax liability.

Certain subsidiaries, mainly based in the United States and Argentina, had at December 31, 1991 tax loss carry-forwards, that can be utilized to reduce future taxable income, amounting to approximately SEK 840 m. Such loss carry-forwards expire as follows (in millions):

<i>Year of expiration</i>	<i>Amount</i>
1992	24
1993	55
1994	29
1995	33
1996	55
1997	222
1998	9
1999	77
2000	94
2001 or later	242
	840

In addition, the Parent Company had at December 31, 1991 unutilized tax deduction benefits related to its dividend payments, which can be applied during the period through the year 2011. In accordance with current Swedish law, these amounts are deductible in calculating income taxes, under the condition that a certain dividend level is achieved. If the proposed dividend for 1991 is applied to the unutilized tax deduction benefits for own dividend payments at December 31, 1991, an amount of SEK 1,851 m. could be deducted when calculating income tax during the period through the year 2011. The Parent Company also has unutilized tax deduction benefits of SEK 169 m. related to capital losses that can be utilized in determining tax payments through 1994.

### Note 5 Leasing Leasing obligations

At December 31, 1991, future payment obligations for Leases were distributed as follows:

	<i>Leases</i>
1992	830
1993	707
1994	450
1995	344
1996	230
1997 and later	532
	3,093

Expenses for the year for leasing of assets amounted to SEK 937 m. (SEK 762 m. in 1990 and SEK 652 m. in 1989).

### Leasing income

Certain consolidated companies lease equipment, mainly telephone exchanges, to customers. These leasing contracts vary in length from 6 months and 14 years.

Net book value of assets reported as Operating leases, after accumulated standard depreciation, amounted to SEK 82 m. at December 31, 1991 (December 31, 1990: SEK 73 m.).

Net investment in Sales-type Leases and Financial Leases amounted to SEK 350 m. at December 31, 1991 (December 31, 1990: SEK 319 m.).

Anticipated future payments for leased equipment are distributed as follows:

	<i>Sales-type and Financial Leases</i>	<i>Operating Leases</i>
1992	97	56
1993	92	40
1994	78	28
1995	25	24
1996	156	18
1997 and later	73	19
	521	185
Less: Interest	-171	
Net investment	350	

### Note 6 Adjusted Net Income per Share

<i>Consolidated</i>	<i>1991</i>	<i>1990</i>	<i>1989</i>
Income before taxes	1,604	4,855	3,715
Actual income taxes paid as reported	-952	-1,966	-1,546
Minority interest in taxes paid	+108	+260	+166
Adjusted net income (after actual taxes paid)	760	3,149	2,335
Per share	3.69	15.33	11.67
Adjusted net income (after actual taxes paid)	760	3,149	2,335
Interest expenses on convertible debentures net of income taxes	+46	+33	+44
Foreign exchange differences on convertible debentures, net	-1	+1	+25
Adjusted net income (after actual taxes paid) after full conversion	805	3,183	2,404
Per share	3.69*	14.66	11.06
Adjusted net income (after actual taxes paid)	760	3,149	2,335
Estimated deferred taxes in timing differences	104	227	195
Adjustment of deferred tax liabilities	-	-391	-374
Minority interest in estimated deferred taxes	+22	+74	-2
Adjusted net income (after actual and estimated deferred taxes)	886	3,059	2,154
Per share	4.30	14.89	10.76
Adjusted net income (after actual and estimated deferred taxes)	886	3,059	2,154
Interest expenses on convertible debentures net of income taxes	+46	+33	+44
Foreign exchange differences on convertible debentures, net	-1	+1	+25
Adjusted net income (after actual and estimated deferred taxes) after full conversion	931	3,093	2,223
Per share	4.29	14.24	10.24

\* As adjusted net income per share after full conversion is higher than adjusted net income before full conversion, the lower amount is shown.

Weighted average number of shares outstanding:

1991 - 205,874,050

1990 - 205,372,418

1989 - 200,135,045

Weighted average number of shares outstanding after full conversion:

1991 - 217,171,902

1990 - 217,171,902

1989 - 217,172,365

### Note 7 Cash, Bank Deposits and Short-Term Cash Investments

	<i>Consolidated</i>		<i>Parent Company</i>	
	<i>1991</i>	<i>1990</i>	<i>1991</i>	<i>1990</i>
Cash and bank deposits	3,398	3,135	162	79
Short-term cash investments	4,414	3,632	-	-
	7,812	6,767	162	79

### Note 8 Notes and Accounts Receivable - Trade

	<i>Consolidated</i>		<i>Parent Company</i>	
	<i>1991</i>	<i>1990</i>	<i>1991</i>	<i>1990</i>
<i>Due before 12 months</i>				
<i>Subsidiary companies</i>				
Accounts receivable	-	-	1,225	1,316
Financial receivables	-	-	2,595	2,909
Notes receivable	-	-	7	178
	-	-	3,827	4,403
<i>Other</i>				
Accounts receivable	13,419	15,334	1,538	1,456
Notes receivable	70	174	51	56
	13,489	15,508	1,589	1,512
<i>Due after 12 months</i>				
Accounts receivable	320	209	79	72
Notes receivable	994	168	96	129
	1,314	377	175	201

The allowance for doubtful accounts which has reduced the amounts shown above includes allowances for estimated losses based on commercial risk evaluations. The allowance does not include provisions for potential losses of a political nature.

### Note 9 Other Current Assets

	<i>Consolidated</i>		<i>Parent Company</i>	
	<i>1991</i>	<i>1990</i>	<i>1991</i>	<i>1990</i>
Prepaid expenses and accrued revenues	928	703	211	125
Advances to suppliers	258	292	6	-
Other current assets	2,253	1,808	646	635
	3,439	2,803	863	760

### Note 10 Deposits Related to Untaxed Reserves

	Consolidated		Parent Company	
	1991	1990	1991	1990
Account for General reserve for future capital expenditures	0	27	-	4
Account for Development reserve	2	11	-	1
Other	80	31	-	-
	82	69	-	5

### Note 11 Investments

The following listing shows certain shareholdings owned directly and indirectly by the Parent Company. A complete listing of shareholdings, prepared in accordance with the Swedish Companies Act and filed with the Swedish Patent and Registration Office, may be obtained upon request to Telefonaktiebolaget LM Ericsson, Corporate Financial Control, S-126 25 Stockholm, Sweden.

Shares directly owned by the Parent Company		Percentage of ownership	Par value	Carrying value	
<i>Subsidiaries</i>					
<i>Sweden</i>					
IV	ELLEMTTEL Utvecklings AB	Sweden	50	SEK 5	6
I	Ericsson Business Communications AB	Sweden	100	SEK 360	335
I	Ericsson Cables AB	Sweden	100	SEK 140	140
I	Ericsson Components AB	Sweden	100	SEK 58	49
I	Ericsson Radar Electronics AB	Sweden	100	SEK 30	128
I	Ericsson Radio Systems AB	Sweden	100	SEK 50	52
I	Ericsson Network Engineering AB	Sweden	100	SEK 25	26
I	Ericsson Telecom AB	Sweden	100	SEK -	-
I	Radiosystem Sweden AB	Sweden	100	SEK 20	20
III	LM Ericsson Fastigheter AB	Sweden	100	SEK 47	145
	Other		-	SEK -	73
III	Revox S.A.	France	100	FRF 20	32
<i>Europe (excluding Sweden)</i>					
V	Ericsson Treasury Services Ireland	Ireland	100	USD -	901
V	Ericsson Treasury Ireland Ltd	Ireland	100	USD 81	508
C	Ericsson Iberian Finance Ireland	Ireland	100	ESB 3,700	216
III	LM Ericsson Holdings Ltd	Ireland	100	IEP 2	14
III	Ericsson SETEMER S.p.A.	Italy	71	ITL 15,259	97
III	Ericsson Holding International B.V.	The Netherlands	100	NLG 57	667
III	Swedish Ericsson Company Ltd	United Kingdom	100	GBP 15	757
IV	Ericsson Eurolab Deutschland GmbH	Germany	100	DEM -	2
	Other		-	-	67
<i>U.S.A. and Canada</i>					
III	Ericsson North America Inc.	United States	100	USD n.p.v.	540
III	Ericsson GE Mobile Communications Holding Inc.	United States	60	USD -	1,989
<i>Latin America</i>					
II	Cía Argentina de Teléfonos S.A.	Argentina	78	ARA 59	24
I	Cía Ericsson S.A.C.I.	Argentina	100	ARA 5	3
I	Fios e Cabos Plásticos do Brasil S.A.	Brazil	22 *	NCZ n.p.v.	67
I	Ericsson de Colombia S.A.	Colombia	92 **	COP 221	27
I	Teleindustria Ericsson S.A.	Mexico	74	MXP n.p.v.	302
I	Cía Anónima Ericsson	Venezuela	100	VEB 10	10
	Other		-	-	18
<i>Other Countries</i>					
III	Teleric Pty. Ltd.	Australia	100	AUD 20	99
I	Ericsson Telecommunications Sdn Bhd	Malaysia	70	MYR 2	4
	Other		-	-	25
				<b>Total</b>	<b>7,343</b>
<i>Associated Companies</i>					
I	Ericsson do Brasil Comércio e Indústria S.A.	Brazil	51 ***	NCZ 24	82
I	MET S.A.	France	20 ****	FRF 50	53
I	Perwira Ericsson Sdn Bhd	Malaysia	40	MYR 2	5
I	Oriental Telecommunication Company Ltd	Republic of Korea	50	KRW 3,000	31
I	Ericsson Taiwan Ltd	Taiwan	55	TWD 55	12
V	AB LM Ericsson Finans	Sweden	90 ****	SEK 29	41
I	Schrack Elektronik AG	Austria	34	ATS 14	166
	Other		-	-	36
				<b>Total</b>	<b>426</b>
<i>Other Companies</i>					
	Other		-	-	72
				<b>Total</b>	<b>72</b>

<i>Shares owned by the subsidiaries</i>		<i>Percentage of ownership</i>	
<i>Subsidiaries Sweden</i>	I Ericsson Radio Systems Sverige AB	Sweden	60
	I Svenska Elgrossist AB, SELGA	Sweden	67
<i>Europe (excluding Sweden)</i>	I Ericsson Mobile Communications AB	Sweden	60
	I Ericsson Business Communications NV/SA	Belgium	100
	I LM Ericsson A/S	Denmark	100
	I Oy LM Ericsson Ab	Finland	100
	I LM Ericsson Ltd	Ireland	100
	I Ericsson FATME S.p.A.	Italy	71
	I Ericsson SIELTE S.p.A.	Italy	71
	I Ericsson Telecommunicatie B.V.	The Netherlands	100
	I Ericsson Radio Systems B.V.	The Netherlands	100
	III Ericsson Holding A/S	Norway	100
	I Ericsson Telecom A/S	Norway	100
	I Ericsson Telecomunicaciones S.A.	Spain	100
<i>U.S.A. and Canada</i>	I Ericsson Ltd	United Kingdom	100
	I Ericsson Mobilfunk GmbH	Germany	100
	I Ericsson GE Mobile Communications Inc.	Canada	60
	I Ericsson GE Mobile Communications Inc.	USA	60
	III Ericsson GE Holding Inc.	USA	60
	I Ericsson Radio Systems Inc.	USA	60
	I Ericsson Cables Inc.	USA	100
	I Ericsson Business Communications Inc.	USA	100
	I Ericsson Network Systems Inc.	USA	100
	<i>Latin America</i>	I Fábricas Colombianas de Materiales Eléctricos Facomec S.A.	Colombia
I Ericsson de Guatemala S.A.		Guatemala	71
I Telecomponentes Ericsson S.A. de C.V.		Mexico	73
I Conductores Latincasa S.A. de C.V.		Mexico	50
<i>Other Countries</i>	I Ericsson Australia Pty. Ltd.	Australia	100
	I Ericsson Network Engineering Pte. Ltd.	Singapore	100
	I Ericsson Telekommunikasyon A.S.	Turkey	100

## Key to functions of companies:

I Manufacturing and distributing companies	* Through subsidiary holdings, total holdings amount to 52% of Fios e Cabos Plásticos do Brasil S.A.
II Telephone operating companies	** Through subsidiary holdings, total holdings amount to 100% of Ericsson de Colombia S.A. *** The voting shares total 26%.
III Holding companies	**** The voting shares total 40%.
IV Development companies	***** Including holdings of associated companies, total holdings in MET S.A. amount to 50%.
V Finance companies	

**Note 12 Other Noncurrent Assets**

<i>Consolidated</i>	<i>1991</i>	<i>1990</i>
<i>Goodwill, net</i>		
Balance, January 1	258	409
Acquisitions/divestments	140	-103
Amortization	-61	-48
Net carrying value, December 31	337	258
<i>Other noncurrent assets</i>	1,029	1,425
	1,366	1,683

**Note 13 Property, Plant and Equipment**

Property, plant and equipment is recorded at cost, including freight, customs duties and construction or installation costs (including labor and related overhead). However, certain assets have been revalued in accordance with accounting principles generally accepted in Sweden and in certain other countries.

Standard depreciation is based on historical cost and revaluation adjustments. Such depreciation is based on the estimated useful lives of the assets and

the accumulated amounts are deducted from the value of the assets.

Deferred taxes in total accumulated depreciation in excess of the accumulated standard depreciation is reported under Deferred taxes on timing differences in the balance sheet.

	<i>Consolidated</i>		<i>Parent Company</i>	
	<i>1991</i>	<i>1990</i>	<i>1991</i>	<i>1990</i>
<i>Cost</i>				
Land	203	160	70	31
Land improvements	81	75	23	19
Buildings	3,223	2,875	813	658
Telephone plants	1,122	1,033	-	-
Machinery and equipment	13,784	11,980	3,431	2,944
Constructions in progress	716	676	213	172
	<u>19,129</u>	<u>16,799</u>	<u>4,550</u>	<u>3,824</u>
<i>Accumulated standard depreciation</i>				
Land improvements	33	29	11	11
Buildings	913	857	287	276
Telephone plants	473	439	-	-
Machinery and equipment	7,780	6,875	1,719	1,500
	<u>9,199</u>	<u>8,200</u>	<u>2,017</u>	<u>1,787</u>
<i>Net carrying value</i>	<u>9,930</u>	<u>8,599</u>	<u>2,533</u>	<u>2,037</u>
<i>Accumulated total depreciation</i>				
Land improvements	51	44	19	16
Buildings*	1,453	1,318	353	300
Telephone plants	473	439	-	-
Machinery and equipment	9,400	8,436	2,508	2,193
	<u>11,377</u>	<u>10,237</u>	<u>2,880</u>	<u>2,509</u>
<i>Accumulated depreciation in excess of standard depreciation</i>	<u>2,178</u>	<u>2,037</u>	<u>863</u>	<u>722</u>
*) After transfer of accumulated depreciation in excess of standard depreciation to Revaluation reserve of	386	386	303	303
<i>Revaluation adjustments</i>				
Land	186	183	148	148
Buildings	734	583	336	336
Machinery and equipment	98	149	-	-
	<u>1,018</u>	<u>915</u>	<u>484</u>	<u>484</u>
<i>Less - Accumulated depreciation</i>				
Land improvements	2	-	-	-
Buildings	383	338	266	252
Machinery and equipment	86	118	-	-
	<u>471</u>	<u>456</u>	<u>266</u>	<u>252</u>
<i>Net carrying value</i>	<u>547</u>	<u>459</u>	<u>218</u>	<u>232</u>
<i>Tax assessment values (Sweden)</i>				
Land and land improvements	483	473	330	321
Buildings	1,361	1,319	815	792

#### Note 14 Short-Term Borrowings

Short-term borrowings consist of bank overdrafts, bank loans and other short-term financial loans. The unused portion of lines of credit for the Company amounted to SEK 2,207 m. In addition, the Parent Company had unused long-term lines of credit amounting to SEK 834 m.

#### Note 15 Other Current Liabilities

	<i>Consolidated</i>		<i>Parent Company</i>	
	<i>1991</i>	<i>1990</i>	<i>1991</i>	<i>1990</i>
Accrued expenses and prepaid revenues	5,149	4,547	1,359	1,284
Other	3,385	3,294	188	231
	<u>8,534</u>	<u>7,841</u>	<u>1,547</u>	<u>1,515</u>

#### Note 16 Bond loans and Other Long-Term Liabilities

	<i>1991</i>	<i>1990</i>
<i>Parent Company</i>		
Debentures (maturing from 1992 to 2004)	1,297	1,108
Other long-term loans (maturing from 1992 to 2006)	1,400	461
Other long-term liabilities	114	1
	<u>2,811</u>	<u>1,570</u>
Less - Current maturities	110	689
Total Parent Company	<u>2,701</u>	<u>881</u>
<i>Subsidiaries</i>	<i>1991</i>	<i>1990</i>
( <i>excl. liabilities to subsidiary companies</i> )		
Mortgage and other collateralized loans (maturing from 1992 to 2006)	829	654
Other long-term loans (maturing from 1992 to 2014)	444	590
Other long-term liabilities	438	357
	<u>1,711</u>	<u>1,601</u>
Less - Current maturities	175	160
Total Subsidiaries	<u>1,536</u>	<u>1,441</u>
Total	<u>4,237</u>	<u>2,322</u>

Maturities of consolidated long-term debentures, other long-term loans and other long-term liabilities (excluding other long-term liabilities in subsidiaries with deduction of short-term portion of SEK 5 m.) were as follows:

1993	247
1994	821
1995	135
1996	1,631
1997	106
1998 and thereafter through 2014	864
	<u>3,804</u>

### Note 17 Convertible Debentures

The Parent Company has two debenture loans outstanding. Both were issued during 1987. One is in the amount of CHF 135 m., with a maturity of 15 years and interest of 2.75 %. The debentures are convertible up to and including February 1, 2002 at a conversion price of SEK 65 per B share. During 1991 debentures in the amount of CHF 0.4 m. were converted to 26,105 B shares.

The second loan, offered exclusively to Ericsson employees, was in the amount of SEK 626.4 m., with interest of 11.25 %. The debentures are convertible up to and including March 15, 1993 at a conversion price of SEK 53 per B share. During 1991 debentures amounting to SEK 12.3 m. were converted to 231,267 B shares.

In total, the increase in the number of shares through conversion in 1991 was 257,372. As a result, capital stock rose to SEK 2,060 m. and the number of shares to 205,986,455.

Upon conversion of all convertible debentures outstanding, the number of shares will be further increased by 11,185,524.

During the period beginning January 1, 1992 through February 15, 1992, additional debentures were converted to 4,775 B shares; as a result the total number of shares carrying rights to dividends as of the record date is 205,991,230.

### Note 18 Pension Liabilities

The pension liabilities, SEK 4,526 m., include the Parent Company's and the Swedish companies' obligations in the amount of SEK 3,527 m. in 1991 and SEK 3,195 m. in 1990 in accordance with an agreement with the Pension Registration Institute (PRI).

The Parent Company's pension liabilities, SEK 1,817 m., include an obligation in the amount of SEK 1,719 m. in 1991 and SEK 1,543 m. in 1990 in accordance with its agreement with PRI.

### Note 19 Timing differences

Companies in certain countries are permitted to make allocations to reserves that are deductible for tax purposes but which otherwise are not warranted in terms of corporate accounting.

Effective in 1991, the Inventory reserve, the Income equalization reserve and the Internal profit reserve were abolished and appropriations made to them earlier were withdrawn. The reserves were replaced by a Tax equalization reserve calculated as either 30 percent of shareholders' equity or 15 percent of a company's annual payroll.

To reduce tax impact, the difference between the liquidated reserves and allocations made to the Tax equalization reserve may be recovered over a period of four years. In the 1991 accounts, a maximum of 75 percent of the difference was permitted to be

allocated to a special reserve, deferred amount for the Inventory reserve, etc. In 1992 and 1993 the deferred amount for the Inventory reserve, etc. may not exceed 50 and 25 percent of the difference, respectively.

The Reserve for receivables is based on receivables from customers in economically or politically unstable countries.

The Foreign exchange reserve and Depreciation in excess of standard depreciation are described in paragraphs (d) and (g) under Accounting Policies.

#### Timing differences 1991

	Jan. 1	Alloca- tions (+) / Withdraw- als (-)	Dec. 31
<i>Parent Company</i>			
Inventory reserve, Income equalization reserve and Reserve for internal profits	1,696	-1,696	0
Deferred amount for Inventory reserve, etc.	0	1,250	1,250
Reserve for doubtful receivables	451	-115	336
Investment reserves	101	-65	36
Foreign exchange reserve	7	79	86
	2,255	-547	1,708

#### Consolidated

Inventory reserve, Income equalization reserve and Reserve for internal profits *	2,346	-2,376	-30
Deferred amount for Inventory reserve, etc.	0	2,044	2,044
Tax equalization reserve	0	12	12
Reserve for doubtful receivables	839	-41	798
Investment reserves	197	-157	40
Foreign exchange reserve	7	79	86
Accumulated depreciation in excess of standard depreciation	2,037	141	2,178
	5,426	-298	5,128
Deferred taxes	-1,783	104	-1,679

Equity in timing differences before minority interest	3,643	-194	3,449
Minority interest	-171	-42	-213
Equity in timing differences	3,472	-236	3,236

\* The reserve for internal profits in inventory related to internal sales is deducted from the inventory reserve.

Changes in other untaxed reserves in the Parent Company in 1990 consisted of the following: Withdrawal from Inventory reserve, SEK 275 m. (o); withdrawal from Reserve for doubtful receivables and internal profits, SEK 296 m. (-763); withdrawal from Investment reserves, SEK 40 m. (15); allocation to Income equalization reserve, SEK 325 m. (o); and allocation to the Foreign exchange reserve, SEK 7 m. (o).

## Note 20 Stockholders' Equity

### Capital Stock

Capital Stock at December 31, 1991 consisted of the following:

	Number of shares out- standing	Aggregate par value
A shares (par value SEK 10)	18,642,575	186
B shares (par value SEK 10)	187,343,880	1,874
	205,986,455	2,060

The capital stock of the Company is divided into two classes: Class A shares (par value SEK 10) and Class B shares (par value SEK 10). Both classes have the same rights of participation in the net assets and earnings of the Company; however, Class A shares are entitled to one vote per share while Class B shares are entitled to 1/1000<sup>th</sup> of one vote per share.

### Reserves not Available for Distribution

In accordance with statutory requirements in Sweden and certain other countries in which the Company is operating, reserves not available for distribution are reported.

Generally, investments in subsidiaries and associated companies and property, plant and equipment may be revalued in accordance with the Swedish Accounting Act. Revaluation adjustments to property, plant and equipment must be depreciated when required under accounting principles generally accepted in Sweden. Land and buildings may be revalued up to a maximum of the tax assessed value of the assets if the value of the assets is considerably higher than their underlying carrying value.

The Swedish Companies Act requires that revaluations be credited to capital stock or to reserves not available for distribution and that they may be used for necessary write-downs of other items of property, plant and equipment and other noncurrent assets.

The appropriations of retained earnings to legal reserves in 1991 include earnings in associated companies amounting to SEK 13 m.

Increases or decreases in reserves not available for distribution have no effect on net income.

### Cumulative Translation Adjustments

This item is included in stockholders' equity consisting of translation adjustments resulting from the translation to Swedish kronor of financial statements of subsidiaries and associated companies to the extent that the local currencies of such companies, or the United States dollar, are considered to be functional currencies in accordance with State-

ment No. 52 of the Financial Accounting Standards Board of the U.S.A. (SFAS 52), see (d) under Notes to the Financial Statements.

### Changes in Stockholders' Equity

	Capital stock	Reserves not avail- able for dis- tribution	Equity in timing differ.	Available retained earnings	Total
<b>Consolidated</b>					
Balance, January 1, 1991	2,057	5,934	3,472	5,290	16,753
Appropri- ations to legal reserves		168		-168	0
Conversion of debentures	3	12			15
Dividends				-720	-720
Proceeds from unclaimed stock dividend shares		3			3
Revaluation of fixed assets		116			116
Changes in timing differences			-236	236	0
Changes in cumulative translation adjustments		-284			-284
Translation at year-end exchange rates		71		-71	0
Net income for 1991				886	886
Balance December 31, 1991	2,060	6,020	3,236	5,453	16,769

Of the retained earnings, SEK 42 m. will be appropriated to reserves not available for distribution in accordance with the proposals of the respective companies' boards of directors. In evaluating the consolidated financial position, it should be noted that earnings in the foreign companies may in certain cases be subject to taxation when transferred to Sweden and that, in some instances, such transfers of earnings may be limited by currency restrictions.

Consolidated unrestricted retained earnings are translated at the year-end exchange rate.

Cumulative translation adjustments have been distributed among unrestricted and restricted stockholders' equity in accordance with this method.

Of the change in the above mentioned differences SEK 0 m. in 1991 was attributable to companies sold.

	Capital stock	Reserves not avail- able for dis- tribution	Available retained earnings	Total
<i>Parent Company</i>				
Balance, January 1, 1991	2,057	3,114	2,284	7,455
Conversion of debentures	3	12	-	15
Proceeds from unclaimed stock dividend shares	-	3	-	3
Dividends	-	-	-720	-720
Net income for 1991	-	-	830	830
Balance, December 31, 1991	2,060	3,129	2,394	7,583

### Note 21 Assets Pledged as Collateral

	Consolidated		Parent Company	
	1991	1990	1991	1990
Real estate mortgages	414	386	147	110
Other mortgages	410	483	160	160
Bankdeposits	31	251	-	-
Accounts receivable - trade	-	2	-	-
	855	1,122	307	270

At December 31, 1991, the Parent Company had pledged no assets in favor of subsidiaries. However, under certain conditions, it may pledge collateral for certain subsidiaries' pension obligations.

### Note 22 Contingent Liabilities

	Consolidated		Parent Company	
	1991	1990	1991	1990
Discounted notes receivable	-	2	-	-
Receivables sold with recourse	671	678	659	609
Unrecorded pension commitments	137	69	-	-
Other guarantees	1,188	1,343	3,577	2,264
	1,996	2,092	4,236	2,873

Of the guarantees assumed by the Parent Company, SEK 2,968 m. in 1991 and SEK 1,782 m. in 1990 related to subsidiary companies.

### Note 23 Investments in Associated Companies

The Company has interests in associated companies which are accounted for under the equity method. Goodwill, net, constitutes of SEK 476 m. of the investments. Details of such investments are given in Note II.

Intercompany profits arising on transactions between the Company and associated companies have been eliminated in the consolidated financial statements.

Dividends received from companies accounted for under the equity method were SEK 57 m. in 1991, SEK 43 m. in 1990 and SEK 75 m. in 1989.

Undistributed earnings of associated companies included in consolidated equity were SEK 611 m. in 1991, SEK 653 m. in 1990 and SEK 641 m. in 1989.

### Note 24 United States Generally Accepted Accounting Principles

Elements of the Company's accounting policies which differ significantly from generally accepted accounting principles in the United States (U.S. GAAP) are described below:

#### (a) Revaluation of Assets

Certain property, plant and equipment has been revalued at an amount in excess of cost. This procedure, under certain circumstances, is allowed under Swedish accounting practice. Accounting principles generally accepted in the United States do not permit the revaluation of assets in the primary financial statements.

#### (b) Appropriations and Untaxed Reserves

As described in Note 19, the Company is allowed to make appropriations to untaxed reserves which are used principally to defer income taxes. For financial reporting purposes, these appropriations are deducted in determining income before taxes. Effective in 1990 (with retroactive adjustment in 1989) allocations to reserves in the consolidated accounts for deferred taxes are made on appropriations, inclusive taxes on intercompany profits paid by selling companies (previously reported in this note).

#### (c) Capitalization of Interest Expenses

In accordance with Swedish accounting practice, the Company has not capitalized interest costs incurred in connection with the financing of expenditures for the construction of property, plant and equipment. Such costs are required to be capitalized in accordance with accounting principles generally accepted in the United States.

#### (d) Capitalization of Software Development Costs

In accordance with Swedish accounting principles, software development costs are charged against income in the year incurred. Under accounting principles generally accepted in the United States, these costs are capitalized after the product involved has reached a certain degree of technical



completion. Capitalization ceases and depreciation begins when the product becomes available to customers. The depreciation period of these capitalized assets is from three to five years. Capitalization amounting to SEK 1,663 m. has increased income and depreciation amounting to SEK 899 m. was charged against income for the period when calculating income in accordance with US accounting principles.

These principles, which are set forth in the "Statement of Financial Accounting Standards No. 86, Accounting for the Cost of Computer Software to be Sold, Leased or Otherwise Marketed," have in the 1991 accounts, due to their relative importance, affected the calculation of income in accordance with generally accepted accounting principles in the United States.

**(e) Business Combination Adjustments**

In accordance with Swedish accounting practice, the Company shows negative goodwill as a deferred credit which is released as income over a period not exceeding ten years (also see Notes to the Financial Statements (b) and Note 12). Under accounting principles generally accepted in the United States, negative goodwill should be applied as a reduction of noncurrent assets acquired and be amortized over the economic life of each asset.

**(f) Tax on retained earnings in associated companies**

In accordance with Swedish accounting practice an allocation is not made for deferred taxes on undistributed profits of companies that are reported applying the equity accounting method. Under accounting principles generally accepted in the United States, the company holding shares should make allocations for deferred taxes on dividends paid from these earnings.

**(g) Translation of Noncurrent Receivables and Long-Term Liabilities**

Under accounting principles generally accepted in the United States, all assets and liabilities denominated in foreign currencies are translated at the current exchange rate. Under Swedish accounting practice, effective in 1990, exchange gains arising from noncurrent receivables and payables denominated in foreign currencies may not be recorded as income for individual legal entities until realized. As described under Notes to the Financial Statements (d) receivables and liabilities in foreign currencies have been translated at year-end exchange rates.

**(h) Sale of Property**

In 1984, and 1987, Group Companies sold properties which are being leased to other subsidiaries under contracts which expire in 1997.

Under accounting principles generally accepted in the United States, the gain on sales during 1984 is reduced by the present value of future rental payments, which are deferred and amortized over the remaining term of the contract. According to gener-

ally accepted accounting policies the gain on the sale during 1987 is considered a financing arrangement and the proceeds are therefore treated as a liability. In accordance with Swedish accounting practice, no reduction in profit has to be made if the sale price does not exceed the market price and if leasing costs do not exceed normal market leasing rates.

**(i) Deferred Income Taxes**

There is no provision for deferred income taxes under Swedish accounting practice. Accounting principles generally accepted in the United States require full disclosure of all deferred tax allocations. As described above in (b), allocations were made in 1989, 1990 and 1991 to deferred taxes on timing differences in accordance with the liability method, and based on the applicable tax rates in the current year.

The "deferred method" has been used in calculating deferred tax when determining income and equity in accordance with U.S. GAAP. Accordingly, the liability is the sum of the various years' deferred taxes, calculated by applying the tax rate for each year.

**(j) Pensions**

The Company participates in several pension plans which cover substantially all employees of its Swedish operations as well as certain employees in foreign subsidiary companies. The Swedish plans are administered by an institution jointly established for Swedish industry (PRI) in which most companies in Sweden participate. The level of benefits and actuarial assumptions are established by this institution and, accordingly, the Company may not change these.

In December 1985 the Financial Accounting Standards Board issued a new recommendation on accounting for pensions, Statement No. 87, Employers' Accounting for Pensions. From 1989 this recommendation is used for determining income in accordance with generally accepted accounting principles in the United States.

The effects of using this recommendation for the Company principally relate to the actuarial assumptions, and that the calculation of the obligation should reflect future compensation levels. The difference relative to pension liabilities booked at introduction in 1989 is distributed over the estimated remaining service period.

**(k) Net Income per Share**

Net income per share has been calculated on the annual weighted average number of shares outstanding as well as the annual weighted average number of shares after full conversion of outstanding convertible debentures (also see Note 6).

The application of accounting principles generally accepted in the United States, as described above, would have had the following approximate effect on consolidated net income and stockholders' equity. It should be noted that, in arriving at the individual items increasing or decreasing reported net income, consideration has been given to the effect of minority interests.

	1991	1990	1989
Net income as reported in the consolidated income statements	886	3,450	2,528
Items increasing reported income:			
Depreciation on revaluation adjustments including effect on sale	34	28	24
Capitalization of development expenses	764	—	—
Capitalization of interest expenses	18	17	35
Sale of property	—	1	8
Pensions	116	173	18
	932	219	85
Items decreasing reported income:			
Deferred income taxes	257	321	473
Business combination adjustments	14	5	18
Income taxes on undistributed earnings of associated companies	—4	—35	12
	267	291	503
Net increase/decrease (–) in reported net income	665	–72	418
Approximate net income in accordance with accounting principles generally accepted in the United States	1,551	3,378	2,110
Approximate net income per share in accordance with accounting principles generally accepted in the United States	7.53	16.45	10.54
after full conversion	7.35	15.71	9.99

#### (l) Stockholders' Equity

Approximate stockholders' equity in accordance with accounting principles generally accepted in the United States	15,634	15,049	12,359
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#### Supplementary Information Required under the Swedish Companies Act

##### Average Number of Employees and Remuneration in 1991

	Average number of employees		Remuneration
	Men	Women	
<i>Consolidated</i>			
Sweden	19,955	9,323	5,526
Other countries	29,193	9,667	6,630
	49,148	18,990	12,156
<i>Parent Company</i>			
Sweden	9,291	4,530	2,498
Other countries	529	47	89
	9,820	4,577	2,587

Paid to Board of Directors,  
President and  
Corporate Executive  
Vice Presidents

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Remuneration in foreign currency has been translated to Swedish kronor at average exchange rates for the year.

The Parent Company has operational units with 20 or more employees in 12 Swedish municipalities and has operations in 15 countries. On a consolidated basis there are 33 operational units in Sweden and operations in 55 countries.

A detailed listing showing the average number of employees and the amounts of remuneration, prepared in accordance with the requirements of the Swedish Companies Act, is filed with the Swedish Patent and Registration Office. The list is available upon request to Telefonaktiebolaget LM Ericsson, Corporate Financial Control, S-126 25 Stockholm, Sweden.

#### Special Information Regarding the Parent Company

Sales of the Parent Company amounted to SEK 12,301 m. (SEK 10,744 m.), of which exports accounted for 79 (83) percent. Consolidated companies were customers for 58 (65) percent of the Parent Company's sales, while 57 (45) percent of the Company's total purchases of goods and services were from such companies.

Loans totaling SEK 2 m. have been made to a total of 400 employees for the purchase of shares in LM Ericsson's Share Saving Fund.

Assets totaling SEK 7 m. have been pledged as collateral for loans obtained by employees for the purchase of housing and private vehicles.

#### Publications for Investors

Financial publications, including the annual report, interim reports and Form 20-F (filed with The Securities and Exchange Commission, U.S.A. no later than June 30 every year) may be obtained without charge upon request to: Telefonaktiebolaget LM Ericsson, S-126 25 Stockholm, Sweden.

## Audit Report

### *Telefonaktiebolaget LM Ericsson*

We have examined the annual report, the consolidated financial statements, the accounting records and the administration by the Board of Directors and the President for the year 1991 in accordance with generally accepted auditing standards.

The annual report and the consolidated financial statements present the financial position, the results of operations and changes in financial position of the Parent Company and of the Parent Company and consolidated subsidiaries in accordance with good accounting practice in Sweden, as described in the notes to

the financial statements, and comply with the Swedish Companies Act.

### *We recommend*

*that* the Company's statement of income and balance sheet be adopted,  
*that* the consolidated statement of income and balance sheet be adopted,  
*that* the unappropriated earnings be dealt with in accordance with the proposal in the administration report, and  
*that* the Board of Directors and the President be discharged from responsibility for their administration in respect of the year 1991.

*Stockholm, March 13, 1992*

Carl-Eric Bohlin  
*Swedish Authorized  
 Public Accountant  
 Price Waterhouse*

Nils-Axel Frisk

Olof Herolf  
*Swedish Authorized  
 Public Accountant  
 Price Waterhouse*

## Ten-year Summary

SEK m.	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
<b>Results for Year</b>										
Net sales	45,793	45,702	39,549	31,297	32,400	31,644	32,496	29,378	25,244	19,470
Operating income	2,291	5,694	4,557	2,678	2,185	2,295	1,671	2,334	2,530	1,988
Financial net	-189	-163	-431	-553	-895	-1,180	-952	-914	-802	-949
Income before taxes	1,604	4,855	3,715	1,840	1,108	911	878	1,569	1,758	1,349
<b>Year-end Position</b>										
Total assets	49,625	47,167	40,856	34,625	33,282	34,232	37,122	37,632	30,606	25,737
Working capital	17,497	16,965	14,975	12,944	13,880	14,724	16,707	17,042	12,828	10,250
Property, plant and equipment, net	10,477	9,058	7,776	6,679	6,778	6,835	7,549	7,144	6,176	5,817
Long-term liabilities <sup>1)</sup>	11,037	8,795	9,008	9,945	10,864	11,163	8,566	7,658	6,673	7,230
Untaxed reserves							4,794	5,030	4,333	3,617
Stockholders' equity <sup>1)2)</sup>	16,769	16,753	13,996	10,909	9,897	9,694	9,298	9,075	8,386	5,965
– after full conversion <sup>1)2)</sup>	17,409	17,398	14,721	12,450	11,512	9,695	9,501	9,281	8,597	6,203
<b>Other Information</b>										
Adjusted net income per share, SEK <sup>3)</sup>										
– after actual taxes paid	3.69	15.33	11.67	5.41	3.58	2.99	2.52	6.11	6.89	5.01
after full conversion	3.69	14.66	11.06	4.82	3.56	2.99	2.51	5.98	6.73	4.87
– after actual and estimated deferred taxes	4.30	14.89	10.76	6.26	3.85	3.44	3.03	4.00	4.41	3.43
after full conversion	4.29	14.24	10.24	5.56	3.82	3.43	3.00	3.94	4.33	3.36
Net income per share in accordance with U.S. GAAP, SEK <sup>3)</sup>	7.53	16.45	10.54	6.43	3.44	3.44	3.98	3.90	4.95	3.22
after full conversion	7.35	15.71	9.99	5.81	3.36	3.44	3.79	3.90	4.90	3.22
Adjusted stockholders' equity per share, SEK <sup>1)2)3)</sup>	81	82	70	57	52	51	50	49	45	37
after full conversion	80	80	68	57	53	51	50	49	45	36
Cash dividends per share <sup>3)</sup>	3.50*	3.50	2.80	2.10	1.80	1.80	1.80	1.80	1.80	1.50
Shares outstanding – average (in thousands) <sup>3)</sup>	205,874	205,372	200,135	190,834	190,810	190,055	184,755	184,495	176,655	163,415
Additions to property, plant and equipment	3,583	3,448	2,672	1,739	1,592	1,643	2,677	2,192	1,645	1,662
Depreciation	1,863	1,572	1,294	971	1,213	1,133	1,308	1,039	945	774
Research and development – expenses	7,054	4,901	4,329	3,529	3,204	3,117	2,798	2,355	1,973	1,638
– in percent of net sales	15.4	10.7	10.9	11.3	9.9	9.9	8.6	8.0	7.8	8.4
<b>Ratios</b>										
Return on equity, percent <sup>1)</sup>	5.3	20.4	17.5	11.5	7.5	6.9	6.1	8.5	10.9	10.0
Return on capital employed, percent <sup>1)</sup>	12.1	25.9	23.7	16.0	13.1	13.1	11.3	13.6	17.8	16.5
Equity ratio, percent <sup>1)</sup>	37.9	39.3	37.8	33.9	32.0	30.5	26.5	27.0	31.4	26.9
Risk-bearing capital ratio, percent	41.3	43.1	42.7	40.2	38.9	37.5	32.9	33.7	38.5	33.9
Debt-equity ratio <sup>1)</sup>	0.7	0.5	0.6	0.8	1.0	1.1	1.5	1.5	1.1	1.5
Current ratio	1.7	1.7	1.8	1.9	2.0	1.9	1.6	1.6	1.8	1.7
<b>Year-end Statistics</b>										
Backlog of orders	28,777	30,415	29,426	26,876	24,171	23,625	23,055	25,161	21,565	20,991
Number of employees worldwide	71,247	70,238	69,229	65,138	70,893	72,575	78,159	75,116	70,783	66,300
Sweden	31,244	30,817	32,226	32,094	37,386	38,559	40,172	37,458	34,543	31,130

\* For 1991, proposed by the Board of Directors

<sup>1)</sup> 1987 – 1989 adjusted for change in accounting policies

<sup>2)</sup> 1982 – 1986, adjusted stockholders' equity as stated in prior annual reports

<sup>3)</sup> 1982 – 1989 adjusted for 5-for-1 stock split

Definitions of terms used above are given on next page.

## Ten-year Summary

### Definitions of Terms Used on Previous Page

#### *Operating income*

Takes into account standard depreciation.

#### *Working capital*

Current assets less non-interest-bearing current liabilities.

#### *Property, plant and equipment*

Stated net of accumulated standard depreciation.

#### *Adjusted net income per share*

See (k) under Accounting Policies, and Note 6.

#### *Current ratio*

Current assets divided by current liabilities.

#### *Adjusted stockholders' equity*

Only for the years 1982-1986. Defined as stockholders' equity as shown in the balance sheet (excluding minority interest in stockholders' equity) plus 50 percent of untaxed reserves (assuming 50 percent deferred taxes on untaxed reserves).

#### *Return on equity*

Defined as adjusted net income (after actual taxes paid and estimated deferred taxes) expressed as a percentage of average adjusted stockholders' equity (based on the amounts at January 1 and December 31), adjusted for increases resulting from a reduction in the tax rate on the equity portion of timing differences.

#### *Return on capital employed*

Defined as the total of operating income plus financial income as a percentage of average (based on the amounts at January 1 and December 31) capital employed. Capital employed is defined as

total assets less current noninterest-bearing debts and deferred taxes on timing differences. For the years 1982-1986, reduced by 50 percent on untaxed reserves. For the years 1982-1985, the return has been based on capital employed at year-end.

#### *Equity ratio*

Defined as the total of stockholders' equity and minority interest in equity of consolidated subsidiaries, expressed as a percentage of total assets.

In the years 1982-1986, defined as total of stockholders' equity, 50 percent of untaxed reserves and minority interest in equity of consolidated subsidiaries, expressed as a percent of total assets.

#### *Risk-bearing capital ratio*

Defined as the total of stockholders' equity, deferred taxes on timing differences and minority interest in equity of consolidated subsidiaries, expressed as a percentage of total assets. In the years 1982-1986, defined as total of stockholders' equity, untaxed reserves and minority interest in equity of consolidated subsidiaries, expressed as a percent of total assets.

#### *Debt-equity ratio*

Defined as full interest-bearing liabilities divided by the total of stockholders' equity and minority interest in equity of consolidated subsidiaries. In the years 1982-1986, defined as full interest-bearing liabilities divided by the total of stockholders' equity, 50 percent of untaxed reserves, and minority interest in equity of consolidated subsidiaries.

#### *Net income per share after full conversion*

If adjusted net income per share after full conversion is higher than adjusted net income per share before full conversion, the lower amount is shown.

*Operating Income*

Combined operating results of the Public Telecommunications, Radio Communications, Business Communications and Components business areas will in the future be reported under the heading Telecommunications Systems. Operations in these business areas are to an increasing extent interrelated; a division of their operating results does not provide a proper view of operational developments.

The business areas grouped in Telecommunications Systems employ common technologies to a substantial degree and the systems being marketed often include components and products from a number of them. The AXE system is used in both public telecommunications networks and in the radio-based systems for mobile telephony. Radio technology is also utilized in cordless business communications

and transmission in public telecommunications networks.

Telecommunications Systems reported sharply lower operating income. This was due primarily to the expanded technical programs in the public telecommunications and radio communications sectors. At the same time, many markets weakened as a result of the economic downturn. In the case of public telecommunications, this was particularly true in Spain, Australia and Mexico, while weakness in the markets for mobile telephone systems and instruments was more general.

Strong pressure on prices caused a decline in earnings from small subscriber exchanges and telephone instruments, while the decrease in income from the MD110 business communications system was moderate, despite severe competition in the main markets.

	<i>Sales</i>			<i>Operating income</i>		
	<i>1991</i>	<i>1990</i>	<i>1989</i>	<i>1991</i>	<i>1990</i>	<i>1989</i>
Telecommunications Systems	37,498	37,348	30,970	1,963	5,020	4,625
Cable and Network	6,506	6,484	5,220	434	580	350
Defense Systems	1,611	1,758	3,252	118	35	-46
Other operations, capital gains and general expenses	178	112	107	-224	59	-372
	45,793	45,702	39,549	2,291	5,694	4,557

	<i>Employees</i>		
	<i>1991</i>	<i>1990</i>	<i>1989</i>
Telecommunications Systems	55,114	54,780	53,715
Cable and Network	11,836	11,289	8,742
Defense Systems	2,815	2,843	5,510
Other operations	1,482	1,326	1,262
	71,247	70,738	69,229

**Total sales in 1991  
amounted to  
SEK 21,924 m.**

*Operations are focused on the development, production and installation of telecommunications equipment for telecom operators. The Business Area comprises the following product areas:*

**Telephone exchanges**

**Transmission equipment**

**Operational maintenance**

**Increased investment in transport networks**

Ericsson is well established as a leading company in public telecommunications. AXE is today one of the world's most widely installed systems. AXE has a strong position in the market for local and international telecom exchanges. Seven million local AXE lines were installed during 1991, an increase from a year earlier.

International competition is becoming increasingly severe. Ericsson is competing with Alcatel, AT&T, NEC, Northern Telecom and Siemens in the much more open markets created through deregulation of the telecommunications industry and the new markets in eastern Europe.

The AXE system has been introduced in 87 markets. The dominant portion of sales were made to customers in Europe and North America. The Public Telecommunications Business Area is investing in development programs in order to further strengthen AXE's position in the market. Ericsson's mobile telephone systems, in which AXE plays a key role, are providing a good boost. A new generation of processors that double AXE capacity was placed in service during the year.

Ericsson is continuing its involvement in the RACE (Research in Advanced Communications in Europe) program. The Company is currently participating in 10 new projects within the framework of RACE II. The principal theme of these projects involves broadband technology and related operation support systems.

**Investment in transport network products**

In order to broaden its product programs, Public Telecommunications has increased its investments in the transmission field in recent years. ETNA (Ericsson Transport Network Architecture) was introduced during the year. This is a software-controlled transmission network in which digital

cross-connections (DXC) provide increased flexibility, and synchronous transmission systems (SDH) facilitate new combinations and improve transmission quality. ETNA also includes FMAS (Facility Management Application System), an operation support system for transmission networks that is part of the Business Area's family of products in operation and maintenance of complete telecommunication networks.

Strategically important cooperation with two companies in the transmission field – Hans Kolbe & Co./Fuba of Germany and ASCOM of Switzerland – was begun during 1991. In both cases this is occurring through jointly owned companies that will work on transmission technology and participate in the further development of ETNA.

Ericsson's investments in transmission projects is strengthening its position in this field. This is of strategic importance since an increasingly large percentage of capital expenditures for telecommunications networks involves transmission technology.

**Success for operation support systems**

Increasing importance is being attached to systems for operation and maintenance of telecommunications networks. Ericsson's TMOS (Telecommunications Management Operation Support) family of products has attracted substantial interest. During 1991 major orders were signed for FMAS and NMAS (Network Management Application System), two subsystems in the TMOS group. The first system for operation and maintenance of mobile telephone networks was placed in operation at Mannesmann Mobilfunk in Germany.

With TMOS, Ericsson has a competitive range of products in this segment of the market. The objective is to become a leading international supplier of operation support systems.

**Geographic distribution  
of external sales,  
percent**



**The Business Area in brief**

*SEK m. and percentage of Ericsson totals*

	1991		1990		1989	
Order bookings, external	16,940	38%	21,571	44%	17,438	42%
Net sales, external	19,517	43%	20,414	45%	17,280	44%
Net sales, internal	2,407	—	2,200	—	1,934	—



**Each AXE exchange is adapted to meet its specific requirements. Testing prior to delivery is an important part of Ericsson's commitment to customers.**

***Continuing development of broadband technology***

Broadband technology will be introduced by a number of telecom operators by the mid-1990's. This new technology makes it possible to transmit much more information – such as data and video signals for high-resolution television

– than is possible in today's public networks.

System prototypes have now been completed at Ellementel, the development company owned jointly by Ericsson and Swedish Telecom. It will be possible to offer the first broadband products for public telecommunications networks in pace with market demand.



**Total sales in 1991 amounted to SEK 12,371 m.**

*The Business Area comprises the following product areas:*

**Mobile telephone systems**

**Mobile telephones**

**Mobile radio**

**Mobile data systems**

**Personal paging systems**

**Defense communications**

### *Greater mobility in telecommunications networks of the future*

Following several years of strong expansion, the market for mobile telephony softened in 1991. It was affected by the international recession and by the wait for the changeover from analog to digital technology that has just begun. As a result, orders booked by the Radio Communications Business Area declined slightly. Many new strategically important orders were received, including some following the end of the year, and Ericsson is maintaining its position as clearly a world leader in systems for mobile telephony.

At the same time, Ericsson is continuing its substantial investment in technical development. The ongoing development of systems for mobile telephony accounts for a large part of the increase in total technical costs.

Ericsson's strength vis-a-vis its competitors lies in its total switching, radio and network competence. This makes it possible, for example, for Ericsson to connect the large nationwide mobile telephone networks now being built up in the United States.

### *Development work on parallel tracks*

High technical costs are due to a large degree to the fact that Ericsson is making parallel investments to develop the GSM (Global System for Mobile Communications) mobile telephone system for Europe, the American digital system and the new digital system for Japan, where the company recorded a strategic breakthrough during the second half of the year. These investments are required to maintain Ericsson's very strong position in the world market.

At year-end 1991, Ericsson's share of the market for mobile telephone systems was more than 40 percent, with six percent of the market for mobile telephones. During the year the foundation was established for a strong growth in sales of Ericsson's digital mobile telephones in the U.S.

There are a large number of players, including

many with local connections, in the market for mobile telephones, while the principal competitors in the systems segment can be easily identified: Alcatel, AT&T, Motorola, NEC, Nokia, Northern Telecom and Siemens.

Ericsson today occupies a top position in digital mobile telephony. It is a world leader in the systems segment. In Europe, the first GSM systems were delivered in the Nordic countries and Germany during June 1991. In the U.S. and Japan, Ericsson's digital TDMA (Time Division Multiple Access) technology scored both technical and commercial successes during the year.

Acceptance of TDMA was enhanced by the new mobile telephones employing this technology that Ericsson introduced at the large "Telecom '91" trade show in Geneva. Sales of these mobile telephones, which function in both digital networks and analog networks based on the American standard, will get under way during 1992.

### *Change of systems in New York*

Despite the fact that 1991 was characterized in large part by the changeover to digital technology, an analog mobile telephone project attracted the greatest interest during the year. This occurred when Ericsson carried out the largest mobile system replacement to date, installing an Ericsson system in place of a competitive system in the Cellular One network serving the New York/New Jersey metropolitan area.

The change of systems yielded immediate favorable results for the customer in the form of sharply improved accessibility, better audibility in the systems, and increased traffic – altogether a considerable improvement in quality.

### *Successes for mobile data and land mobile radio*

Strategically important successes were recorded by Mobitex – Ericsson's system for mobile data communications – and in the field of land mobile radio.

**Geographic distribution of external sales, percent**



**The Business Area in brief**  
*SEK m. and percentage of Ericsson totals*

	1991		1990		1989	
Order bookings, external	12,846	29%	13,335	27%	9,340	22%
Net sales, external	12,276	27%	11,564	25%	8,062	20%
Net sales, internal	95	–	129	–	51	–

During the autumn a preliminary agreement covering Mobitex was reached with the RAM Broadcasting and Bell South companies in the U.S. and final contracts were signed in January 1992. Areas of application for Mobitex were broadened through a number of cooperation agreements involving development of software.

In the land mobile radio sector, Ericsson is focusing increasingly on such customer groups as police departments, fire departments and rescue services. Ericsson's system expertise offers competitive advantages in this "public safety" segment, which imposes strict requirements in terms of rapid connections, accessibility and reliability.

#### *Radio's future as part of advanced telecommunications networks*

Mobility is becoming a key concept in telecommunications of the future. This offers great opportunities for Ericsson, which is currently

working on a number of new applications of radio technology that are also based on the company's know-how in the areas of switching technology and network construction.

The Personal Communications Network (PCN) which will be introduced in Great Britain, among other countries, is one example. This is a service in the public network for light, inexpensive cordless telephones. In connection with the Telecom '91 trade show, Ericsson signed a preliminary agreement to equip the PCN networks being built up by the Mercury Communications and Unitel companies, operators of private telecom systems.

In the field of cellular radio technology, work is also under way on so-called microcell and picocell technologies. These technologies, used in cordless business communications and PCN's, can also increase the capacity of standard cellular networks in densely populated metropolitan areas.



**Ericsson's compactly constructed RS 9000 radio base station can be programmed remotely with the aid of an ordinary personal computer. The station requires only one fourth the space of earlier units, a factor of major importance to customers. The placement of radio base stations is especially costly in densely populated urban areas.**

**Total sales in 1991 amounted to SEK 4,870 m.**

*The Business Area is active in the following product areas:*

**MD110 subscriber exchange**

**Other subscriber exchanges**

**Telephone instruments**

**Data networks**

### *Strong growth in face of sharp pressure on prices*

The MD110 subscriber exchange – principal product of the Business Communications Business Area – held its own well in the market during 1991. In the segment of the market for exchanges handling 100 or more lines, the MD110 is one of the world's leading subscriber exchanges. In all, one million lines of equipment were sold during the year, 10 percent more than a year earlier. The market was, however, characterized by ever-greater pressure on prices. This is not a new situation, but the recession has further intensified the battle for customers.

Sales of Eripax, the Business Area's main product in the data communications field, doubled during the year and this product is now firmly established in markets in more than 20 countries. A number of additional stock exchanges selected Eripax for their financial data networks during 1991.

### *Integrated subscriber networks*

Demand is increasing in the private market for communications approaches that solve a company's total requirements for the handling of voice, data, images and text via its internal telecommunications network. This network must be able to serve the company's entire organization, regardless of where units may be located.

The need for network monitoring systems is also increasing. Ericsson today has the advantage of being able to offer a solution that fully meets market requirements. The NM400 system is designed to handle the operation and maintenance of integrated voice-and-data networks as well as separate networks.

Demand for improved communications facilities linking subscriber exchanges and computers is increasing. As a result, an application of this type for the MD110 exchange was introduced during 1991. Joint ventures are being conducted in this area with a number of international data processing companies.

### *Mobility in subscriber networks*

Ericsson is a leader in providing mobility in subscriber networks. Pending a decision on a DECT (Digital European Cordless Telecommunications) standard, Ericsson has already produced its own DCT900 (Digital Cordless Telephone) system. This system operates in the frequency range of 900 Mhz, while the DECT system, which is expected to be approved during the spring of 1992, uses 1800 Mhz.

The DCT900 system was displayed publicly for the first time at the CeBit trade show in Hannover, Germany, and at "Telecom '91" later in the year. The system is currently being tested

### **Geographic distribution of external sales, percent**



### **The Business Area in brief**

*SEK m. and percentage of Ericsson totals*

	1991		1990		1989	
Order bookings, external	4,763	11%	4,669	10%	4,854	12%
Net sales, external	4,720	10%	4,781	11%	4,912	12%
Net sales, internal	150	–	141	–	194	–

in a large number of countries and frequencies for the technology employed have been assigned in many places.

The DCT900 has been developed as both an independent system and as a radio supplement to Ericsson's subscriber exchanges. It will also function with subscriber exchanges supplied by other manufacturers.

The work of adapting the DCT900 to the future DECT standard is well advanced. As a result, Ericsson is well prepared for the day when DECT opens the entire European market to

the new technology. DCT900 will continue to be an attractive product in the future, notably for markets outside Europe.

#### *Broader line of products*

The Business Area's line of products was broadened during 1991 by the addition of a number of new exchanges in the BusinessPhone family. Many new features have been incorporated in this series of small subscriber exchanges. A new marketing strategy involving increased use of distributors and dealers was introduced during the year.



**Cordless telephones linked to an MD110 subscriber exchange enable their users to move about freely within a company and yet always be reachable by telephone.**

**Total sales in 1991 amounted to SEK 7,022 m.**

*During 1990 the Business Area had operations in the following areas:*

**Cable**

*comprising power cable used for distribution of electricity, telecommunications cable used for the transmission of telecommunications, and special cable.*

**Network construction including planning and installation of telecommunications and data networks, and telecom plants.**

**Reshaping of market favors Cable and Network**

The Cable and Network Business Area will continue to play a very significant role in generating new orders for Ericsson. This is because telecom operators are devoting ever-increasing attention to their networks. Reliable and efficient networks are one of the foremost competitive weapons in the battle for telecommunications customers of the future.

Order bookings for Cable and Network rose by 2 percent. Network operations increased a full 29 percent.

In the wake of deregulation, many new operators who need network construction services are making their appearance. At the same time, the traditional operators are contracting out a larger part of their network construction projects. These changes in the market fit in well with the Business Area's concept and strategy.

There is also a trend for telecom operators to concentrate more and more on their primary task, the sale of telecommunications services. New operators in a country are generally in a hurry to start up and, as a rule, they lack in-house expertise in network construction.

Meanwhile, network construction technology is marked by increasing complexity and by accelerating technical development. This provides expanded opportunities for Ericsson, whose operations are based on broad knowledge spanning the entire field of communications.

A basic strategy for Network operations, implemented in cooperation with other Ericsson units, is to offer customers turnkey telecommunications networks. This strategy is creating substantial business opportunities for large parts of the company.

**Today's competitive situation**

Cable and Network currently has operations in many of the company's major markets. Ericsson faces competition from both local companies and firms with large international operations.

In the cable sector, three of Ericsson's competitors – Alcatel, BICC and Pirelli – have truly large international operations. AT&T, Nokia/ NKF, Siemens and Sumitomo also have substantial cable operations.

The market in the Network sector is characterized by the traditional telecom operators' own expertise and operations in the field and by mixtures of local companies and large international players. A number of the major cable suppliers are also active in network construction. Ericsson competes successfully with these companies and its objective is to further strengthen its position in the network construction field.

**Investment in competence**

Cable and Network's primary competitive edge is its access to Ericsson's competence in the fields of switching, radio and network engineering and construction. An advanced position in fiber technology, which is playing an increasingly larger role in telecommunications network construction, should also be noted. In 1991, to strengthen this position, Ericsson established a research center for fiber optics in Stockholm.

Ericsson's fusion splicers for optical cables are a good example of a successful technical innovation. They are now sold throughout the world and are also used by competitors not only to splice fibers in the field but also in connection with the production of fiber optical cable. These fusion splicers are now also being refined to handle ribbon cable.

**Geographic distribution of external sales, percent**



**The Business Area in brief**

*SEK m. and percentage of Ericsson totals*

	1991		1990		1989	
Order bookings, external	7,788	17%	7,619	15%	5,759	14%
Nets sales, external	6,506	14%	6,484	14%	5,220	13%
Net sales, internal	516	–	311	–	245	–

**Ericsson uses its own computer-based systems for efficient planning and engineering of public and private communications networks.**



Ericsson is one of the leading producers of this new type of fiber optical cable in Europe.

A project support center for development of new technologies and methods in network construction was established during the year. The objective is to utilize effective solutions to net-

work construction problems so that they can be reproduced in later projects. The services and cost-effective solutions offered are constantly being refined, largely in close cooperation with other Business Areas.

**Total sales in 1991 amounted to SEK 2,214 m.**

*The Business Area manufactures and markets electronic components, including fiber optical components, and power supply equipment, with emphasis on applications in telecommunications. Standard components are sold in certain markets on agency basis. Operations comprise the following product areas:*

**Microelectronics, including fiber optical components**

**Power supply equipment and cooling systems**

**Standard components**

***Systems in microformats are revolutionizing production***

Ericsson's main strategy is to have its own expertise for the design of components used in its core systems. The Components Business Area coordinates the selection of appropriate technologies for products needed by the Group. Since development programs in the field of microelectronics place heavy demands on resources, Ericsson works with other companies and purchases design aids from outside sources, for example.

Semiconductor technology, the most important technical area for Components, is on the threshold of major changes. Research in this field was intensified during 1991. Design and manufacturing resources are now being built up to handle the next generation of silicon chips.

***Miniaturization and system build-up***

Circuits currently being manufactured contain tens of thousands of transistors. During 1991 preparations were started for utilizing technologies in which the smallest parts of transistors are less than 0.5 micrometers, compared with 1.2 micrometers today. Design systems and production facilities employing the new technologies will be available within a few years.

The narrow line widths will make it possible to position several million transistors on a single silicon chip. The plan is to build many functions into the circuits so that complete systems can be designed directly on silicon. A complete AXE exchange will then consist of a few extremely sophisticated circuits. The small pocket telephones in which similar products are now being used are another example of the application of this technology.

The technique of assembling many semiconductor chips on a single carrier is becoming increasingly important. In this field, the Components Business Area has long possessed knowledge that is being utilized in Ericsson's power

supply products, among other applications.

Miniaturization has also taken a step forward in the field of optotechnology. So-called laser diode technology is now being used to construct integrated circuits for photons (optical transmission). An integrated unit for optical switching was displayed for the industry during the year.

***Increased demand for expertise***

Production of the new generation of microelectronics will require very advanced equipment and employees with levels of expertise higher even than today's. The Components Business Area is increasingly becoming a knowledge company.

To handle future demands on products and services, the Business Area's quality assurance system has been improved. Design work was expanded during 1991 with the addition of a new development center in Swindon, England.

***Power supply sector strengthened***

The range of products in the power supply sector was expanded during 1991. Newly adapted systems for digital cross-connections (DXC) were delivered and key steps were taken to enter such important markets as France, Germany and the U.S.

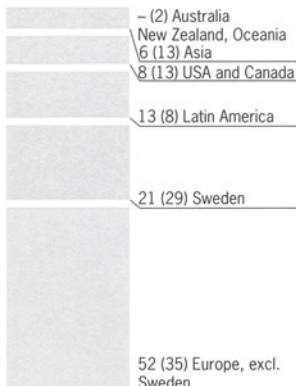
Microelectronics are also becoming increasingly important in the power supply field. Microcircuits will be used to a much greater extent than before in the next generation of power products.

***New circuits in production***

The Business Area completed its development of circuits for Ericsson's new line interface card used in AXE switches. The new circuits can be programmed so that a single type can meet the requirements of many different markets.

Production of transistor chips for 900 Mhz power-output modules for radio base stations was started during the year. Prototypes for 1800 Mhz modules were developed.

**Geographic distribution of external sales, percent**



**The Business Area in brief**

*SEK m. and percentage of Ericsson totals*

	1991		1990		1989	
Order bookings, external	700	2%	491	1%	733	2%
Net sales, external	985	2%	589	1%	716	2%
Net sales, internal	1,229	-	1,316	-	1,267	-

**Increased interest in advanced defense technology**

As a result of the trend of world politics during 1991, the high outlays for defense purposes were questioned in many countries. Meanwhile, investments are being made in more advanced technologies. Defense electronics is a high-growth field, offering Ericsson good opportunities for favorable growth in its defense sector. This, combined with successes in commercial production – which currently accounts for approximately 25 percent of total operations – provides good possibilities for ending the recent years' stagnation in Defense Systems' sales.

**Airborne early-warning radar**

There were a number of favorable events in the radar field during 1991. The Swedish Defense Forces placed an order for continuing development of the PS 890 (Erieye) system, an airborne early-warning radar. Successful test flights with a prototype were conducted during the year. This type of radar has attracted substantial international attention, since it makes available to small and medium-size countries an early-warning technology previously reserved to the super-powers.

A new version of Ericsson's Giraffe search radar was sold to the Ministry of Defense in Finland, where it will be used as air defense radar with a longer range than was available earlier.

During the year the Swedish JAS 39 Gripen multirole combat aircraft completed a successful test program which demonstrated that the aircraft offers better performance than was demanded in its specifications. Ericsson's share of this project includes radar, display system, systems computer and certain electronic countermeasure equipment.

**Microwave radio links in new networks**

The Business Area's principal commercial product is a series of Mini-Link microwave radio links that have been sold in many markets since the

early 1980's. Deregulation and privatization of the telecommunications market is now spurring demand for products of this type.

There is very substantial interest in microwave technology in countries where a second – and perhaps also a third – party has been designated to operate a fixed-line or mobile telephone network. This technology can be used, for example, to build new telecommunications networks linking radio base stations. Instead of costly leasing of lines in the existing network – which, moreover, is generally managed by its main competitor – a new operating company can quickly build up its own infrastructure. The pay-back period for such investments is short, ranging from several months to a year, depending on the pricing policy applied in the existing network.

More than 2,000 Mini-Link systems were produced in the Business Area's plant in Borås, Sweden, during 1991. New models are now being brought out, broadening the range of products in a market that can continue to grow in coming years. The expansion of so-called PCN networks for personal telephony is creating new areas of application for Mini-Link.

In addition to Ericsson, a number of competitors are active in the microwave field. Alcatel, AT&T, Siemens and NEC all hold interests in microwave companies.

**A knowledge resource**

The Defense Systems Business Area commands unique expertise in signal processing and microwave technology. Experience from earlier operations in these fields is today of great value in many of Ericsson's development projects.

The development of radio base stations for the new Japanese digital standard is one of the projects in which Defense Systems is currently cooperating with the Radio Communications Business Area. A project is under way with Ericsson Telecom to develop new electronics for use in high-speed transmission systems.

**Total sales in 1991 amounted to SEK 1,825 m.**

*Operations of the Business Area were conducted in three different product areas during the year:*

**Avionics and airborne electronics**

**Mobile defense systems**

**Microwave and satellite communications**

**The Business Area in brief**

*SEK m. and percentage of Ericsson totals*

	1991		1990		1989	
Order bookings, external	1,545	3%	1,573	3%	3,814	9%
Net sales, external	1,611	4%	1,758	4%	3,252	8%
Net sales, internal	214	–	132	–	142	–

**Geographic distribution of external sales, percent**





**Capital stock**

The capital stock of the Parent Company, Telefonaktiebolaget LM Ericsson, amounted at December 31, 1991 to SEK 2,059,864,550, represented by 205,986,455 shares, each with a par value of SEK 10. Of the total number of shares outstanding, 12,398,420 are restricted A shares and 6,244,155 are unrestricted A shares, each carrying one vote, and 187,343,880 are unrestricted B shares, each carrying one thousandth of a vote.

The Articles of Association of the Parent Company stipulate that not more than 35 percent of the voting rights in the company may be represented by unrestricted shares, which may be owned by foreign citizens as well as citizens of Sweden. At year-end 1991, the maximum voting rights accruing to unrestricted shares amounted to 34.2 percent of the total voting rights and the actual voting rights of foreign-owned unrestricted shares represented 0.3 percent of the total.

During 1991 the number of shares increased by 257,372 through conversion of debentures. During the period between January 1 and February 15, 1992 additional debentures were converted to 4,775 B shares, increasing to 205,991,230 the total number of shares entitled to dividends as of the record date.

**Employee ownership of Ericsson shares**

Ericsson employees are able to purchase the company's shares via bank loans arranged by the company. Since 1973, slightly more than 6,700 employees have taken advantage of this opportunity, purchasing a total of approximately 2.4 million shares.

Ericsson's Share Savings Fund was started in 1981, and Ericsson's General Savings Fund in 1984. There are 1,430 participants in the Share Savings Fund and 2,429 in the General Savings Fund. The funds have invested in Ericsson shares and in Ericsson's convertible debenture certificates. At year-end, combined holdings of the

two funds amounted to 393,500 shares, or approximately 0.2 percent of the total number of shares, and the funds held debentures convertible to 394,250 shares.

The debenture certificates may be converted to B shares up to and including March 15, 1993. To date, SEK 42.1 m. of the SEK 626.4 m. loan has been converted to 795,299 B shares. Slightly more than 10,000 Ericsson employees hold Company debentures.

**Stock exchange trading**

LM Ericsson A and B shares are listed on the Stockholm Stock Exchange. The B shares are listed on the exchanges in Basel, Düsseldorf, Frankfurt am Main, Geneva, Hamburg, London, Oslo, Paris and Zürich and are also traded in the U.S. in the form of ADR's (American Depository Receipts) via the NASDAQ electronic quotation system.

Each ADR represents one B share. The most active trading occurs in Stockholm, London and New York.

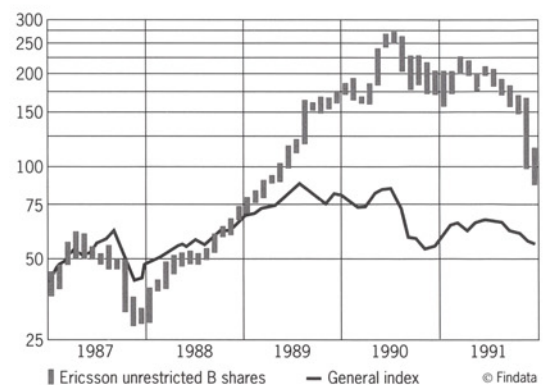
Approximately 264 million shares were traded during 1991. The turnover was distributed as follows (approximate percentages): 43 percent on the London Stock Exchange, 31 percent on NASDAQ, 25 percent on the Stockholm Stock Exchange, and one percent on other exchanges.

**Stockholders**

Dominant interest is shared by the so-called Svenska Handelsbanken interests, with 42.9 percent of the voting rights, and the Wallenberg and Skandinaviska Enskilda Banken interests, with 41.8 percent.

Approximately 75 percent of Ericsson's shares are owned by institutions in Sweden and other countries.

At year-end 1991, about 25 percent of the company's shares were held by stockholders outside Sweden.

**Trading on the Stockholm Stock Exchange**

<i>Share data</i>	1991	1990*	1989	1988	1987
Exports of shares from Sweden (SEK m.)	2,310	777	499	585	401
Imports of shares to Sweden (SEK m.)	1,218	1,873	1,384	635	1,233
Net imports of shares to Sweden	1,092	1,096	885	50	832
P/E ratio I, "B" shares 1)	29.3	12.0	15.1	13.6	8.5
P/E ratio II, "B" shares 2)	25.1	12.4	16.4	11.8	7.9
Share prices, December 31, Stockholm Stock Exchange (SEK)					
– "A" restricted	140	245	1,000	470	300
– "A" unrestricted	145	245	950	470	300
– "B" unrestricted	108	184	880	368	153
– "B" unrestricted High for year	225	280	940	369	304
– "B" unrestricted Low for year	88.5	175	356	155	149

<sup>1)</sup> P/E ratio I = Price per share divided by profit per share after actual taxes paid.

<sup>2)</sup> P/E ratio II = Price per share divided by profit per share after actual and estimated deferred taxes.

\* After 5-for-1 stock split

<i>Changes in capital stock</i>		<i>Number of shares</i>	<i>Capital stock</i>
1976	January 1	15,380,117	769,005,850
	1-for-4 stock dividend	3,845,029	192,251,450
	1-for-6 new issue, SEK 75	2,563,352	128,167,600
1982	1-for-2 stock dividend	10,894,248	544,712,400
1983	Special new issue, USD 62.5	4,000,000	200,000,000
	Conversions	181,677	9,083,850
1984	Conversions	39,049	1,952,450
1985	Conversions	47,789	2,389,450
1986	Conversions	1,211,121	60,556,050
1988	Conversions	52,242	2,612,100
1989	Conversions	2,760,310	138,015,500
1990	Conversions	854,413	8,544,130
1990	5-for-1 stock split	163,899,736	–
1991	Conversions	257,372	2,573,720
1991	December 31	205,986,455	2,059,864,550

<i>Distribution of shares, year-end 1991</i>		<i>Stockholders</i>		<i>Number of shares</i>		<i>Number of shares/stockholder</i>
<i>Stockholder's holding</i>	<i>Number</i>	<i>%</i>	<i>of shares</i>	<i>%</i>		
1 – 500	78,761	78,5	12,947,430	6,3		164
501 – 5 000	19,909	19,8	28,333,463	13,8		1,423
5 001 – 20 000	1,245	1,2	12,148,987	5,9		9,758
20 000 –	483	0,5	152,556,575	74,0		315,852
	100,398	100,0	205,986,455	100,0		2,051

*The largest stockholders, ranked by voting rights, were as follows at December 31, 1991*

	<i>Number of shares</i>	<i>Voting rights percent</i>
AB Industrivärden	6,459 035	26.5
Knut och Alice Wallenbergs stiftelse	2,651 480	14.0
AB Investor	1,970 000	10.4
Oktagonen, Stiftelsen	1,310 000	5.9
Svenska Handelsbankens Pensionsstiftelse	116 000	5.6
Livförsäkrings AB Skandia	7,467 240	3.8
Pensionskassan SHB Försäkringsförening	90 000	3.1
EB-stiftelsen, SE Bankens Pensionsstiftelse	508 440	2.6
Wallanders o Hedelius' stiftelse	450 000	2.4
Wallenbergs stiftelse, Marianne och Marcus	450 000	2.3
Svenska Handelsbankens personalstiftelse	280 000	1.5

*Björn Svedberg  
Peter Wallenberg  
Lars Ramqvist  
Tom Hedelius*



*Sverker Martin-Löf  
Göthe Söderkvist  
Georg Karnsund  
Per Lundberg  
Jan Stenberg*



*Carl Wilhelm Ros  
Carl-Erik Feinsilber  
Jacob Wallenberg  
Thomas Olsson  
Stanley Oscarsson*



*Claes-Göran Larsson  
Sven Olving  
Sune Andersson  
Anders Olofsson  
Sven Ågrup*



## Board of Directors Members

### **Björn Svedberg** (1937\*)

Chairman, Honorary Doctor of Technology, Chairman of the Boards of MoDo and Industrigruppen JAS. Member of the Boards of ABB, AGA and Saab-Scania. Chairman of the Royal Swedish Academy of Sciences. Member since 1977. Shares held: B 3,755. Convertible debentures: 14,250.\*\*

### **Peter Wallenberg** (1926\*)

Deputy Chairman. Honorary Doctor of Economics, First Vice Chairman of the Board of Skandinaviska Enskilda Banken. Chairman of the Boards of ASEA, Atlas Copco, Investor, Providentia and STORA. Deputy Chairman of Electrolux, Incentive and SKF. Co-Chairman of ABB Ltd. Member since 1972. Shares held: B 28,175.

### **Tom Hedelius** (1939\*)

Deputy Chairman. Chairman of the Board of Handelsbanken. Member of the Boards of AGA, Industrivärden and SCA. Member since 1991. Shares held: B 2,000.

### **Lars Ramqvist** (1938\*)

President and Chief Executive Officer. Doctor of Philosophy. President and member since 1990. Shares held: B 135. Convertible debentures: 21,625.\*\*

### **Sune Andersson** (1936\*)

Employee representative. Member since 1990. Shares held: B 2,030. Convertible debentures: 625.\*\*

### **Carl-Erik Feinsilber** (1931\*)

President and CEO of Industrivärden. Member of the Boards of AGA, Handelsbanken and SCA. Member since 1990.

### **Georg Karnsund** (1933\*)

Chairman of the Boards of the Swedish Highways Administration and the Swedish National Traffic Safety Board. Member of the Boards of Saab-Scania and Atlas Copco. Member since 1987.

### **Claes-Göran Larsson** (1954\*)

Employee representative. Member since 1988.

### **Per Lundberg** (1943\*)

President of Providentia and First Vice President of Investor. Chairman of the Boards of LM Ericsson Finance, Nordben Life and Pension Insurance Co. Ltd., Nordisk Television/TV4 and Stockholm-Saltsjön. Member of the Boards of Atlas Copco, Saab-Scania and Trygg-Hansa SPP Holding. Member since 1990. Shares held: B 500.

### **Sven Olving** (1928\*)

Doctor of Science, Professor of Chalmers University of Technology. Chairman of the Board of Volvofinans. Member of the Boards of Electrolux and Trelleborg. Member since 1980.

### **Stanley Oscarsson** (1927\*)

Employee representative. Member since 1987.

### **Sven Ågrup** (1930\*)

Chairman of the Board of AGA. Member of the Boards of Handelsbanken, Sandvik and Volvo. Member since 1983.

**Sverker Martin-Löf**  
(1943\*)  
President and CEO of SCA. Member of the Boards of AGA and MoDo. Member since 1991.

**Anders Olofsson**  
(1953\*)  
Employee representative. Member since 1990.

**Thomas Olsson**  
(1944\*)  
Employee representative. Member since 1985. Shares held: B 380.

**Carl Wilhelm Ros**  
(1941\*)  
Executive Vice President. Member since 1986. Shares held: B 5,030. Convertible debentures: 5,000.\*\*

**Jan Stenberg**  
(1939\*)  
Executive Vice President. Member since 1982. Shares held: A 20, B 6,645.

**Göthe Söderkvist**  
(1945\*)  
Employee representative. Member since 1989. Shares held: A 70, B 5. Conv. deb.: 375.\*\*

**Jacob Wallenberg**  
(1956\*)  
Vice President of Investor and Providentia Chairman of the Board of Investor Group Finance. Member of the Boards of Atlas Copco, Investor and STORA. Member since 1991. Shares held: A 750, B 1,000.

## Board of Directors Deputy Members

**Lars Ramqvist**  
President and Chief Executive Officer Telefonaktiebolaget LM Ericsson.

**Carl Wilhelm Ros**  
Executive Vice President and Chief Financial Officer.

**Jan Stenberg**  
Executive Vice President.



## Corporate Executive Committee

Carl Wilhelm Ros  
Lars Ramqvist  
Jan Stenberg

**Stephan Almqvist**  
Senior Vice President, Corporate Treasury.

**Karl Alsmar**  
Senior Vice President, Corporate Product Management.

**Erling Blommé**  
Senior Vice President and General Counsel, Corporate Legal Affairs.

**Bo Hedfors**  
Senior Vice President, Corporate Systems and Technology.

**Harry Johansson**  
Senior Vice President, Corporate Audit and Security.

**Bo Landin**  
Senior Vice President, Corporate Markets.

**Nils Ingvar Lundin**  
Senior Vice President, Corporate Relations.

**Britt Reigo**  
Senior Vice President, Corporate Human Resources and Organization.

**Johan Siberg**  
Senior Vice President, Corporate Supply and Distribution.

**Åke Stavling**  
Senior Vice President, Corporate Financial Control.

## Corporate Functions

**Lars Berg**  
Senior Vice President, Cable and Network. President, Ericsson Cables AB and Ericsson Network Engineering AB.

**Bengt Halse**  
Senior Vice President, Defense Systems. President, Ericsson Radar Electronics AB.

**Kurt Hellström**  
Senior Vice President, Radio Communications. President, Ericsson Radio Systems AB.

**Håkan Jansson**  
Senior Vice President, Public Telecommunications. President, Ericsson Telecom AB.

**Bert Jeppsson**  
Senior Vice President, Components. President, Ericsson Components AB.

**Ronny Lejdemalm**  
Senior Vice President, Business Communications. President, Ericsson Business Communications AB.

**Åke Lundqvist**  
Senior Vice President, Radio Communications. President, Ericsson GE Mobile Communications Holding Inc.

## Business Areas

### Statutory Auditors

**Olof Herolf**  
Authorized Public Accountant, Price Waterhouse.

**Nils-Axel Frisk**  
Former Executive Vice President (Finance), Swedish Staff Pension Fund.

**Carl-Eric Boblin**  
Authorized Public Accountant, Price Waterhouse.

### Deputy Auditors

**Stephan Tolstoy**  
Authorized Public Accountant, Price Waterhouse.

**Krister Hertzen**  
President, Swedish Staff Pension Fund. Vice Chairman Trygg-Hansa SPP Holding.

**Lars Eklund**  
Authorized Public Accountant, Price Waterhouse.

### Auditors

\* Year of birth. \*\* Each convertible corresponds to one "B" share.

*Parent Company, Subsidiaries, Associated Companies, Regional and Technical Offices***Algeria**

*Telefonaktiebolaget  
LM Ericsson*  
Bureaux Techniques  
d'Algérie  
El Djazair  
Hugo Agnvall  
*SITEL – Société Industrielle  
Algérienne  
de Télécommunications*  
Tlemcen  
Ibrahim Bensmail

**Argentina**

*Compañía Argentina  
de Teléfonos S.A.*  
Buenos Aires  
Stig Johansson  
*Compañía Ericsson  
S.A.C.I.*  
Buenos Aires  
Eduardo Restuccia

**Australia**

*Ericsson Australia Pty. Ltd.*  
Broadmeadows  
Kjell Sörme  
*Ericsson  
Defense Systems Pty. Ltd.*  
Preston  
Ivan Trayling  
*Nira Australia Pty. Ltd.*  
Sydney  
Brian Fitzgerald

**Austria**

*Schrack Elektronik AG*  
Wien  
Manfred Buchmayer

**Bahrain**

*Telefon AB LM Ericsson*  
Regional Representative  
Office  
Jidhafs  
Anders Snare

**Belgium**

*Ericsson Business  
Communications NV/SA*  
Brussels  
Göran Schlyter  
*Ericsson European Support  
Centre SNC/VOF*  
Brussels  
Jos Marien  
*Nira Communication  
Systems N.V.*  
Ternat

**Brazil**

*Ericsson Amazonia S.A.*  
Manáus  
Geraldo Cavalcanti  
*Ericsson  
Telecomunicacoes S.A.*  
São Paulo  
Geraldo Cavalcanti  
*Fios e Cabos Plásticos  
do Brasil S.A.*  
Rio de Janeiro  
M. Horacio F. da Silva

**Canada**

*Ericsson GE Mobile  
Communications  
Canada Inc.*  
Toronto  
Bernt Högberg  
*Ericsson  
Communications Inc.*  
Montreal  
Lionel P. Hurtubise

**Chile**

*Compañía Ericsson  
de Chile S.A.*  
Santiago  
Ignacio Guevara

**China,  
People's Republic of**

*Telefonaktiebolaget  
LM Ericsson*  
Representative Office  
Beijing  
Hans Ekström

**Colombia**

*Ericsson de Colombia S.A.*  
Bogotá  
Hector Perez  
*FACOMECA S.A.*  
Cali  
Arvid Jauring

**Costa Rica**

*Ericsson de Costa Rica S.A.*  
San José  
Alejandro Guerrero

**Denmark**

*LM Ericsson A/S*  
Brøndby  
Kaj Juul Pedersen  
*Ericsson Radio Systems A/S*  
Tåstrup  
Henrik Abildtrup

**DIAX**

*Telecommunications A/S*  
Struer  
Björn Olsson

**Ecuador**

*Teléfonos Ericsson C.A.*  
Quito  
Björn Magnusson

**Egypt**

*Telefonaktiebolaget  
LM Ericsson*  
Egypt Branch  
Cairo  
Staffan Hult

**El Salvador**

*Telefonaktiebolaget  
LM Ericsson*  
Sucursal El Salvador  
San Salvador  
Jorge Guevara

**Finland**

*Oy LM Ericsson Ab*  
Jorvas  
Jan-Mikael von Schantz  
*Oy Ericsson  
Radiopubelin Ab*  
Helsingfors  
Robert Serén

**France**

*Ericsson Components  
Europe S.A.*  
Guyancourt  
Gilles Pichon  
*MET S.A.*  
Massy  
Jacques Payer/Lars Jarnryd  
*Nira S.A.*  
Nanterre  
Jacques François

**Germany**

*Ericsson Business  
Communications GmbH*  
Düsseldorf  
Heinrich Thanscheidt  
*Ericsson Eurolab  
Deutschland GmbH*  
Herzogenrath  
Jarl-Eric Nylund  
*Ericsson Holding  
Deutschland GmbH*  
Düsseldorf  
Jan Stenberg

*Ericsson Mobilfunk GmbH*  
Düsseldorf  
Hans Uhlemann

*Ericsson Paging  
Systems GmbH*  
Frankfurt  
Manfred Wiegand

*Ericsson Telekom GmbH*  
Neu-Isenburg  
Kjell Nilsson

*Nira Deutschland  
Zwegniederlassung der Nira  
International BV*  
Düsseldorf  
Fritz Schlichtenberger

**Greece**

*Ericsson (Hellas)  
Telecommunications  
Equipment S.A.*  
Athens  
Per Granqvist

**Guatemala**

*Ericsson de Guatemala S.A.*  
Guatemala City  
Ignacio Gonzales

**Hong Kong**

*Ericsson Communications  
(Hong Kong) Ltd.*  
Hong Kong  
Rolf Granström

**Hungary**

*Ericsson Technika K.f.t.*  
Budapest  
Istvan Fodor  
*LM Ericsson  
International AB*  
Budapest  
Ulf Sandberg

**India**

*Ericsson India Ltd.*  
New Delhi  
Dr. R.K. Bhargava  
*LM Ericsson  
International AB*  
Liaison Office  
New Delhi  
Hans Karlsson

**Iran**

*Simco Ericsson Ltd.*  
Teheran  
Parviz Hourfar





#### **Ireland**

*Ericsson Business Communications Ltd.*  
Dublin  
John L. Kennedy

*Ericsson Systems Expertise Ltd.*  
Athlone  
Diarmuid O'Colmain

*LM Ericsson Holdings Ltd.*  
Dublin  
Vincent Daly

*LM Ericsson Ltd.*  
Dublin  
Ian Cahill

*Broadcom Eirann Research Ltd.*  
Dublin  
Joseph Dwyer

#### **Italy**

*CESI Centro Elaborazioni e Studi Informatici S.p.A.*  
Rome  
Maurizio Marcovaldi

*Ericsson Fatme S.p.A.*  
Rome  
Giovanni De Guzzis

*Ericsson Sielte S.p.A.*  
Rome  
Gianluigi Molinari

*Ericsson S.p.A.*  
Rome  
Gian Luigi Tosato

*ERISUD S.p.A.*  
Pagani  
Gian Luigi Tosato

*Ericsson Trasmissioni S.p.A.*  
Sulmona  
Francesco Saverio Damato

*Ericsson Sielte International S.p.A.*  
Rome  
Jan Sjöberg

*EL. TE Siciliana S.p.A.*  
Palermo  
Domenico Ferrara

*Sielte Datanet S.p.A.*  
Trieste  
Pierluigi Marzullo

*Sielte Padana S.p.A.*  
Torino  
Ferdinando Raveggi

*Sielte Engineering S.p.A.*  
Rome  
Giacomo Caruso

*TEL. CA. S.p.A.*  
Cosenza  
Gianluigi Molinari

*Unical S.p.A.*  
Cosenza  
Orazio Magi

#### **Japan**

*Nippon Ericsson KK*  
Tokyo  
Morgan Bengtsson

#### **Korea, Republic of**

*Ericsson Korea Ltd.*  
Seoul  
Lennart Aldestam

#### **Kuwait**

*Telefonaktiebolaget LM Ericsson*  
Technical Office Kuwait  
Safat

**Libya**

*Telefonaktiebolaget  
LM Ericsson*  
Libya Branch  
Tripoli  
Håkan Kastlander

**Luxembourg**

*Ericsson Reinsurance S.A.*  
Luxembourg  
Peter Flensburg

**Malaysia**

*Ericsson Telecommunica-  
tions Sdn Bhd*  
Shah Alam, Selangor  
Bengt Linder

*Perwira Ericsson Sdn Bhd*  
Shah Alam, Selangor  
Kamaludin Encik Abdul  
Kadir

**Mauritius**

*Ericsson Network  
Engineering AB*  
(Mauritius Branch)  
Port Louis  
Jan Eckerud

**Mexico**

*Conductores Latincasa  
S.A. de C.V.*  
Mexico, D.F.  
Gerhard Skladal

*Empresa Tecnológica  
Ericsson S.A. de C.V.*  
Mexico, D.E.  
Lars Wahlgren

*Sistemas Ericsson S.A.*  
Mexico, D.E.  
Rolando Zubirán

*Telemontaje Ericsson  
S.A. de C.V.*  
Mexico, D.F.  
Roberto Rosales

*Teleindustria  
Ericsson S.A.*  
Mexico D.F.  
Gerhard Weise

**Morocco**

*Telefonaktiebolaget  
LM Ericsson*  
Délégation Technique du  
Projet au Maroc  
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Gunnar Håkansson

**Netherlands**

*Ericsson*  
*Telecommunicatie B.V.*  
Rijen  
Bengt Kellgren

*Ericsson Holding  
International B.V.*  
Rijen  
Leo de Hoon

*Ericsson Business Mobile  
Networks B.V.*  
Amsterdam  
Colin Buckingham

*Ericsson Radio Systems B.V.*  
Emmen  
Gerrit Koning  
*Nira Nederland B.V.*  
Utrecht  
Chris Berger

*Nira International B.V.*  
Amsterdam  
Dick Sougé

*Ericsson Data Services  
Nederland B.V.*  
Rijen  
Lars Löfdahl

**Netherlands Antilles**

*Telefonaktiebolaget  
LM Ericsson*  
Technical Office  
Curacao  
Carlos Javier Cué

**New Zealand**

*Cellphone Sales Ltd.*  
Auckland  
Torbjörn Smith

*Ericsson  
Communications Ltd.*  
Wellington  
John Gilbertson

**Nigeria**

*LM Ericsson (Nigeria) Ltd.*  
Lagos  
Lars H. Christofferson

**Norway**

*NFT Ericsson  
Communications ANS*  
Billingstadsletta  
Per Skard

*Ericsson Business  
Communications A/S*  
Nesbru  
Hans Lillebye

*Ericsson Components A/S*  
Oslo  
Janåke Viklund

*Ericsson Radiosystemer A/S*  
Nesbru  
Bernt Christiansen

*Ericsson Telecom A/S*  
Billingstadsletta  
Steinar Tveit

*Forslid A/S*  
Oslo  
Bo Berndtsson

*Ericsson Radar A/S*  
Halden  
Knut Trovaag

*Semafor A/S*  
Kolbojernsvik  
Fredrik Major

**Oman**

*Telefonaktiebolaget  
LM Ericsson*  
Technical Office Oman  
Muscat  
Sune Larsson

**Pakistan**

*Ericsson Telecom AB*  
Technical Office  
Islamabad  
Lars-Åke Andersson

**Panama**

*Telefonaktiebolaget  
LM Ericsson*  
Technical Office  
Panama  
Daniel Holder

**Peru**

*Compañía Ericsson S.A.*  
Lima  
Julien Sideris

**Philippines**

*Ericsson Networks  
Philippines*  
Manila  
Per Pedersen

*Philnet Ericsson Inc.*  
Manila  
Per Pedersen

**Portugal**

*Sociedade Ericsson  
de Portugal Lda*  
Linda-a-Velha/Lisbon  
Bengt Fors

**Saudi Arabia**

*Telefonaktiebolaget  
LM Ericsson*  
Saudi Arabia Branch  
Riyadh  
Anders Töpffer

**Singapore**

*Ericsson Network  
Engineering Pte. Ltd.*  
Singapore  
Ulf H Johansson

**Spain**

*Fibroco S.A.*  
Barcelona  
Bo Gustafsson

*Ericsson S.A.*  
Leganes (Madrid)  
Raimo Lindgren

*Ericsson Redes S.A.*  
Madrid  
Román de los Mártirez

*Ericsson Sistemas  
Avanzados S.A.*  
Madrid  
Ingemar Naeve

*Ericsson Terminales  
Moviles S.A.*  
Madrid  
Fernando Carraminana

*Constel S.A.*  
Burgos  
Jesús de Román

**Sweden**

*Telefonaktiebolaget*  
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*Erisoft AB*  
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 – Lynchburg, VA.  
 George Fath  
 – Raleigh, NC.  
 Olle Ulvenholm

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*Ericsson Radio Systems Inc.*  
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*Sistemas Ericsson C.A.*  
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*This glossary has been prepared to broaden the understanding of the terms used in this Annual Report. Brief definitions of such terms cannot, however, provide complete explanations.*

#### **Bell companies**

In 1984, the telephone operations of AT&T (American Telephone & Telegraph) in the U.S. were restructured. Local telephone traffic was divided into seven regions, each administered by an independent Bell company.

#### **BITS credits**

BITS is the Swedish acronym for the Agency for International Technical and Economic Cooperation that grants loans on advantageous terms for projects in developing countries.

#### **Cellular mobile telephone system**

A mobile telephone system consisting of radio base stations linked by telephone exchanges. Each base station covers a geographical area, a "cell." When a subscriber moves within the area covered by a cellular mobile telephone system, the telephone call is transferred automatically from cell to cell. See also Microcell and Picocell.

#### **DECT**

DECT (Digital European Cordless Telecommunications) is a common European standard for cordless personal telephony adopted by ETSI, a European standardization organization for telecommunications technology. The DECT standard will provide the guiding norm for development of systems for cordless business communications.

#### **Digital technology**

Handling of information that has been converted to a digital code using the binary number notation system consisting only of ones and zeros. Conversion to and from continuous signals occurs in special converter circuits, encoders and decoders.

#### **DXC**

Digital Cross Connect. An exchange for cross-connections in a fiber-optical network. A DXC can automatically reroute telecommunications traffic to handle peak loads or isolate breaks in parts of the network.

#### **ETNA**

Ericsson Transport Network Architecture is a collection of systems and products used to build transport networks based on Ericsson's latest technology for fiber-optical transmission and signal handling. ETNA includes systems for supervision and operation of transport networks.

#### **ETSI**

European Telecommunications Standards Institute is a standardization body established and supported by the EC Commission. ETSI is unique in that manufacturers of telecommunications equipment as well as operating companies are members of a common standardization body.

#### **Fiber optics**

A technique for transmitting light signals via glass or plastic fibers. Fiber optical cables are used to transmit digital signals representing voice, images or data. The light source is often a laser. Fibers permit high transmission capacity.

#### **FMAS**

Facility Management Application System. One of the operating systems in TMOS (See below). Among other functions, FMAS handles administration and control of the transport network and makes it possible for the network operator to meet increasing demands for leased lines.

#### **GSM**

Global System for Mobile Telecommunications. Developed initially as the pan-European standard for digital cellular mobile telephone systems, it has now been accepted in many parts of the world, mainly in Southeast Asia and Australia.

#### **Ibercom**

A Spanish telecommunications network equipped with Ericsson's MD110 subscriber exchanges. Ibercom offers small and medium-size companies the opportunity to utilize the various possibilities of an advanced subscriber exchange via the public network.

#### **Land-mobile radio**

Traditional mobile radio communications used by trucking firms, police and rescue services, etc., in which each system has its own radio base station.

#### **Megabit/s (Mbps)**

A measurement of the transmission capacity of, for example, a transmission line. A capacity of one Mbps is adequate to transmit more than 14 telephone calls simultaneously.

#### **Microcells**

A technique in cellular mobile telephony in which the size of the cells are reduced to cope with difficult reception conditions—for example, in densely populated urban areas—and to increase system capacity.

#### **Microwave technology**

The technology of generating, processing and transmitting signals by means of radio in the frequency range of 1,000 to 25,000 MHz. The technology is applied in radar and telecommunications via radio links and satellite systems.

#### **Mobile data**

Application of radio technology for data communications between, for example, a company's data base and mobile terminals.

#### **Mobitex**

A system for mobile data communications developed by Ericsson for a broad application area. Mobitex uses a technology that facilitates transfer of large amounts of data in a short time and with high reliability.

#### **NMAS**

Network Management Application System. An operating support system for supervision of a telecommunications net-

work and its traffic. NMAS signals an alarm and generates a fault message when something goes wrong. NMAS is part of the TMOS family.

#### **Picocells**

To achieve a high level of performance in a cellular mobile telephone systems under very difficult conditions, Ericsson uses a technique with exceptionally small cells—picocells. The cells can have a radius of only a few tens of meters. This technique is used in Ericsson's system for cordless business communications.

#### **PCN**

Personal Communications Network is a service provided in the public telecommunications network for lightweight and low-cost cordless telephones, so-called personal phones.

#### **RACE**

Research in Advanced Communications in Europe is a research program. Its purpose is to promote technical development of telecommunications in Europe.

#### **SDH**

Synchronous Digital Hierarchy, a new European standard for digital signal transmission in telecommunications networks, was developed to meet the demands for higher transmission speeds.

#### **TDMA**

Time Division Multiple Access is a technique for digital transmission of radio signals between, for example, a mobile telephone and a radio base station. The frequency band in TDMA is divided into a number of channels that, in turn, are broken up to form short time intervals in such a manner that several calls can share a channel without interference.

#### **TMOS**

Telecommunications Management and Operations Support. TMOS comprises a family of products for computerized operation and supervision of public telecommunications networks.

## Annual General Meeting

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The Annual General Meeting will be held at the Concert Hall, Hötorget, Stockholm, at 5 p.m. Thursday, May 7, 1992.

Shareholders intending to participate in the Annual General Meeting must be entered as shareholders in the share register kept by Värdepapperscentralen VPC AB (Swedish Securities Register Center) not later than April 27, 1992.

Shareholders, whose shares are registered in the name of an agent, must temporarily be entered in the share register not later than April 27, 1992, in order to participate in the Meeting.

In addition to the above-mentioned requirements, shareholders shall give notice of attendance to Telefonaktiebolaget LM Ericsson, Corporate Legal Affairs, S-126 25 Stockholm, tel nos: +46 (0)8 719 34 44 or +46 (0)8 719 44 98 between 10.00 a.m. and 4.00 p.m. daily, not later than May 4, 1992 at 4.00 p.m.

### *Proxy*

In order to participate in and to vote as proxy on behalf of a shareholder at the Meeting, a power of attorney must be presented.

### *Dividend*

The Board of Directors has proposed May 14, 1992 as the record day for payment of dividends. Provided this proposal is approved, the dividend is expected to be paid by Värdepapperscentralen VPC AB on May 21, 1992.

### *Change of addresses*

Shareholders who have changed their names or mailing addresses should as soon as possible notify Värdepapperscentralen VPC AB, S-171 18 Solna, Sweden.

## Financial Information from Ericsson

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Interim Report January–March	May 7, 1992
Interim Report January–June	August 20, 1992
Interim Report January–September	November 19, 1992
Preliminary results, 1992	February 11, 1993
Results, 1992	March 12, 1993
Annual Report 1992	Mid April, 1993

Financial reports are available from:  
Telefonaktiebolaget LM Ericsson,  
S-126 25 Stockholm, Sweden  
(Tel: 08-719 00 00)

The Ericsson Corporation,  
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(Tel: +1 212 685 4030)

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