ANNUAL REPORT 1992

ROBERT BOSCH GMBH

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Robert Bosch GmbH
Stuttgart

Annual Report 1992

Bosch Group Worldwide	1992	1991
Sales	34,432	33,600
Growth compared to the prior year as a percentage	2.5	5.6
Foreign Sales		
as a percentage of sales	47	48
Expenditures for research and development	2,302	2,144
as a percentage of sales	6.7	6.4
Additions to tangible fixed assets	2,038	2,273
as a percentage of depreciation	103	126
Average number of employees		
annual average number of employees	177,183	181,498
as of January 1, 1993/1992	169,804	177,123
Total assets	24,452	24,247
Equity capital	7,859	7,471
as a percentage of total assets	32	31
Net income for the year	512	540
Unappropriated earnings	60	43

Values stated in million DM.

References to interests in companies in this report pertain to shares held directly or indirectly by Robert Bosch GmbH.

In 1992, the economic environment continued to worsen and has significantly affected the Bosch Group. As the most important foreign markets became stagnant, the special economic situation existing in Germany came to an end. Increasing excess production capacities resulted in pressures to reduce prices for our products. At the same time we had to absorb considerable increases in union labor costs as well as rising exchange rates for the DM.

Such burdens accumulated during the latter half of the year, and following a satisfactory first six months, sales began to drop. Total 1992 sales amounted to approximately 34.4 billion DM. The nominal increase over the prior year amounted to 2.5 % and adjusted for price and exchange-rate variations, the increase was about 3.9 %. Since the crest of the international economic situation in 1989, these rates, in both nominal and real terms, reflected the lowest growth rate for the Bosch Group. The unfavorable trend has continued into 1993.

This unsatisfactory business trend impacts profits and forces us to lower the costs for personnel, materials and capital expenditures. In order to defend our market position, we have to cope with a considerably more difficult competitiveness in pricing matters. This requires a significant and renewed productivity increase in all areas. Market conditions also force us to curtail our current voluntary fringe and social welfare benefits.

At the beginning of 1993 the worldwide Bosch Group employed 169,804 people, a decrease of 10,775 employees or approximately 6 %, compared to the beginning of 1992. The reduction took place mainly in Germany. On an average for the year, the sales per employee increased by approximately 5 %.

In order to reduce material costs, we further intensified the cooperation with suppliers by running specialized "Workshops" which include product development engineering from the start. In order to take advantage of internationally existing cost differentials we increased our purchases from low-wage countries including countries in Middle and Eastern Europe. In 1992 we more than tripled our purchase volume with the New States of Germany compared with 1991.

In 1992 we reduced investments in tangible fixed assets by more than 10 % to approximately 2 billion DM in order to curtail costs for such capital assets. We made further progress in lowering costs for quality work. Our efforts pertaining to our zero-defects strategy resulted in even fewer complaints. A great help in this respect was the close cooperation with our customers which starts at the product development stage and continues through the introduction of the product to the market.

We continued to open up new markets worldwide in spite of the need to reduce costs. A number of new acquisitions and cooperative agreements, as well as the further expansion of our sales network, were part of this effort. We introduced numerous new products in order to secure our market position.

The production start-up at our new plant for automotive equipment at Eisenach in November 1992 was of special importance. This new production facility is the largest plant of the Bosch Group in the New States of Germany. By the end of 1994 total capital investments there will amount to approximately 200 million DM and, judging from the present viewpoint, we will employ about 1,000 people in the final phase. In addition, we opened 186 Bosch service facilities in the New States of Germany during 1992. In mid-1992 the 10,000th Bosch Service Agent worldwide began operating in Halle.

During November 1992, the shareholders of Robert Bosch GmbH decided to increase capital stock from 800 million DM to 1,200 million DM in order to reflect the adjustment needed for the growth in business volume. As a first step, an increase to 1,100 million DM took place in 1992, the remaining 100 million DM is scheduled to be transferred in June 1993. The last capital stock increase, from 680 million DM to 800 million DM, took place in 1985. A share of 2.9 % of our capital stock, held until now by Robert Bosch Industrieanlagen GmbH, was transferred to the Bosch Stiftung (Robert Bosch Foundation). This institution now holds approximately 92 % of the capital stock of Robert Bosch GmbH. Shareholdings of the Bosch family as well as those of Robert Bosch Treuhand GmbH remained unchanged.

Business development 1992 in Western Europe, the most important market for the Bosch Group, remained below expectations. During the second half of the year, industrial production fell below the levels of the previous year. In addition, conditions in currency exchange rates and fluctuations in interest rates added to the instability. Japan also experienced increased downward trends. Signals of an improvement in economic conditions were reported only from the United States.

1992 growth in the Old States of Germany amounted to 0.8% in real terms only, after an average of approximately 4% annually for the previous 3 years. Declining trends accelerated towards year end. Orders received by the industry during the 4th quarter of 1992 were 9% below the prior year's real-term values. The automotive industry experienced a drop of about 20%. The number of employees in the industry fell by 4%. Short work shifts increased. The unfavorable development in the Old States of Germany impacted the reconstruction efforts in the New States.

Through the late summer of 1992, international car production was still relatively favorable. Following a drop of about 3.5% in 1991 it increased in 1992 by around 1% due to rising production figures in the American car industry. European and Japanese car manufacturers experienced an increasingly stronger downtrend.

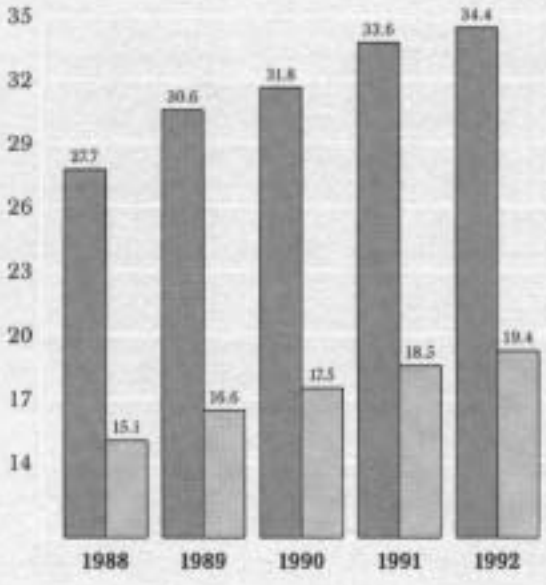
Growth of the Bosch Group slowed

The business progress of the Bosch Group in 1992 was unsatisfactory. After a positive business trend during the first half of the year, the second half experienced a considerable downturn. As compared to 1991, growth leveled off.

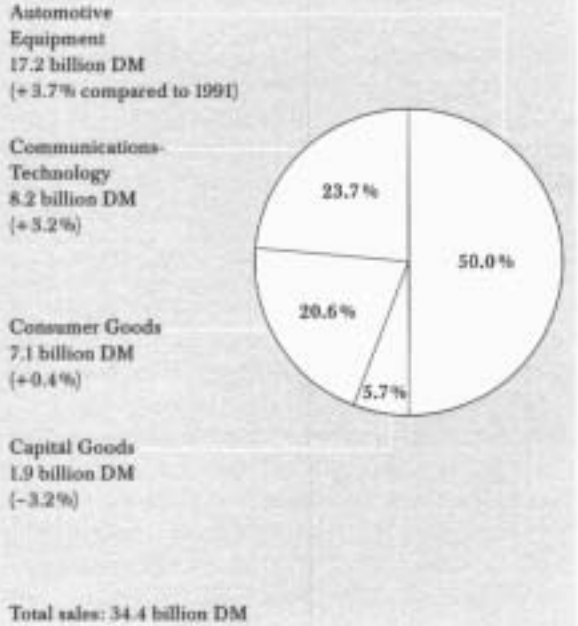
Worldwide sales of the Bosch Group rose 2.5% to a total of $34.4 billion DM. Adjusted for currency and price variations the increase amounted to 3.9%.

Following the special boom of 1990 and 1991, domestic business decreased strongly. Sales of

Bosch Group Worldwide and Robert Bosch GmbH Sales 1988–1992
(billion DM)



Bosch Group Worldwide Sales by business sectors 1992



18.3 billion DM exceeded the previous year's figures by 4.1% only. Following a drop in 1991, foreign sales increased 0.7% to 16.1 billion DM.

Sales of Robert Bosch GmbH increased 4.9% to 19.4 billion DM.

Percentage change in sales	1992	1991
Bosch Group Worldwide	+2.5	+5.6
Robert Bosch GmbH	+4.9	+5.4

Subdued trend in all four business sectors

The automotive equipment business sector achieved the strongest growth. Sales grew 3.7% to a total of 17.2 billion DM. As in the previous year, the growth was mainly due to the continuing high demand for diesel as well as gasoline fuel-injection equipment.

Growth in the communications technology business sector was hampered by declining demand for private communications systems, as well as by intense price competition for car radios and products in entertainment electronics. Sales rose by 3.2% to 8.2 billion DM. Calculated on a comparable basis, the increase was 0.2% and was only slightly above that of the previous year.

Sales of the consumer goods business sector increased 0.4% to 7.1 billion DM compared to the 1991 increase of 10%. The capital goods business sector was even more seriously affected by the weak economic conditions at home and abroad. Due to the dismal situation in the mechanical engineering industry, sales again dropped by 3.2%, this time to just under 2 billion DM.

Intensified international activities

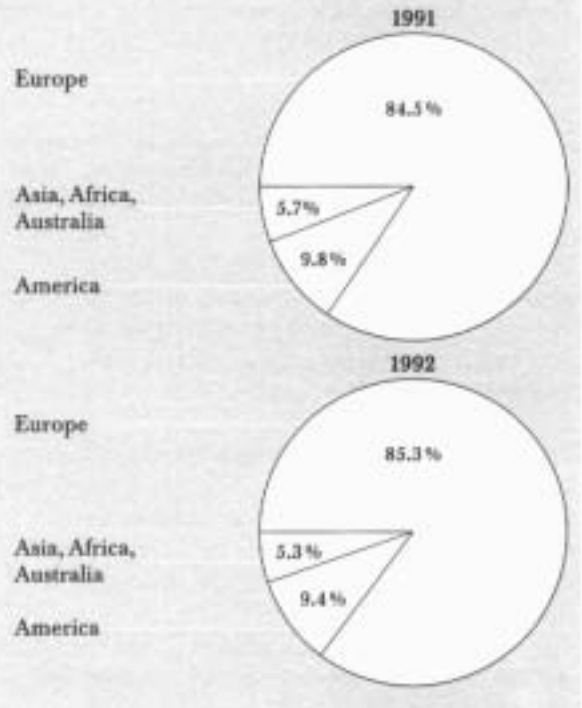
In the USA we acquired a 49% share of Diesel Technology Company, Grand Rapids, MI, a subsidiary company of the Penske Group of Detroit, MI. This company develops and produces diesel fuel-injection equipment. It is anticipated our shareholdings will increase to 50%.

In October 1992, another US company, S-B Power Tool Company, Chicago, IL, a joint-venture with Emerson Electric Co, St. Louis, MO, was formed. This joint-venture, in which both partners hold equal shares, combines the operations of our regional subsidiary Robert Bosch Power Tool Corporation with 600 employees, and the Emerson subsidiary Skil Corporation, Chicago and their 2,400 employees.

Bosch and Emerson have been equal partners since July 1990 in Vermont American Corporation, Louisville, KY. In particular, this joint-venture produces accessories for electric power tools.

We formed two joint ventures in the Czech Republic. In Budweis, together with Motor Jikow a.s., we formed Robert Bosch spol. s r.o. in April 1992, in which we hold a 76% share. Ini-

Bosch Group Worldwide
Sales structure by regions 1991 and 1992



tially this company will employ 250 people and produce components for commercial-vehicle compressed-air brakes, and beginning in 1993 central injection units for spark-ignition engines.

During October 1992 we formed, together with Motorpal a.s. in Jihlava, Bosch Diesel spol. s r.o. in which we also hold a 76% share. Initially employing 100 persons, this company will produce components for diesel-fuel injection equipment. Motorpal is one of the most important manufacturers of diesel equipment in Eastern Europe.

In Japan we acquired an initial share of 49% in Airbag Systems Co Ltd, a joint-venture company with Zexel Corporation.

During the coming years, our share will be increased to 50%. Since January 1993, this joint-venture company develops, produces and sells ECU's for electronic passenger-restraint systems, such as airbags and seat-belt tighteners, for the Japanese market. Further, we acquired shares amounting to 9.6% of Atsugi-Unisia Corp. As of March 1, 1993, this company was merged into Jecs Corp. in which we held a share of 12.5%. Our share in the new Unisia-Jecs Corp. is now 10.2%. During Spring 1992 we began operations in our Technical Center for automotive equipment, Yokohama.

In Great Britain, we acquired a majority share in Worcester Group plc. This company is market leader for combination-thermes in Great Britain.

In Turkey, together with our partner Elginkan Holding AS, Istanbul, we began operations in a new factory in Manisa for gas-fired water heaters, boilers and gas controls.

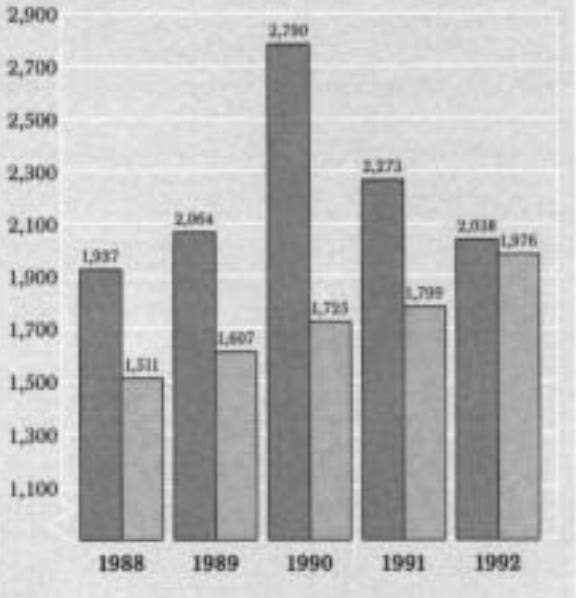
Our joint-venture company with Varta Batterie AG, VB Autobatterie GmbH, Hannover, began operations in Germany and in Spain in January 1992. In this joint venture for starter batteries, we hold a share of 35%.

During July 1992, we acquired the remaining 60% of common shares of Signalbau Huber AG in Munich. Also in July, during a general shareholders meeting of MotoMeter AG it was decided to dissolve the company in which, since 1991, we held a majority share, and to transfer its assets to MotoMeter GmbH.

The distribution network abroad was further expanded

We expanded our distribution network abroad. We acquired the business of our former Dutch representative and merged it into our regional subsidiary. With this move we are now represented in all important markets in Western Europe through our own sales companies. As a long-term objective, we are striving to achieve a similarly strong market presence in Middle- and Eastern Europe. As a first step, we formed sales companies in Budapest, Prague, and Warsaw. By mid-1993 we shall also operate new companies at Bratislava, Bucharest, Kiev, Llubljana, Minsk, Moscow, Riga, Sofia and Zagreb.

Bosch Group Worldwide
Additions to tangible fixed assets and depreciation 1988–1992
(million DM)



In Asia we converted the South-Korean branch of our Japanese subsidiary into an independent regional subsidiary. We opened a liaison office at Manila.

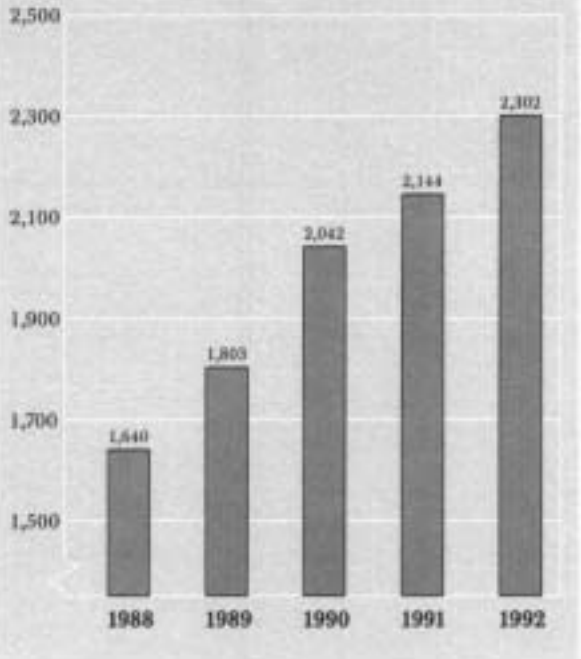
Purchasing volume increased

The purchasing volume for production materials and trade goods as well as for tangible fixed assets increased to a total of 16.3 (1991: 15.5) billion DM. Purchases from the New States of Germany increased to 580 (1991: 185) million DM.

Investments in tangible fixed assets reduced

Investments in tangible fixed assets dropped to 2 billion DM from 2.3 billion DM in 1991. They exceeded depreciation by 3.1 %, as a percentage of sales, the ratio fell to 5.9 (1991: 6.8) %.

Bosch Group Worldwide
Expenditures for research and development 1988–1992
(million DM)



Approximately 66 (1991: 64) % of such investments were in Germany. This domestic share is due to increased activity in the New States of Germany. As in prior years, 84 % of investments were for machinery, equipment, and tools.

We invested 312 (1991: 415) million DM in land and buildings. Of these amounts, we spent 222 (1991: 267) million DM in Germany and 90 (1991: 148) million DM abroad.

Manufacturing facility for the new ABS/ASR generation starts operations

For the production of a new generation of antilock braking systems (ABS) and traction controls (ASR), we started operations in a new manufacturing facility in Immenstadt. In Berlin we moved into a new extension to our distribution center. We constructed a laboratory for development, testing and production of optical and opto-electronic elements and modems for communications technology systems in Backnang (near Stuttgart). Construction was begun on a center in Frankfurt am Main which will combine the development, distribution, and service functions of the private communications business sector.

Other significant building investments in Germany were made in Schwieberdingen and Stuttgart-Feuerbach.

We erected a large production facility at Mondeville/Caen (France) for the manufacture of electronic control units. Other buildings were erected by our regional subsidiaries in Mexico and Brazil.

High research and development expenditures

Expenditures for research and development amounted to 2.3 (1991: 2.1) billion DM. The number of employees in these areas dropped, on a worldwide basis, by 378 to 12,670, and at our regional subsidiaries at year end amounted to 1,731 (1991: 1,727) persons.

Number of employees continued to fall

On average in 1992, we employed worldwide 177,183 persons, 4,315 fewer than a year ago. The decrease was mainly in Germany. In addition, during the fourth quarter of 1992 we introduced short-time work in order to adapt to the receding inflow of orders.

In Germany, foreign employees represented 17% (1991: 17%) of the total workforce. The Board of management, together with the combined shop council and the Bosch Group speaker committee announced in October 1992 their objection to the growing hostilities towards foreigners emanating from certain parts of the German population. In addition, they called for all employees to "maintain and to contribute to a company climate in which respect, tolerance and friendly behavior between German and foreign co-workers are a matter of course".

Number of employees in foreign countries also declined

The average number of employees in foreign countries also declined. Contrary to this trend, our regional subsidiaries in France, Great Britain and Portugal increased their workforce. In 1992, we employed on average 20,851 persons in the EC countries outside Germany, 2,358 more than in 1991.

Annual average number of employees	1992	1991
Robert Bosch GmbH	70,436	73,955
Domestic subsidiares and affiliated companies	42,506	42,856
Regional subsidiaries	64,241	64,687
Bosch Group Worldwide	177,183	181,498

Profits continued to be negatively affected

Profits did not meet our expectations. Due to the increasing competition and the worsening business conditions, prices declined domestically. In addition, in foreign markets, due to the strong revaluation of the DM relative to other important currencies, we were not able to offset through price increases. Operating profits declined further in spite of our efforts to lower costs.

Including a tax refund of 469 million DM, the net income 1992 of Robert Bosch GmbH amounted to 754 million DM. The tax refund was a result of the increase of share capital using the "pay-out/take-back method". Following a transfer of 1,031 million DM from earned surplus and an advance distribution of 1,500 million DM of which 1,440 million DM were returned to capital stock and equity accounts, DM 285 million remain for profit distribution.

We propose to our shareholders to distribute this amount as follows: Transfer of 225 (1991: 225) million DM to surplus accounts. Payment of a dividend of 60 (1991: 42.5) million DM.

Profits of the Bosch Group Worldwide amounted to 512 (1991: 540) million DM.

Stated equity capital at Robert Bosch GmbH increased in 1992 to 3,971 (1991: 3,320) million DM. Equity capital of the Bosch Group Worldwide rose to 7,859 (1991: 7,471) million DM.

Forecast: Sales drop expected

In 1993, we expect a drop in sales due to the unfavorable overall economic situation and the pronounced reduction of the European automakers' production figures.

Employees of the Bosch Group

At the beginning of 1993 the Bosch Group Worldwide employed 169,804 employees, 7,319 or 4.1% fewer than the year before. In Germany the number of our employees declined by 6,039 or 5.3% to 107,499. About 60% of our domestic employees were wage earners (38% of which were skilled workers), 35% salaried employees and 5% apprentices. Female employees accounted for 28% of the workforce.

Higher labor costs in the Old States of Germany

In Spring of 1992 labor and management in the metal industry agreed to increase wages and salaries covered by union agreements in the Old States of Germany by 5.4% on April 1, 1992 and by another 3% on April 1, 1993. The agreement remains effective until December 31, 1993. In addition, as of April 1, 1993 the work week decreased by an hour to 36 hours. Together with higher contributions to social security, our expenditures for wages, salaries and fringe benefits in the Old States of Germany increased by 5.1% per work hour in 1992 (1991: 9.1%).

Personnel costs rose further

Worldwide, personnel costs of the Bosch Group increased to 11.8 (1991: 11.4) billion DM. Total personnel costs of Robert Bosch GmbH in the amount of 5.93 (1991: 5.86) billion DM include 2.96 (1991: 2.94) billion DM in fringe benefits. As a result, for every 100 DM of direct compensation for work performed, we paid an additional 100 DM (1991: 101 DM) for social benefits.

Employees participated in profits

We enabled our employees to share in company profits through a service and performance premium in the amount of 87.50 DM per 3,465 DM of annual gross earnings plus 20 DM for each year of service. Including vacation pay and the Christmas bonus, an employee received extra pay in the amount of 160% (1991: 162)% of one month's earnings. Employees of subsidiaries and affiliated companies also received the same or similar special voluntary company payments.

Continuous Improvement Process intensified in the entire company

In the entire company, we intensified the Continuous Improvement Process (CIP) which was introduced in 1991. In agreement with employee representatives we initiated numerous measures in order to familiarize all employees with the CIP idea. We set up CIP workshops, trained employees from all areas of the company in Germany and abroad to become moderators, and trained about 1,900 managers; we also started introducing CIP during training.

TOP – The concept of Team Oriented Production

At several locations of the Bosch Group we have tried a new work concept intended to contribute to the promotion and broader application of CIP: Team Oriented Production (TOP).

TOP calls for the formation of teams with a manageable number of employees. The team solves the tasks assigned to it independently and moreover is responsible for the tools and methods it utilizes in the process. In this manner, decision-making authority is shifted to lower levels. Some production-related tasks (for example materials planning, repair, quality assurance or manufacturing engineering) are transferred to the team or carried out by employees assigned directly to it.

Through the team concept we attempt to enable employees to identify more closely than before with their tasks, with the products built by them, and with the company objectives. Our goal is to develop motivated employees who are constantly seeking to improve quality and productivity in production. We will continue to expand the TOP activities which we have initiated.

More employees working outside of their home country

Our need for employees with international experience is growing. Through their foreign assignments, employees are supporting the setup of new manufacturing plants and marketing organizations abroad; in addition it is becoming increasingly more important that employees acquire international experience outside their home country; this experience usually helps to shape their professional career as well as their personal development.

Increasingly we are also offering employees of our regional subsidiaries an opportunity for a stay abroad of several years. In this manner we intensify the contact with the parent company in Germany and promote the exchange of knowledge and experience between regional subsidiaries. By the end of 1992 we employed over 600 skilled workers and managerial staff away from their home country. Of these about 100 employees were from our regional subsidiaries.

It is very important to us that the rising generation of managerial staff acquire international experience early on in their career. Thus for a significant number of our trainees a 3 to 6 month stay abroad is part of their training program lasting between 18 and 24 months.

Training improved further in the New States of Germany

We are providing state-of-the-art training to our apprentices in the New States of Germany in which we employed 3,651 people at the beginning of 1993 (figured on a comparative basis: 3,507 at the beginning of 1992). At the Eisenach location we opened a training center which provides workshops and training classrooms for about 150 apprentices.

In 1992 we also experienced decreased demand for training positions. With 1,552 apprentices in Germany, this number fell short by 177 of the previous year's level which was the highest in Bosch history.

Vocational training and further education according to need

Worldwide we invested 162 (1991: 152) million DM in vocational training and further education. 120,600 (1991: 114,900) employees participated in 9,580 programs. One of the major goals of management training was the provision of support for superiors during the introduction in the Robert Bosch GmbH of the employee dialog which was developed from the former performance evaluation.

In order to be able to respond more quickly and more efficiently to the wishes and needs of our customers, we also developed the "customer orientation" training program. It calls for the joint training of employees from the development, sales and quality-assurance departments in so-called customer teams.

Rental housing in Old and New States of Germany

In 1992 Robert Bosch-Siedlung gGmbH invested approximately 17.5 million DM to build 89 rental units in Eisenach, Immenstadt, Karlsruhe, Murrhardt, Reutlingen-Rommelsbach and Sebnitz. 104 rental units are under construction in Munich, Reutlingen, Schwieberdingen and Sebnitz at a total cost of approximately 22.5 million DM.

Expression of appreciation to employees

We wish to thank all of our employees for their contribution and great commitment. Their engagement was decisive in enabling the Bosch Group to prevail under difficult market conditions. We would also like to thank all labor representatives for their trustful cooperation in supporting the decisions required to secure the future of our company.

Development of microelectronic sensors and actuators

Electronic systems in automobiles are requireing an increasing number of sensors. The development is shifting away from purely mechanical and electromechanical sensors to microelectronic sensors.

Silicon mono-crystals are excellently suited as the basic material for high-precision micromechanical pre-formed sensor parts such as diaphragms and webs. At the same time, as a semiconductor, silicon allows the integration of the related electronic evaluation and calibration circuits on the same chip in addition to the sensor functions. We are developing such pressure and acceleration sensors. They are small and very reliable.

In conjunction with a project of the Federal Ministry for Research and Technology we are working on various drive principles based on silicon micromechanics and have built the first prototypes of thermomechanical, piezoelectrical and electrostatic actuators. In another step we expanded their applications to form valves for fluid applications.

We are able to precisely structure components in micrometer dimensions with the aid of a new laser unit, an Excimer laser, whose beam guiding and imaging optics are unique with respect to the shaping, homogeneity and contour definition of the laser beam. With it we cut fiber-optic cables a few micrometers wide, remove insulation layers for microelectronic multi-layer circuits and produce microforms for galvanic plating charges.

We are investigating two new methods in open-loop and closed-loop control technology to determine their suitability for automotive applications: Fuzzy logic and neuronal networks. Initial work with fuzzy systems on cruise controls, transmission controls and antilock braking systems (ABS) point to the possibility of shorter development times and simplified applications. Based on present findings, knocking or combustion misses in the engine can be detected with neuronal networks. In addition we are studying ways of also using the method for engine diagnostics.

Electronic systems in motor vehicles are becoming increasingly more extensive and complex. The interlinking of previously separate single systems allows comprehensive functions which optimize the interaction of engine, transmission and ride-control systems. To accomplish these difficult tasks, we developed software tools which support our development and application engineering.

We are investigating new methods to clean exhaust gases containing oxygen

We are working intensively on methods which reduce the percentage of nitrogen oxides catalytically, including those in exhaust gases containing excess oxygen (for example diesel-engine exhaust gases).

We are studying the physico-chemical characteristics of newly developed catalytic converters which allow the use of easy to meter hydrocarbons as reducing agent. This will enable us to assist our customers to further develop exhaust-emission control technology.

Semiconductor gas sensors to measure exhaust-gas pollutants

Nitrogen oxides, carbon monoxide and unburned hydrocarbons can be detected with great sensitivity using semiconductor gas sensors. We are investigating the possibility of using these sensors for on-board diagnostics (OBD) in the exhaust stream of motor vehicles.

At our Research Center, we are designing the physico-chemical principles of such new semiconductor gas sensors and preparing and testing samples. In cooperation with Product Development, we investige the stability of the sensor's characteristics when it is exposed to the engine exhaust gas and then specify the requirements to be made on the sensors. Research is focussed on longer life expectancy and the effects on the sensor characteristics of the various operating conditions encountered in the vehicle.

Functional optimization of fuel-injection components

We are optimizing the functioning of our gasoline fuel-injection components. By visually displaying the flow dynamics in large-scale fluid-operated models, we were able to increase the efficiency of flow pumps for fuel delivery and to make the internal flow of the fuel-injectors less sensitive to tolerances.

We investigated the function-determining boundary layer and heat-transmission phenomena on a large-scale air-operated model of the hot-film air-mass meter. We use these results to improve product characteristics.

Test method for inner surfaces of bore holes

To check minute bores in workpieces, we developed a method which, with cycle times of only a few seconds, reliably and quickly detects surface flaws. With the aid of a laser beam, a sensor scans the inner wall of bores and determines the surface structure on the basis of a few characteristic features. The test sample is classified with respect to surface flaws with the aid of a computer program.

Miniaturization of high-frequency components

In connection with a project of the Federal Ministry for Research and Technology we are working on the development of high-frequency components on the basis of high-temperature superconductors. In the past, resonators and filters were assembled using bulky waveguide technology. Today, with the aid of new materials they can be significantly reduced in size by building them in the form of stripline circuits. Miniaturized components are of particular advantage in communication satellites.

Integrated circuits for the communications technology business sector

We developed semiconductor circuits based on indium-phosphide technology which combine optical and electrical functions on a single chip.

Starting with the required characteristics of the circuit, the layer materials as well as their geometric dimensions are specified by means of computer simulation. As in the case of silicon technology, such integrated circuits are manufactured simultaneously in large numbers on one wafer. The reductions in manufacturing costs achieved as a result are a major prerequisite for the economical operation of glass-fiber cable systems in local networks.

We developed a family of units for the new international standardized multiplex hierarchy SDH (Synchronous Digital Hierarchy). Its standard frame accomodates the previously used, and in some cases differing, multiplex stages.

The highly complex integrated circuits required for this purpose were developed in our laboratories. Over 1 million transistor functions are housed on chips with dimensions of a few millimeters.

Components for traffic-control systems

Traffic-control systems are increasingly helping to make better use of existing roads. Collective systems control traffic flows by means of detour signs and traffic bulletins; individualized systems seek the best way to guide an individual vehicle to its destination. This requires two-way communication between the vehicle and the communication and data-processing centers via microwave or infrared beacons.

We developed major system components including software. These components allow the installation of increasingly more complex traffic-control systems which, for example, are also capable of automatically checking access authorization and of calculating and charging tolls.

Bosch-Group – Business Sectors

Automotive Equipment

Automotive Equipment Division 1

ABS, chassis systems and safety systems

Automotive Equipment Division 2

Lighting technology

Automotive Equipment Division 3

Management systems for gasoline engines

Automotive Equipment Division 4

Bodywork electrics and electronics

Automotive Equipment Division 5

Diesel fuel-injection equipment

Automotive Equipment Division 8

Semiconductors and electronic control units

Automotive Equipment Division 9

Starting motors and alternators

Synthetic Parts Division

Semi-finished plastic products; assemblies; rubber-metal connections; interference-suppression devices and connecting elements

Automotive Aftermarket Division

Distribution of automotive equipment, after-sales service

Communications Technology

Mobile Communications Division

Car radios and accessories, on-board display systems, car antennas, mobile-radio technology, location-finding and navigation systems, entertainment electronics, broadband communications

Public Communications Division

Multiplex systems, cable transmission technology, network-management systems, telecommunication cable systems, radio relay, satellite and mobile radio systems, switching systems, network termination systems, special terminals (card phones, cryptographic equipment), traffic control systems, avionics and navigation systems, video-conference systems

Private Communications Division

Products and services for private networks, terminals, security engineering, time-service and time-management systems, display equipment

Consumer Goods

Bosch-Siemens Hausgeräte GmbH[1]

Electrical household appliances, entertainment electronics

Power Tools Division

Electric power tools for the trades, for industry, and for the do-it-yourself markets. Accessories

Junkers Division

Heating and hot-water equipment, heating-system controls, blower burners, gas controls, bathroom furniture

Capital Goods

Hydraulics and Pneumatics Division

Hydraulic and pneumatic products for mobile and stationary applications, electronic fluid-control technology

Industrial Equipment Division

Industrial electronics, assembly and handling equipment, deburring equipment, test equipment and technology

Packaging Machinery Division

Packaging machines and equipment. Machinery for the production of candies and pharmaceutical products

1) Bosch ownership 50%

(Status as of December 31, 1992)

Following a drop of 3.5% in 1991, automobile production worldwide improved during the first half of 1992. Increases in the USA and Western Europe compared to decreases in Japan. During the second half of the year, Japan in particular experienced an acceleration in the decline. With the exception of Germany, the production of automobiles in Western Europe also declined. In contrast, manufacturers in the USA and Germany were able to increase their production. 1992 worldwide automobile production grew 1% to a total of 47.4 million units. Whereas production in North America increased, it continued to drop in Japan and Western Europe.

Our automotive equipment business sector increased its sales by 3.7% to 17.2 billion DM.

Demand for gasoline fuel-injection systems continues

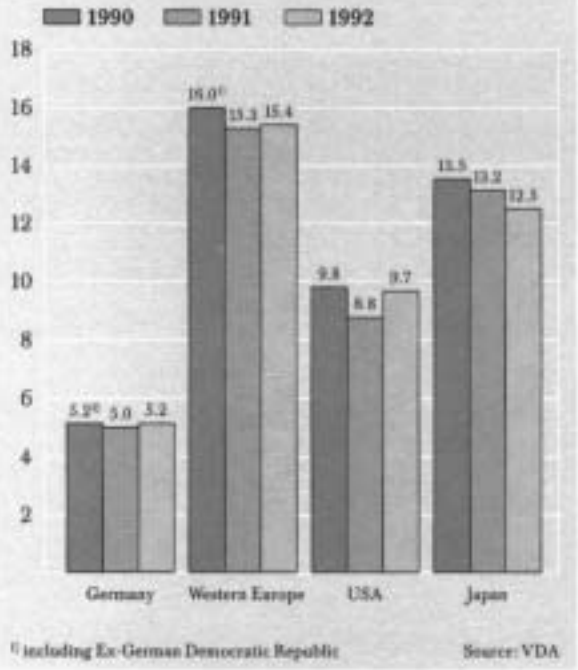
1992 marked the 25th anniversary of the introduction of electronically controlled gasoline fuel-injection to the market. In 1967, we were the first manufacturer to launch such a system, the D-Jetronic, and in the meantime we have equipped more than 40 million vehicles with gasoline fuel-injection systems.

The new emission standards which became effective as of January 1, 1993 in the European Community characterized the market development of engine-management for gasoline engines in 1992. In anticipation of the new emission standards, motor-vehicle manufacturers increasingly installed electronically controlled engine-management systems with catalytic converters in their vehicles. Our sales increased by 29% to 5.3 million systems.

We started production of our new EV6 injector in a pilot production line in May 1992. It is smaller and lighter than the standard version.

We developed a compact and cost-effective version of the injection unit for single-point fuel-injection. Deliveries to our customers started in the first half of 1992.

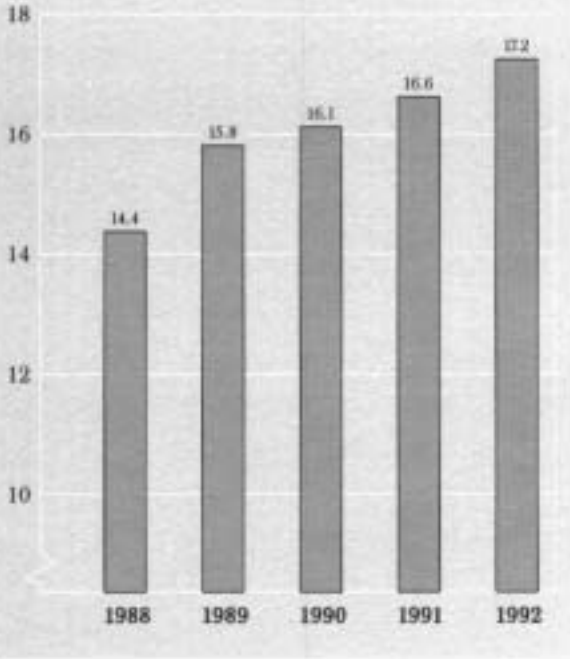
Automotive market
Production of motor vehicles in selected markets 1990–1992
(million units)



[1] including Ex-German Democratic Republic

Source: VDA

Bosch Group Worldwide
Sales of automotive equipment 1988–1992
(billion DM)



With the goal of reducing the number of different versions, we launched a new cost-effective electronic control unit (ECU) which can be used for single-point or multipoint fuel-injection systems simply through selecting the appropriate software. Our largest highly integrated hybrid module to date, with the dimensions 7.5 x 10 cm, was used in a Motronic system controlled by intake-manifold pressure for the first time. All electronic control units mentioned are suitable for installation in the engine compartment.

Ongoing optimization of our diesel injection systems

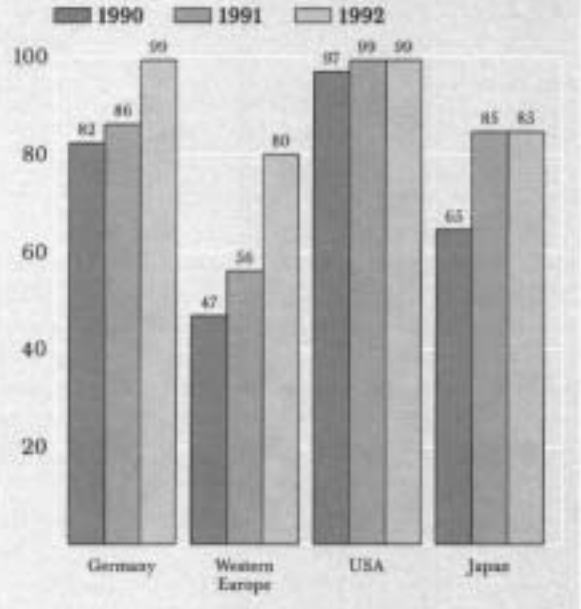
Demand for passenger cars with diesel engines continued to increase in Europe. In addition to the familiar advantages of these engines, such as economy, reliability and long life, additional improvements in driving comfort had a favorable effect on sales. We contributed to this through optimization of our injection systems and the development of new add-on groups.

More and more manufacturers of passenger cars use direct-injection diesel engines which even further reduce fuel consumption and thus the emission of carbon dioxide. The use of electronic diesel control (EDC) makes it possible to meet emission standards.

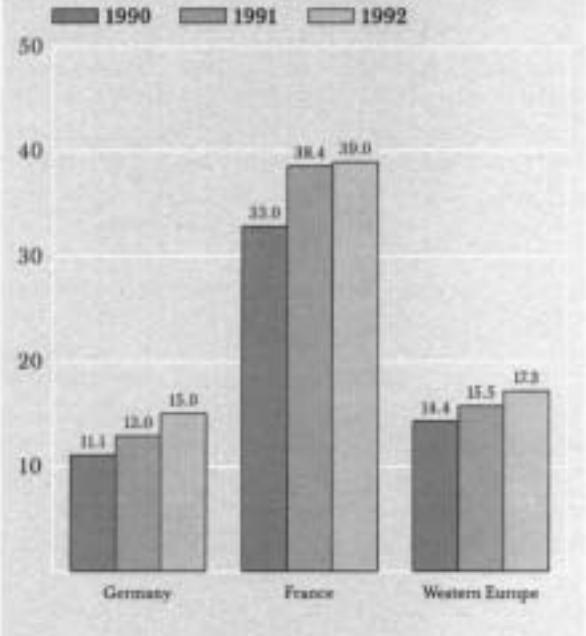
Our electronic diesel control is also being used more and more widely in passenger cars with prechamber engines and in commercial vehicles. Stricter emission standards can thus be complied with more easily; in addition EDC offers opportunities for the improvement of driving comfort and for the electronic linkage with other control systems in the vehicle.

Stricter emission standards in the USA (starting in 1994) and in the European Community (starting in 1996) require load-dependent timing advance for commercial vehicles. For this purpose we developed the control-sleeve in-line pump in which the injected fuel quantity and the start of injection can be controlled by an ECU and actuators in accordance with engine requirements.

Automotive market
Share of gasoline-injection systems in the production of gasoline-engine motor vehicles in selected markets 1990–1992
(percentage)



Automotive market
Share of diesel-engine passenger cars within newly registered passenger cars in selected markets 1990–1992
(percentage)



A number of the future diesel-engine concepts call for the remote-mounted injection pump to be replaced by equipment which is incorporated in or on the engine. To this end, we are developing electronically controlled unit pump systems. These include the unit injector which is installed in the cylinder head as a unit formed by the pump and the nozzle, as well as the unit pump in which a short line connects the single pump to the nozzle in the cylinder head. Both the injected fuel quantity as well as the start of injection can be adjusted individually for each cylinder by means of a solenoid valve.

We acquired an interest in Diesel Technology Company in the USA in order to strengthen our activities in the unit pump sector. The company has been manufacturing electronically controlled unit injectors since 1985 and has significant production experience in this field.

We consolidated our position as the market leader for Antilock Braking Systems

Despite strong competition, we consolidated our position as the market leader in the growing market for antilock braking systems (ABS) and traction controls (ASR) for passenger cars. In 1992 alone we supplied over 2.6 million Bosch ABS worldwide from our plants in Germany and the USA as well as from production of our Japanese joint venture Nippon ABS. An additional 0.5 million systems were built under license. Worldwide, the number of our ABS customers rose to 41. These offer Bosch ABS on a total of 138 basic models. For the first time this includes manufacturers in Brazil and Australia. In October 1992 we built the 10-millionth ABS since the start of production in 1978.

At the beginning of 1993 we started pilot production of our new generation ABS5 and ABS/ASR5 at our plants in Immenstadt and Ansbach. Compared to previous units, these systems are even more compact and can be produced even more cost-effectively.

To an increasing degree, the ABS electronic control unit is being built using thick-film hybrid technology and is integrated into the hydraulic modulator. The use of hybrid technology means that the ECU's are smaller and capable of withstanding higher thermal and mechanical stresses. This results in considerable advantages and cost-savings for the vehicle manufacturer during installation.

We are concentrating on the development of a vehicle-dynamics control, a new system to improve driving stability. It compares the vehicle direction selected by the driver and determined by the steering, with the actual movement of the vehicle and, if necessary, automatically corrects the movement by intervening in the braking system and drive. We expect that vehicle-dynamics controls will acquire major significance in the second half of the '90s.

After ABS was legally mandated in Western Europe for heavy commercial vehicles, sales of our systems increased substantially in 1992. We further consolidated our position in Europe as well as in Japan, South Korea, and Brazil. Particularly the market in the area of the former Czechoslovakia expanded strongly; there all commercial-vehicle manufacturers use Bosch ABS.

We developed the electronically controlled commercial-vehicle brake (ELB) to the production stage and presented it at the commercial vehicle IAA 1992.

Expansion of production capacity for airbag trigger units

Passive restraint systems are becoming more widely used worldwide. More and more vehicle manufacturers offer airbags and seatbelt tighteners as a standard feature in their models. Electronic trigger units with integrated accelerometer (central sensing), such as we have been building since 1980, will almost completely replace electromechanical systems in the future. So far we have supplied over 4 million units, and are the market leader in Europe.

We expanded our manufacturing capacity in order to meet the growing demand for trigger

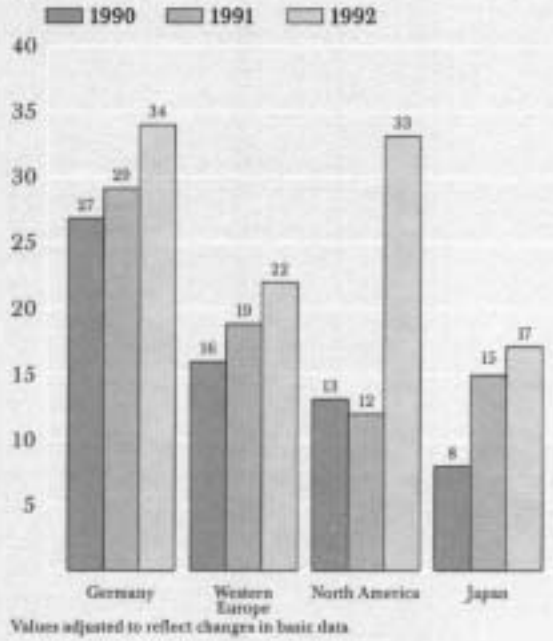
units in Europe. In addition to our production in Salzgitter we are now also building these units in Ansbach.

At the end of 1992 we started production of trigger units in Juarez (Mexico) for the American market. We supply the Japanese market through the joint venture Airbag Systems Co Ltd established in November 1992 with our previous licensee. The joint venture has been manufacturing since early 1993. In order to meet customer demand for a complete-system offer, we launched a cooperative venture with Morton International Inc., a major supplier of gas generators and airbags for airbag systems.

The focus of our continued development of trigger units is cost reduction and standardization for worldwide application. We developed a universal central trigger unit which is scheduled to go into series production in 1993.

This trigger unit can be manufactured cost effectively at our various production sites.

Automotive market
Share of ABS-equipped* passenger cars in total passenger-car production in selected markets 1990–1992 (percentage)
*Antilock Braking System



Values adjusted to reflect changes in basic data

The Litronic headlamp system is well received by customers

Our Litronic headlamp system with gaseous-discharge lamp which went into production in 1991 was well received by the market. At present we are the only supplier of such a system. We are preparing the series-production of a second more compact and cost-effective generation for additional customer projects.

We developed a new computer method for headlamp reflectors which leads to a more precise distribution of the light. As a result even relatively small headlamps achieve a light intensity which in the past could only be obtained with large headlamps or with the aid of additional optics. The method is suitable for low-beam and high-beam headlamps and fog lamps.

Optimization of the vehicle electrical system

As well as powering light loads during continuous operation, the vehicle electrical system must be able to supply high currents for a brief period during the start phase. This leads to the need for a technical compromise in battery configuration.

As the result of our work on optimizing the vehicle electrical-system structure, we consider it to be an advantage if the system is divided into two current circuits, with a starter battery which supplies high current for a limited period and a supply battery for continuous operation of the vehicle electrical system. This improves the load/charge balance and reduces overall weight.

Lighter starters also in the lower output range

Since less and less underhood space is available for the engine and its equipment, and low weight contributes to reducing fuel consumption, our customers' demands for smaller and lighter assemblies continues unabated. We comply with these requirements by applying

the reduction-gear principle on many of our starter series.

We added a 0.9 kilowatt version to our line of reduction-gear starters in the lower output range. As a result the starter weight was reduced by 25%.

Additional large-scale production of compact alternators in Treto (Spain)

The introduction of our new compact alternators met expectations. In 1992 compact alternators already made up approximately 35% of all of our alternator deliveries. For this reason we started large-scale production of compact alternators at the Treto (Spain) location in Spring of 1992 in addition to our plant in Cardiff (Great Britain).

Better wiping quality with synthetic rubber

We are the first manufacturer in Europe to start mass production of wiper blades with synthetic-rubber wiper element. In contrast to natural rubber, the synthetic elastomer chloroprene is more resistant to chemical and thermal influences. Good wiping quality is thus maintained over a longer period of time.

We developed brushless electronically commutated DC motors for use in heating and air-conditioning systems. These motors are especially suited for variable-speed drives with very long service-life requirements. Their integrated electronics offer distinct advantages regarding installation.

We developed control electronics with various basic functions for front and rear wiper motors. These functions are integrated in the motors. We completed work on an electronic control with jamming protection which is built into the power-window motor.

We also developed an integrated control and power electronics for low-noise sunroof operation. It not only controls the positioning in the sliding and lifting area, but in addition to other functions has two adjustment speeds.

Development of electric drives continued

We continued work on the "electric drives for hybrid vehicles" concept. The goal is to combine the advantages of the conventional vehicle drive with those of electric drive. In addition we developed drive components for electric vehicles. We use three-phase AC drives for both systems, and we have combined their main assemblies in a modular system.

Expanded range of applications for plastic parts in the vehicle

Improved material properties and new designs expand the range of application of highly stressable thermoplastics. The focus is on subassemblies made of plastic and metal, for connectors as well as for engine-compartment components. This makes a further contribution to weight reduction. We expect that such products will be used to a greater extent in the future.

Worldwide aftermarket sales

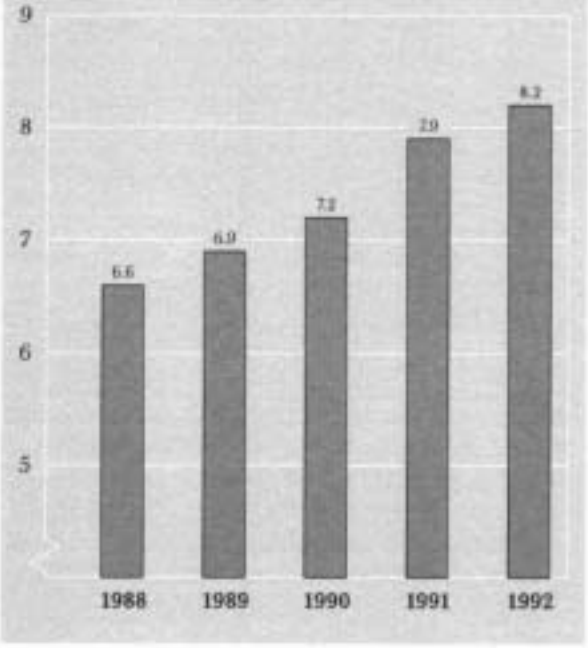
The Automotive Equipment Aftermarket Division further expanded its sales and service organization. The ten-thousandth Bosch service outlet was opened in Halle/Saale in June 1992. The service organization now consists of 10,157 (1991: 9,835) workshops with over 100,000 employees in 125 countries.

We improved our range of services in Germany in combination with our contract wholesalers. We matched our warehouse organization, product mix and order handling even more closely to market requirements and thus reduced inventories of finished goods. We also introduced an electronic information system for sales staff.

We strengthened our position in the markets outside Europe, particularly in South-East Asia and Latin America.

Faced with increasing competitive pressure, the communications technology markets developed very unevenly. In the area of public networks, investments remained at a high level while demand in the private communications area decreased significantly in the second half of 1992. In the area of mobile communications, demand weakened primarily for car radios and home-entertainment electronics, and the price decline intensified. On the whole, sales of our communications technology business sector increased by 3.2% to 8.2 billion DM.

Bosch Group Worldwide
Sales of communications technology 1988–1992
(billion DM)



Market weaknesses in mobile communications

Calculated on a comparative basis, sales of the Mobile Communications Division declined by 4.5%.

The car-radio and accessories product group had the highest sales figures, and here we increased our market share in the original-equipment field with sales to motor-vehicle manufacturers. We were unable to maintain our position in the aftermarket area.

We expanded our domestic and foreign development capacity in order to respond even more quickly to market requirements. We also expanded our automated large-scale facility in Hildesheim.

We concentrated labor-intensive manufacturing in the Penang (Malaysia) plant and production of original equipment with small lot sizes in Braga (Portugal). We stopped production of loudspeakers in Herne at the end of 1992 and transferred it to Malaysia.

Mobile Communications Division

Car radios and accessories, on-board display systems, car antennas, mobile-radio technology, location-finding and navigation systems, entertainment electronics, broadband communications

Production sites at Berlin, Braga (Portugal), Hildesheim, Leonberg, Penang (Malaysia), Vila Real (Portugal), Wolfenbüttel

Employees:	15,000 (1991: 17,320)
Sales:	3.0 (3.0)*) billion DM
Investments:	89 (134)*) million DM

*) The figures for the MotoMeter company for 1991 are year-to-date (half).

The interest of European motor-vehicle manufacturers in a central display and operating unit for car radios, on-board computers, phones, navigational aids, air conditioning, and displays in the cockpit is increasing. For this reason we concentrated all activities relating to the development of such Board Information Terminals (BIT) in a single product department.

We are working closely together with different motor-vehicle manufacturers in a cross-departmental project organization. The production startup is scheduled for 1994.

We launched a car radio with digital memory for traffic radio reports as a worldwide innovation. The traffic information memory (TIM)

stores the traffic radio reports even if the radio ist turned off. Thus current traffic reports are ready for call-up at the start of the trip.

The radio technology product group increased its sales by about 8 %. We solidified our leading market position in Germany in radio technology. Prices for mobile phones decreased significantly with the start of commercial operation of the new GSM-networks in Germany. Domestic demand for systems and terminals used in service and trunk radio communication increased. The supply to security organizations in the New States of Germany contributed significantly to this development.

We concentrated our aftermarket sales of home and office communications equipment in the Mobile Communications Division. This equipment includes desk phones, small private branch exchanges, answering machines and facsimile (Fax) units.

In the broadband communications sector, increases were recorded in the rental and service area especially in supplying homes with fiber-optic hook-ups.

MotoMeter increased its sales. The share of electronically controlled instruments increased. By the end of 1992, the Portuguese branch plant Vila Real started production deliveries of automotive on-board instruments to a Spanish original-equipment customer.

In the Mobile Communications Division, poor business performance as well as cost-reduction measures led to a decline in the number of employees by an annual average of 2,300.

The division invested 230 (1991: 192) million DM in research and development.

The results were below the 1991 level.

Stiffer competitive pressure in private communications technology

Competition intensified in the market for private communications technology. Domestic demand decreased in the course of the year; the stimulus expected from abroad did not materialize.

Sales of the Private Communications Division stagnated. This division combines Telenorma GmbH with its domestic and foreign subsidiaries as well as JS Télécom SA in France and TTN Sistemi di Comunicazione SpA in Italy which was renamed Robert Bosch Industriale e Commerciale SpA.

Private Communications Division

Products and services for private networks, terminals, security engineering, time-service and time-management systems, display equipment

Production sites at Brussels (Belgium), Caracas (Venezuela), Frankfurt am Main, Landstuhl, Madrid (Spain), Montceau-les-Mines (France), Munich, Rijswijk (Netherlands), Rödermark, Vienna (Austria)

Employees:	16,175 (1991: 17,740)
Sales:	2.75 (2.7) billion DM
Investments:	196 (143) million DM

In Germany and abroad the private-network product group established ISDN communication networks operating beyond local boundaries. In order to take even greater advantage of the opportunities in this growth market, we concluded a cooperative technical and marketing agreement with Digital Equipment Corporation, a large manufacturer of information equipment. This agreement applies to the hardware and software for network management and other computer-assisted applications in communications technology.

Our new Integral2 Plus TK-System allows small and medium-sized companies with a need of up to 48 stations to participate in ISDN. Among other things it permits mixed operation of digital and analog ports, has an integration-capable directory for 1,000 phone numbers and allows PC-assisted phoning.

We supplied the first units of our Integral 33 H ISDN-System which, with its multilingual display and menu-driven user interface, is

oriented towards the requirements of the international market. The system is suitable for use in foreign currency and securities trade at exchanges, brokers, banks and insurance companies as well as for operators of special private networks.

We reduced the development times for our terminals and reduced manufacturing costs. An order for about 1 million standard phones was placed by the German Postal Service Telekom (DBP Telekom). The production of phones and small phone systems was transferred from Munich and combined with our production at the Rödermark plant.

We expanded the product line of our time-service systems to include a multi-user time-management system on UNIX basis for personnel time recording and access control. It is programmable to adapt to different union and company agreements and thus suitable for individualized solutions.

Demand for security systems continued unchanged at a high level.

We introduced a new generation of the Universal Danger Warning System (UGM) to the market. In addition, we improved information processing and monitoring functions of our large security installations through a computer-assisted operating and display system.

For apartments and private houses, Telenorma presented an alarm system that integrates security and communications functions in a single phone set.

In June 1992 JS Télécom SA began operation of a new plant in Montceau-les-Mines. It combines production of the French company which until then was distributed among three locations. In Eastern and Southern France we expanded direct distribution by acquiring the contract dealership Centratel and Midi-Téchnique. Our Integral 33x communications system (with the designation IS3x) was the first European ISDN system to be approved in France.

In Italy we initiated measures to reorganize distribution at Robert Bosch Industriale e Commerciale SpA.

The Private Communications Division invested 206 (1991: 200) million DM in research and development. Results fell short of the previous year's level.

Growth in public communications

The Public Communications Division with ANT Nachrichtentechnik GmbH, ANT Nachrichtentechnik Radeberg GmbH, Teldix GmbH as well as Bosch Telecom Öffentliche Vermittlungstechnik GmbH increased its sales by about 9%. With sluggish business activity worldwide, the increase was attributable to the high demand in the New States of Germany. Approximately 60% of sales were attributable to sales to the German Postal Service (DBP Telekom). Key areas were cable transmission systems as well as radio relay and switching systems.

In 1992 we again participated in the development of the telecommunication infrastructure in the New States of Germany. As general contractor we worked on the establishment of complete phone networks. The contracts included switching technology, transmission technology and connections of cable networks up to homes. We employed 200 of the approximately 750 employees in Radeberg for planning, installation and service.

Synchronous Digital Hierarchy systems (SDH) are being introduced worldwide in communication networks and are gradually replacing conventional transmission systems. ANT completed the synchronous line equipment SLA4 and was thus the first supplier to create the prerequisites for deliveries to the SDH transport network of the German Postal Service (DBP Telekom).

Within a group of bidders, ANT received orders from Telekom to set up fiber-optic local networks with about 40,000 home installations. These networks are used for individual communication and to distribute TV programs.

For the first time the German Postal Service (DBP Telekom) invited proposals for their entire need for radio-relay systems for a period of three years. ANT won this contest for a major

portion of the planned SDH equipment program. The Swiss Postal Service also placed large orders with ANT for this technology.

Public Communications Division

Multiplex systems, cable transmission technology, network-management systems, telecommunication cable systems, radio relay, satellite and mobile radio systems, switching systems, network termination systems, special terminals (card phones, cryptographic equipment), traffic-control systems, avionics and navigation systems, video-conference systems.

Production sites at Backnang, Heidelberg, Limburg, Offenburg, Radeberg, Schwäbisch Hall

Employees:	8,895 (1991: 8,879)
Sales:	2.2 (2.0) billion DM
Investments:	123 (114) million DM

The former railroad system of the Old States of Germany, together with several electric utility companies and other customers, ordered narrow-band radio-relay systems. The LAN system DIKOS 210 and the network nodes FlexPlex XMPI form the switching basis for the communication networks of these customers.

In modern communications networks, network-management systems for the configuration and monitoring of transmission capacity are gaining major importance. For this purpose we developed the network monitoring system NSÜ which is characterized by a high degree of adaptability to varying requirements. The German Postal Service (DBP Telekom) started operation of the first NSÜ systems; foreign customers will also use this product.

Bosch Telecom Öffentliche Vermittlungstechnik GmbH participated in the optimization of the Common Channel Signalling System No. 7 (CCITT). From the Vietnamese Postal Administration the company received an order for a turnkey switching center with 18,000 line units and the associated local network in Hanoi; ANT supplied the transmission equipment.

With the successful launching and taking into operation of the third satellite of the DFS Copernicus system in October 1992, this national project is completed. ANT was responsible for the telecommunication payloads of all DFS satellites. The European programs for manned space travel, including HERMES, were cut substantially. We adjusted our activities to the situation and reduced the number of employees in this field.

Within the STORM project (Stuttgart Transport Organization by Regional Management) we are working together with other companies and agencies on the development of individual traffic-control systems. We developed systems and tested pilot projects for automatic electronic access controls and user fees. We received orders for collective control systems from several highway authorities. The acquisition of the common stock of Signalbau Huber AG strengthens our position as overall supplier of traffic-control systems.

Teldix GmbH intensified its activities in the civilian area. The deteriorating order situation in the defense field led to unsatisfactory utilization of production capacity.

ANT Nachrichtentechnik Radeberg GmbH builds components for switching systems, power supplies as well as racks and assemblies for multiplex and radio-relay units.

We are developing the Brazilian market for transmission equipment through Telemulti SA, one of the suppliers to Brazilian phone companies.

The division invested 306 (1991: 257) million DM in research and development.

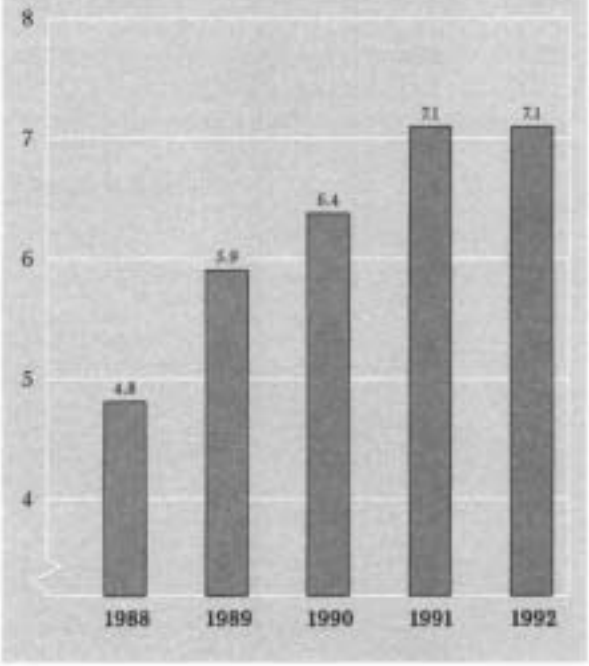
The result fell short of the previous year's level.

After starting D1 and D2 network operation in July 1992, the number of subscribers increased above expectation at Bosch Telecom Service GmbH.

The Western European market for electrical household appliances continued to be weak. In 1992, private consumption in the Old States of Germany increased by only 0.6% after an increase in the two previous years of 5.3% and 3.6% respectively.

Sales of our consumer goods business sector increased by 0.4% to 7.1 billion DM.

Bosch Group Worldwide
Sales of consumer goods 1988–1992
(billion DM)



Higher domestic demand for electrical household appliances

Bosch-Siemens Hausgeräte GmbH continued to expand its distribution and service network in Germany and abroad. Sales increased by about 1% to 7 billion DM. This was primarily attributable to 8% higher domestic sales of refrigerators, dishwashers, washing machines, ranges and hoods. In contrast the demand from foreign markets decreased noticeably.

In the area of electronic home-entertainment equipment, sales in Germany and abroad were lower than last year. The upturn expected from major sports events did not materialize.

Bosch-Siemens Hausgeräte GmbH, Munich	
Electrical household appliances, entertainment electronics	
Production sites at Athens (Greece), Berlin, Bretten, Estella (Spain), Dillingen, Giengen, Pamplona (Spain), Santander (Spain), Traunreut, Zaragoza (Spain)	
Capital stock:	240 (1991: 240) million DM
Equity interest:	50% Robert Bosch GmbH 50% Siemens AG
Employees:	23,570 (23,640)
Sales:	7.0 (6.9) billion DM
Export share of sales:	45 (48)%

Investments in fixed assets increased to 338 (1991: 293) million DM. Investments in research and development increased to 142 (1991: 136) million DM.

Stiffer competitive conditions negatively impacted company earnings. Operating results fell short of the previous year's level.

In September 1992 the company agreed to cooperate in various areas with Maytag Corporation, Newton, IA. Among other things, the mutual supply of appliances is being considered.

Over 1 million power tools built in Saxony

The world market for power tools weakened in 1992. It declined by 1% to 69 million units in terms of volume, and by 4% to 9.8 billion DM in terms of value.

While demand increased in Germany, it decreased in France, Great Britain, Sweden and Switzerland. On the whole, demand for power tools on the European market remained below the previous year's level. Sales also declined in Japan; the market stagnated in the USA.

Under these difficult conditions, the Power Tool Division maintained its sales at the previous year's level. We consolidated our position in the Western European market which represents about half of the world market in terms of value. We strengthened our presence in Eastern Europe through our own marketing organizations.

We expanded our production plant in Sebnitz/Saxony. The one-millionth Bosch power tool was produced there in June 1992.

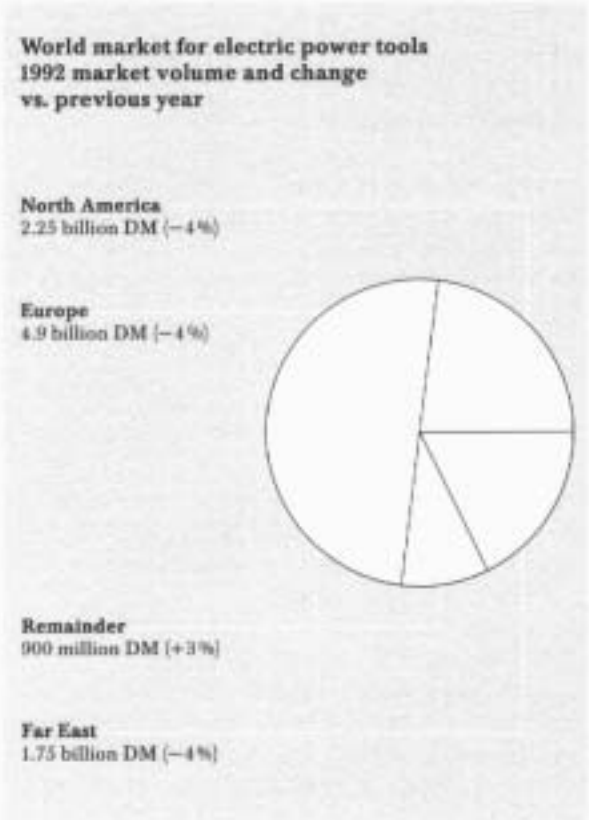
The Junkers Division strengthens its presence in Western Europe

After strong sales increases in the previous year, the Junkers Division again achieved a 2-digit growth rate in 1992. We maintained our market position in Germany; at the beginning of 1992 the high demand for gas heaters slowed down, because tax concessions for the replacement of central-heating installations expired at the end of 1991, and the demand backlog leveled off in the New States of Germany.

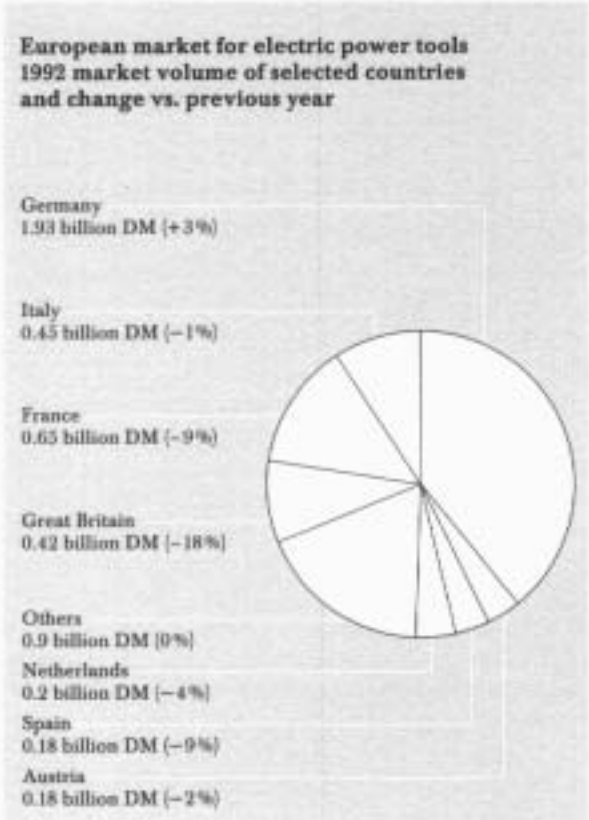
Business was expanded in Western Europe. The launching of numerous new products contributed to this development. Our Portuguese regional subsidiary Vulcano Termo-Domésticos achieved above-average growth with gas-fired water heaters.

We relocated a portion of our production of security and control systems to our affiliate ELBO Gas Appliances and Control Units Manufacturing and Trading Company in Turkey. We are opening up markets and production sites in Great Britain and Belgium through Worcester Group plc in which we hold a majority interest. We also strengthened our position with low-emission and cost-efficient units.

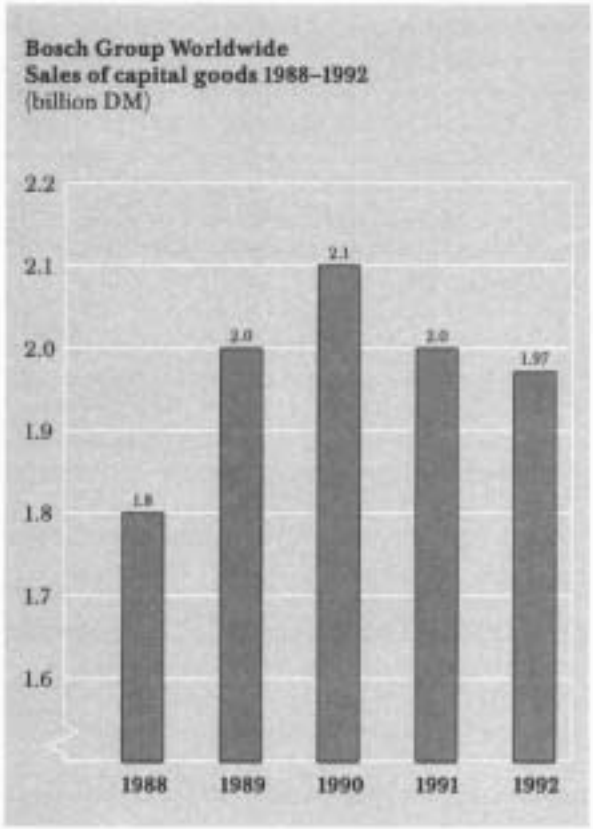
World market for electric power tools
1992 market volume and change vs. previous year



European market for electric power tools
1992 market volume of selected countries and change vs. previous year



The German mechanical-engineering industry has not yet come out of its slump. Incoming orders, production and capacity utilization decreased noticeably. This had a negative effect on the performance of our capital goods business sector. Sales dropped by 3.2% to 1.97 billion DM.



Declining business in fluid technology

Some customers in major consumer segments for fluid technology suffered significant sales declines. This affected our Hydraulics and Pneumatics Division. Additional sales activity in the New States of Germany and in the Far East as well as the introduction of new products mitigated the sales decline. We initiated additional cost-reduction measures at German and foreign locations in order to strengthen our competitiveness. At the same time we streamlined our organization.

In the vehicle-hydraulics area, demand for our digital electrohydraulic plow-depth control increased. We developed new applications on industrial trucks and motor vehicles for our compact units with DC motor.

In the industrial-hydraulics area, we launched a radial piston pump with electrohydraulic delivery control and pressure control. It increases the output of injection molding machines, improves the quality of the manufactured parts and saves energy. We further developed proportional and control valves in order to reduce the installation costs incurred by the user.

In the pneumatics area, we introduced a compact air-service unit for low flow rates, an ISO profile-cylinder series and an innovative valve-mounting system. By expanding our program, we adapted our cylinder switches and short-stroke cylinders to market requirements. Our customer-specific products enjoyed increasing interest among users in areas such as woodworking, printing presses and beverage-filling systems. The demand for our training systems increased.

Industrial equipment at the previous year's level

Despite difficult economic conditions, sales of the Industrial Equipment Division slightly exceeded the previous year's level. However, the performance of those areas directly dependent upon mechanical engineering was adversely affected by the continuing sluggish demand.

In the second half of the year, the product group for industrial control electronics presented to the industry a numerical control with open-structure software and hardware. This control offers the machine-tool manufacturers a higher level of technical functionality and thus more favorable possibilities for differentiation. We developed network assemblies for programmable controls which allow standardized communication between our high-performance controls and other automation components. In the area of drives we introduced a digital converter module with improved control and diagnostic capabilities. We consolidated our position in the market for resistance welding which is characterized by fierce price com-

petition. We developed a new converter series for the welding of aluminum car-body sheets.

Customer-investment restraint continued to make itself felt in the area of assembly and handling equipment, especially in the assembly installation sector. We supplied a large facility for the assembly and testing of installation-ready shock-absorber units to a motor-vehicle manufacturer.

We achieved sales growth with assembly-engineering modules in a difficult market. In particular, demand for mechanical components and transport systems, as well as the restructuring of distribution in France and Italy contributed to this result. The new robot generation was well received by the market. We developed a computer-assisted planning system for ergonomic design of manual workstations.

We continue to be a leading worldwide supplier of deburring equipment. With our electrochemical installations, we concentrated on improving the methods used for subsequent treatment. And on our thermal deburring machines we carried out design improvements to further increase their efficiency.

The test-equipment product group expanded its operations. It augmented its product program by including a new tester for vehicle-system analysis in the top-of-the-line segment. This performs complex diagnostic functions even on extensive electronic systems. In Germany the new regulations on special exhaust-gas analysis for catalytic converter and diesel vehicles, as well as pent-up demand in the New States of Germany led to an upturn in demand. The harmonization of test specifications for motor vehicles being implemented in the European Community created additional sales opportunities. We supplied a large number of dynamic brake analyzer stands for the regular vehicle inspection which is now starting in France.

Position in packaging machinery market consolidated

Our Packaging Machinery Division continues to be one of the leading worldwide suppliers. We increased sales and consolidated our market position. We achieved above-average growth in Germany, Central and North America as well as in the Far Eastern markets. Revenues declined in Western Europe outside Germany. Orders from Eastern European markets, which in the past were important for our business activity, were almost completely absent.

Our Crailsheim plant developed a large facility for the sterilization, filling and sealing of ampules in various sizes for a customer in the USA. Thus, worldwide, we were the first manufacturer to supply a liquid-medicin installation which is integrated into a computer-controlled pharmaceutical manufacturing process and which ensures a continuously high degree of uniform quality.

We are increasingly meeting customer demands for packaging techniques which are more economical in their use of packaging materials. We introduced new installations for packing coffee in environmentally compatible single bags without exterior packaging, we have already concluded initial business deals with domestic and Far Eastern customers.

We developed and manufactured cost-effective machines in Brazil, Japan and the USA with which we fulfilled specific market requirements in addition to expanding our product line.

We shut down our previous Brazilian manufacturing site in São Paulo and moved to a new plant in Osasco in the São Paulo metropolitan area in the third quarter of 1992. We intend to intensify our exports from this plant.

Investments in Subsidiaries and Affiliates abroad[1])

Europe

Austria
Robert Bosch AG[2]
Automotive equipment

Belgium
Robert Bosch Produktie NV
Automotive equipment

Belgium
NV Robert Bosch SA[2]

Denmark
Robert Bosch A/S[2]

France
Robert Bosch (France) SA[2]
Automotive equipment

France
Robert Bosch Electronique SA
Automotive equipment

France
Compagnie Parisienne d'Outillage à Air Comprimé SA[2]
Hydraulics, pneumatics

France
JS Télécom SA[2]
Private and public communications systems

Great Britain
Robert Bosch Ltd[2]
Automotive equipment

Italy
Robert Bosch SpA[2]

Norway
Robert Bosch A/S[2]

Portugal
Robert Bosch Lda[2]

Portugal
Vulcano Termo-Domésticos SA[2]
Thermotechnology

Portugal
ARP – Auto-Radio Portuguesa Lda
Car radios

Portugal
Blaupunkt Electronica Lda
Cassette drives for car radios

Sweden
Robert Bosch AB[2]

Switzerland
Robert Bosch AG[2]

Switzerland
Scintilla AG
Electric power tools and saw blades

Spain
Robert Bosch SA[2]
Automotive equipment

Turkey
Robert Bosch Motorlu Araçlar Yan Sanayi ve Ticaret AS[2]
Automotive equipment

America

Argentina
Robert Bosch Argentina SA[2]

Brazil
Robert Bosch Ltda[2]
Automotive equipment, electric power tools, car radios, hydraulic products

Brazil
WAPSA Auto Peças Ltda
Automotive equipment

Canada
Robert Bosch Inc.[2]

Mexico
Robert Bosch SA de CV[2]
Automotive equipment

USA
Robert Bosch Corporation[2]
Automotive equipment, packaging machinery

USA
Weldun International Inc.[2]
Industrial equipment

USA
Robert Bosch Fluid Power Corporation
Hydraulic components

USA
Airflow Research & Manufacturing Corporation
Automotive equipment

USA
Robert Bosch Capital Corporation
Finance-Holding

Asia, Africa, Australia

India
Motor Industries Co Ltd (MICO)[2]
Automotive equipment, hydraulic products, special machines

Japan
Bosch K.K.[2]

Malaysia
Robert Bosch (Malaysia) Sdn Bhd
Components for communications technology, automotive equipment, car radios

South Korea
Bosch Korea Ltd[2]

South Africa
Robert Bosch (Pty) Ltd[2]
Automotive equipment

Australia
Robert Bosch (Australia) Pty Ltd[2]
Automotive equipment

Status as of December 31, 1992

1) Important companies in which Bosch holds a majority interest, either directly or indirectly
2) Sales and service for the divisions of the Bosch Group

In 1992 sales of our regional subsidiaries including inter-company deliveries increased by 2.4% to 14.2 billion DM. Adjusted for price increases and currency fluctuations the increase amounted to 6.8%.

In the European Community outside Germany our regional subsidiaries achieved growth in real terms of 7.5%. In particular the companies in France, Great Britain and Portugal contributed to this growth. In contrast, sales in the rest of Europe decreased by 1.2% in real terms.

The strongest sales increases of all regions were achieved in North America at 17% in real terms. With the incipient economic recovery in the USA, all business sectors contributed to the sales growth. Combined, our companies in Africa, Asia and Australia achieved real growth of 4.7%.

Robert Bosch Internationale Beteiligungen AG, Zurich, is the holding company for foreign investments. At 488 (1991: 487) billion Swiss Francs, its financial investments remained practically unchanged. The company achieved a profit of 26 million Swiss Francs, an increase of 1 million Swiss Francs over the previous year. Shareholders received an unchanged dividend of 20 million Swiss Francs.

Europe

France

The overall French economy grew by 2%. Major increases in exports contributed primarily to this growth. In contrast investment activity and employment decreased further. After two years of decline, motor-vehicle production increased by 4%, primarily as a result of higher exports.

We increased our sales volume by 6.1%. In particular, original equipment business with gasoline and diesel fuel-injection equipment contributed to this increase.

We managed to hold our position in the declining power-tool market. Car-radio sales increased as a result of supplies to motor-vehicle manufacturers.

Robert Bosch (France) SA, Saint-Ouen (Paris)	
Manufacture of automotive equipment, hydraulic and pneumatic products as well as private communications equipment. Sales and service of Bosch products in France	
Production sites at Bonneville, Mondeville/ Caen, Montceau-les-Mines, Rodez, Rumilly, Vénissieux	
Capital stock:	350 (1991: 350) million F.Fr.
Equity interest:	100 (100)%
Employees:	5,970 (5,670)
Export share of sales:	44 (41)%

We further expanded our application center for gasoline injection and antilock braking systems in Saint-Ouen which provides the French motor-vehicle manufacturers with near-at-hand engineering.

The Compagnie Parisienne d'Outillage à Air Comprimé SA developed new industrial cylinders for international markets. The company opened up new market segments through the manufacture and supply of complete hydraulic systems.

Great Britain

In Great Britain, the gross national product declined again by 1% in 1992. The unemployment rate increased to 10%. The Pound Sterling came under strong devaluation pressure and was withdrawn from the European Monetary System. Throughout the year, the currency lost about 15% of its value relative to the DM and the US$.

Strong growth of production in the Cardiff plant determined the business activity of our British company. We maintained the supply volume to our original-equipment customers despite the continuing recession.

Robert Bosch Ltd, Denham	
Manufacture of automotive equipment. Sales and service of Bosch products in Great Britain	
Production site at Cardiff	
Capital stock:	48.3 (1991: 48.3) million £
Equity interest:	100 (100)%
Employees:	1,145 (835)
Export share of sales:	48 (32)%

The company reorganized the marketing of its aftermarket products. It intensified its sales of power tools to retailers. In addition to contract wholesalers, independent single-line wholesalers are supplied with automotive spare parts and aftermarket products. Sales of automotive aftermarket equipment increased.

Italy

Robert Bosch SpA, Milan	
Sales and service of Bosch products in Italy	
Capital stock:	36 (1991: 33) billion Lit.
Equity interest:	100 (100)%
Employees:	455 (355)

Total economic growth in Italy remained unchanged at 1%. Private and public consumption continued to be mainly responsible for the growth, while capital investments stagnated.

Company sales declined by 11% mainly due to the spin-off of the household-appliances business. Despite a continuing decline in motor vehicle production, OE sales slightly exceeded those of the previous year. Significant increases were achieved with gasoline fuel-injection and diesel equipment in particular. In contrast aftermarket sales declined. Major declines in the sale of communications equipment were not offset by higher sales of power tools or of test and heating-technology equipment.

The increase in the number of employees is attributable to the incorporation of TTN Sistemi di Comunicazione SpA.

Austria

Despite the weakening of the economy, our company increased its sales by 4.8%. The previous year's level was exceeded in production as well as in the aftermarket business. The company is coordinating the establishment of regional subsidiaries in Central and Eastern Europe and is responsible for the continued expansion of marketing in these countries.

Automotive Diesel Ges.m.b.H. was merged with Robert Bosch AG.

Robert Bosch AG, Vienna	
Manufacture of injection equipment for large diesel engines. Sales and service of Bosch products in Austria and Eastern Europe	
Production site at Hallein	
Capital stock:	200 (1991: 200) million ö.S.
Equity interest:	100 (100)%
Employees:	1,270 (1,290)
Export share of sales:	34 (31)%

Portugal

1992 economic growth continued to decline in Portugal to a rate of approximately 2%. The inflation rate declined from 11% to 9%.

Robert Bosch Lda, Lisbon	
Sales and service of Bosch products in Portugal	
Capital stock:	1,000 (1991: 1,000) million Esc
Equity interest:	100 (100)%
Employees:	130 (130)

Robert Bosch Lda increased its sales by 15%. Higher sales of car radios and automotive aftermarket products were mainly responsible for this increase. Declining construction industry business affected power-tool sales.

Vulcano Termo-Domésticos SA increased its sales by 31%. The number of employees increased by 132 to 741.

Auto-Radio Portuguesa Lda expanded car-radio production and increased its sales by 40%. Blaupunkt Electronica Lda which manufactures cassette drives for car radios increased its sales by 20%.

Sweden

Economic conditions continue to deteriorate in Sweden. The gross national product decreased by 2%. Despite major increases in interest rates, the Swedish Reserve Bank was unable to stabilize the exchange rate. The Swedish Crown lost more than 15% of its value. Swedish vehicle manufacturers intensified their exports but were unable to offset sluggish demand from the domestic market.

Sales of our company decreased by 8.2%. We strengthened our market position in the original-equipment area. Aftermarket sales remained weak especially in the area of electronic home-entertainment equipment.

Robert Bosch AB, Kista (Stockholm)	
Sales and service of Bosch products in Sweden	
Capital stock:	40 (1991: 40) million S.Kr.
Equity interest:	100 (100)%
Employees:	305 (580)

We stopped production of headlamps in Linköping as of June 30, 1992. A company managed by former executive employees continues the production of auxiliary headlamps for us.

Switzerland

The gross national product of Switzerland declined by 0.5% in real terms. Investments in equipment and construction decreased again; private consumption remained weak. Interest rates decreased along with a declining inflation rate.

Sales of Scintilla AG increased slightly by 1.1%. Sales of home tools decreased. In contrast, sales of industrial tools and gardening implements remained at the previous year's level. In particular, setbacks were suffered on the important European markets, while deliveries overseas increased. The company also achieved higher sales with accessories.

Scintilla AG, Solothurn	
Manufacture of power tools and saw blades	
Production sites at Derendingen, Solothurn, St. Niklaus (Wallis)	
Capital stock:	45 (1991: 36) million Sw.Fr.
Equity interest:	84.8 (84.8)%
Employees:	2,220 (2,280)
Export share of sales:	97 (97)%

The sales company Robert Bosch AG, Zurich, suffered a sales decline of 12%. In particular, sales of power tools, car radios and industrial equipment declined. Mobile-phone sales increased accompanied by a major price drop.

Spain

Robert Bosch SA, Madrid	
Manufacture of automotive equipment and industrial equipment. Sales and service of Bosch products in Spain	
Production sites at Alcalá de Henares, Aranjuez, Castellet, La Carolina, Madrid, Treto	
Capital stock:	14.9 (1991: 14.9) billion S.Ptas
Equity interest:	100 (100)%
Employees:	4,920 (5,470)
Export share of sales:	53 (48)%

At 1.5% in real terms, the Spanish economy grew more slowly than the year before. The inflation rate and unemployment rate were significantly higher than the average in the European Community. Motor-vehicle production increased by 2%.

Sales of our company decreased by 2.1%. Slight declines in aftermarket sales were more than offset by increases in original-equipment sales.

Starter battery operations were incorporated in a joint venture with Varta Batterie AG as of January 1, 1992.

America

USA

The economy started to recover in the USA. The gross national product increased by 2% in real terms. Sales of Robert Bosch Corporation increased by 15%.

North American motor-vehicle production increased by 7.6%. Our company increased its original-equipment sales by 20%. In particular, increases were achieved with antilock braking systems, gasoline- and diesel-injection equipment.

The improved economy and increased product penetration in the aftermarket helped to offset the impact of the continuing decline in European imports. Our company started to develop the service-parts market for Japanese vehicles. It also introduced a new line of mobile telephones.

The Robert Bosch Fluid Power Corporation in Racine, WI, acquired new customers for our line of proportional and closed-loop control valves. The company developed easy-to-service accumulators specifically to meet the requirements of the US market. Sales were negatively impacted by the weak demand from major customers.

Weldun International Inc. increased its sales. In a generally weak investment climate, the company took advantage of the demand from motor-vehicle manufacturers and their suppliers for specific automation solutions, for example for the assembly of airbag components.

Surftran Inc. expanded its product line by including modern industrial washing systems. Advantages of these systems are the integrated vacuum drying and the use of environmentally compatible acqueous solutions.

Robert Bosch Corporation, Broadview, IL

Manufacture of automotive equipment, power tools, hydraulic equipment, industrial equipment and packaging machinery. Sales and service of Bosch products in the USA

Production sites at Anderson, SC, Atlanta, GA, Belleville, MI, Bridgman, MI, Buchanan, MI, Charleston, SC, Juarez (Mexico), Madison Heights, MI, New Bern, NC, Racine, WI, Zanesville, OH

Capital stock:	100 (1991: 100) million US$
Equity interest:	100 (100)%
Employees:	5,140 (5,130)

Vermont American Corporation, a manufacturer of accessories for power tools, increased its sales.

As of October 1, 1992, Robert Bosch Power Tool Corporation merged its operations with the Skil subsidiary of Emerson Electric Co to form the joint-venture company S-B Power Tool Company, Chicago, IL.

Robert Bosch Corporation invested 51 (1991: 61) million US$ in fixed assets.

Mexico

The output of the Mexican motor-vehicle industry increased by close to 10%. For the first time over a million units were manufactured.

The capacities of our company were fully utilized in the first half of 1992. A 5-week strike at one of the motor-vehicle manufacturers affected production in the second half.

In spite of this, our company increased its sales by 32%.

The company added the sales and service of

communications equipment to its aftermarket business.

Robert Bosch SA de CV, Toluca	
Manufacture of automotive equipment. Sales and service of Bosch products in Mexico	
Production site at Toluca	
Capital stock:	36 (1991: 24) billion Mex.$
Equity interest:	96.2 (93.3)%
Employees:	2,225 (2,160)
Export share of sales:	9 (9)%

Brazil

The Brazilian economy continues in a deep recession. Efforts to combat inflation (annual rate: 1,150%) through a high-interest policy were unsuccessful. The political crises hampered major projects designed to stimulate the economy. A long-term economic and structural policy is not yet evident.

Robert Bosch Ltda, Campinas	
Manufacture of automotive equipment, hydraulic products, power tools, car radios, as well as products used in testing and measuring. Sales and service of Bosch products in Brazil	
Production sites at Aratú, Campinas, Curitiba, Manaus	
Capital stock:	470.4 (1991: 80.6) billion Cr$
Equity interest:	100 (100)%
Employees:	11,235 (12,620)
Export share of sales:	27 (18)%

Total Brazilian motor-vehicle output increased by 11%. Production of passenger cars increased by 14%. The share of smaller vehicles with low equipment levels increased. Production of commercial vehicles and buses declined by 21%. We were only partially able to offset the resultant drop in demand for diesel equipment through higher exports. The loss of purchasing power also made itself felt in the power-tool and aftermarket areas where sales decreased in the face of intensified price competition. On the whole, sales of our company declined by 2.6% in real terms.

Asia, Africa, Australia

India

Motor Industries Co Ltd (MICO), Bangalore	
Manufacture of automotive equipment, hydraulic products and special machinery. Sales and service of Bosch products in India	
Production sites at Bangalore, Nashik, Naganathapura	
Capital stock:	380 (1991: 380) million ind. Rs.
Equity interest:	51 (51)%
Employees:	9,870 (9,890)
Export share of sales:	14 (11)%

The Indian government lifted most of its import restrictions and eased up on foreign investments in the country. The value of the Indian rupee continued to decline relative to foreign currencies and made Indian export goods more competitive. Production of vehicles equipped with diesel engines increased by 3%.

Our company increased its sales by 28% and invested in the expansion of its capacity.

Japan

Bosch KK, Tokyo	
Sales and service of Bosch products in Japan	
Capital stock:	6.5 (1991: 6.5) billion Yen
Equity interest:	100 (100)%
Employees:	350 (360)

In 1992 the Japanese economy experienced a pronounced downturn, accompanied by a severe financial crisis. The real Gross National Product increased by only 1.5%.

As a result of unfavorable general conditions, aftermarket sales of our company again fell short of expectations.

Activities in the area of automotive equipment were strengthened by the opening of a new Technical Center in Yokohama as well as the establishment of a joint venture for electronics and security systems.

Malaysia

Production of high-level car radios and the expansion of car-speaker production enabled our company to increase its sales by 13%.

The company stopped production of manually calibrated car radios. Increases in productivity led to a decline in the number of employees. The company intensified its investments in measures promoting quality and the expansion of development.

Robert Bosch (Malaysia) Sdn Bhd, Penang	
Manufacture of automotive equipment, car radios, car speakers and electronic assemblies	
Production site at Penang	
Capital stock:	36 (1991: 15) million M.$
Equity interest:	100 (100)%
Employees:	3,130 (3,825)
Export share of sales:	93 (91)%

South Korea

South Korea's economic growth slowed down but still reached 5%.

Our company expanded its original equipment and aftermarket operations as a result of favorable general conditions.

Bosch Korea Ltd, Seoul	
Sales and service of Bosch products in South Korea	
Capital stock:	8.3 (1991: 4.4) billion Won
Equity interest:	100 (100)%
Employees:	44 (40)

South Africa

Internal political unrest continued and negatively impacted the economic climate. Most foreign companies curbed investments. The financial problems of many companies intensified as the recession continued.

Robert Bosch (Pty) Ltd, Johannesburg	
Manufacture of automotive equipment. Sales and service of Bosch products in South Africa	
Production site at Brits	
Capital stock:	17.1 (1991: 17.1) million R
Equity interest:	64 (64)%
Employees:	1,060 (1,070)

Sales of our company increased by 7.1%. Despite declining new-vehicle registrations, we maintained our position as market leader in the original-equipment field. The shift to full production of electronic control units proceeded according to plan. Sales of industrial equipment as well as hydraulic and pneumatic equipment were expanded.

Australia

The Australian economy recovered slowly from the worst recession for decades. New-vehicle registrations increased by 5%. Imported vehicles contributed significantly to this increase, and their sales rose by about 14%. In contrast production of motor vehicles declined by 6%.

Our company's sales declined by 6% in the

original-equipment area. Aftermarket sales increased by 20% due to the expansion of the product line.

Robert Bosch (Australia) Pty Ltd, Clayton (Melbourne)
Manufacture of automotive equipment and heating-technology products. Sales and service of Bosch products in Australia and New Zealand
Production site at Clayton (Melbourne)
Capital stock: 24 (1991: 24) million A$ Equity interest: 100 (100)% Employees: 1,110 (1,400)

Consolidated Balance Sheet as of December 31, 1992

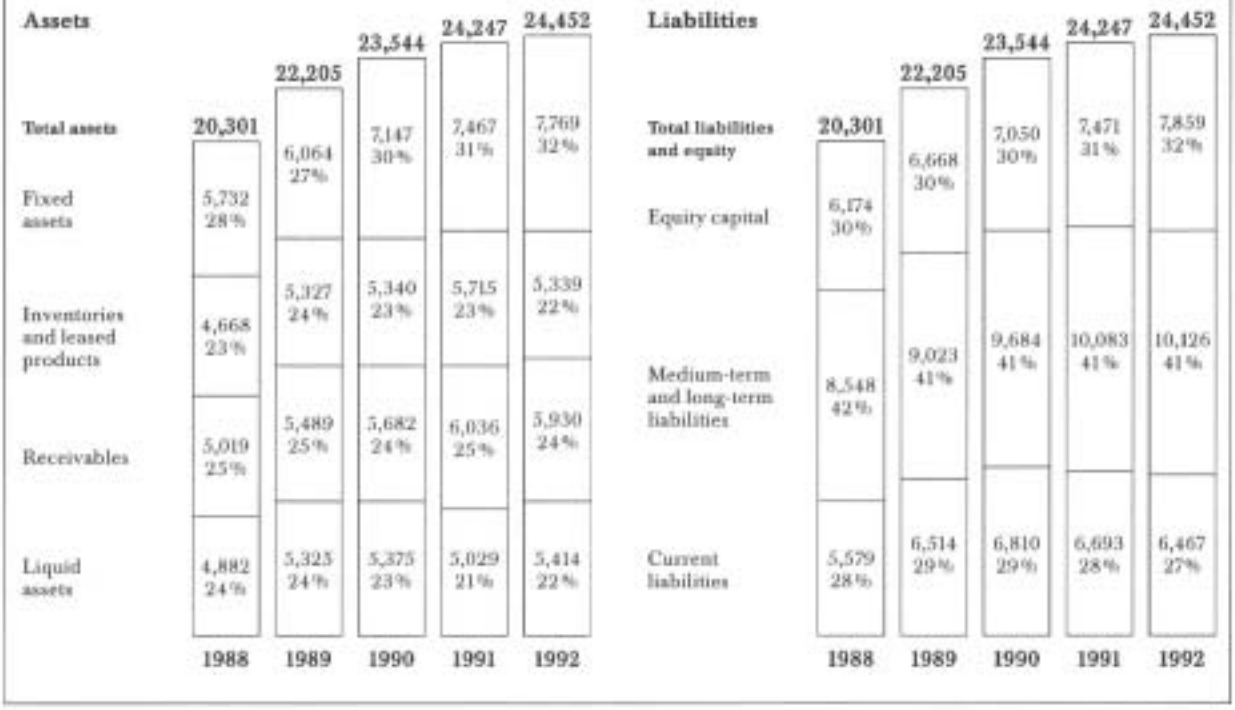
ASSETS	December 31, 1992		*December 31, 1991*
	million DM	million DM	*million DM*
FIXED ASSETS			
Intangible fixed assets			
Concessions, patents, trademarks and similar rights and assets as well as licenses on such rights and assets	70.8		*132.0*
Goodwill	–		*361.2*
Advance payments	1.2		*6.0*
	72.0		*499.2*
Tangible fixed assets			
Land, leasehold rights and buildings, including buildings on land owned by others	2,296.1		*2,161.0*
Production equipment and machinery	1,618.8		*1,561.0*
Other equipment, fixtures and furniture	2,042.8		*2,057.0*
Advance payments and construction in progress	523.8		*635.0*
	6,481.5		*6,414.0*
Financial investments			
Investments in affiliated companies	207.3		*45.3*
Loans to affiliated companies	7.1		*2.3*
Investments in associated companies	690.0		*262.2*
Other financial investments	129.3		*77.9*
Other loans	181.3		*166.3*
	1,215.0		*554.0*
		7,768.5	*7,467.2*
CURRENT ASSETS			
Leased products	1,079.2		*1,098.1*
Inventories	4,857.3		*5,166.1*
Advance payments made	89.1		*52.7*
Advance payments received	–686.1		*–602.0*
	4,260.3		*4,616.8*
Accounts receivable and other assets			
Trade accounts receivable	4,920.6		*4,938.5*
Receivables from affiliated companies	81.9		*152.4*
Receivables from companies in which interests are held	92.4		*66.5*
Other assets	967.0		*909.5*
	6,061.9		*6,066.9*
Marketable securities			
Treasury stock	–		*40.7*
Other securities	2,938.0		*2,816.9*
	2,938.0		*2,857.6*
Checks, cash on hand, in Federal Reserve Bank, postal checking accounts and cash in banks	2,302.3		*2,104.4*
		16,641.7	*16,743.8*
DEFERRED EXPENSES		41.9	*36.3*
		24,452.1	*24,247.3*

LIABILITIES	December 31, 1992		*December 31, 1991*
	million DM	million DM	*million DM*
EQUITY CAPITAL			
Capital stock	1,100.0		*800.0*
Capital surplus	1,140.0		–
Earned surplus	5,082.5		*6,153.2*
Unappropriated earnings	60.0		*42.5*
Minority interests	476.8		*475.7*
		7,859.3	*7,471.4*
ACCRUALS WITH VALUATION RESERVE PORTION		130.3	*289.0*
ACCRUALS			
Accrued pensions and similar obligations	4,597.8		*4,291.6*
Accrued taxes	279.1		*274.5*
Other accruals	6,687.1		*6,447.3*
		11,564.0	*11,013.4*
LIABILITIES			
Loans	0.7		*112.8*
Liabilities with banks	1,686.7		*1,798.2*
Accounts payable trade	1,488.2		*1,413.9*
Notes payable and acceptances	34.0		*36.5*
Payables to affiliated companies	150.2		*219.8*
Payables to companies in which interests are held	31.9		*39.9*
Other liabilities	1,481.2		*1,833.0*
		4,872.9	*5,454.1*
DEFERRED INCOME		25.6	*19.4*
		24,452.1	*24,247.3*

Consolidated Statement of Income for the period from January 1 to December 31, 1992

	1992		*1991*
	million DM	million DM	*million DM*
Sales		34,431.7	*33,600.4*
Increase/Decrease in finished goods and work in progress inventories		−225.9	*196.6*
Other capitalized costs		243.9	*262.8*
Total operating performance		34,449.7	*34,059.8*
Other operating income		1,677.7	*1,446.0*
Costs of material			
Raw materials, supplies and merchandise	−13,320.6		*−13,366.2*
Purchased services	−1,297.9		*−1,131.7*
		−14,618.5	*−14,497.9*
Personnel costs			
Wages and salaries	−9,633.2		*−9,249.2*
Social security, pension plans and support payments	−2,204.7		*−2,153.5*
		−11,837.9	*−11,402.7*
Depreciation of intangible and tangible fixed assets		−2,569.3	*−2,145.1*
Other operating expenses		−5,828.1	*−5,489.8*
Income from affiliated companies		13.4	*11.7*
Expenses from loss transfers		−9.2	*−82.8*
Income from long-term financial investments		9.3	*7.9*
Other interest and similar income		481.1	*457.6*
Income/Loss from interests in associated companies		15.3	*−48.9*
Amortization of financial investments and securities included in current assets		−146.6	*−94.7*
Interest and similar expenses		−277.2	*−309.5*
Income from ordinary activities		1,359.7	*1,911.6*
Taxes on income		−612.5	*−1,159.3*
Other taxes		−235.5	*−212.3*
Net income of the year		511.7	*540.0*
(including profits attributable to other shareholders)		(42.7)	*(48.3)*
(including loss allotable to other shareholders)		(2.7)	*(3.6)*

Bosch Group Worldwide
Balance Sheet Structure 1988–1992 (million DM and in %)



1992 Development of Fixed Assets

	Cost of acquisition or manufacture as of Jan. 1, 1992 million DM	Changes in the consolidated group million DM	Additions million DM
Intangible fixed assets			
Concessions, patents, trademarks and similar rights and assets as well as licenses on such rights and assets	594.4	1.5	120.4
Goodwill	923.2		29.6
Advance payments	5.9		0.8
	1,523.5	1.5	150.8
Tangible fixed assets			
Land, leasehold rights and buildings, including buildings on land owned by others	4,024.2	43.0	174.0
Production equipment and machinery	6,013.6	32.4	593.0
Other equipment, fixtures and furniture	7,993.1	58.6	867.4
Advance payments and construction in progress	705.0	25.7	404.1
	18,735.9	159.7	2,038.5
Financial investments			
Investments in affiliated companies	137.0	– 104.4	299.3
Loans to affiliated companies	2.3		6.9
Investments in associated companies	348.7		456.3
Other financial investments	172.5		75.4
Other loans	168.4	0.9	40.9
	828.9	– 103.5	878.8
	21,088.3	57.7	3,068.1

Transfers	Retirements	Cost of acquisition or manufacture as of Dec. 31, 1992	Depreciation cumulative to Dec. 31, 1992	Net book value as of Dec. 31, 1992	Depreciation current year	Write-ups current year
million DM	million DM	million DM	million DM	million DM	million DM	million DM
44.4	80.5	680.2	609.4	70.8	220.4	
-38.9	29.3	884.6	884.6	-	373.0	
-5.5		1.2		1.2		
	109.8	1,566.0	1,494.0	72.0	593.4	
225.5	35.2	4,431.5	2,135.4	2,296.1	259.5	2.2
185.1	267.1	6,557.0	4,938.2	1,618.8	671.7	
124.0	523.4	8,519.7	6,476.9	2,042.8	1,000.8	7.7
-534.6	14.8	585.4	61.6	523.8	43.9	0.2
	840.5	20,093.6	13,612.1	6,481.5	1,975.9	10.1
29.6	4.4	357.1	149.8	207.3	121.6	
	2.1	7.1		7.1		
	24.0	781.0	91.0	690.0	12.3	
-29.6		218.3	89.0	129.3	3.9	
	26.4	183.8	2.5	181.3	0.1	
	56.9	1,547.3	332.3	1,215.0	137.9	
	1,007.2	23,206.9	15,438.4	7,768.5	2,707.2	10.1

Capital-flow statement

	1992 million DM	1991 million DM
Sources of funds from business activity		
Net income of the year	512	540
Increase of low- and medium-term accruals	441	554
Depreciation of fixed assets	2,707	2,251
Cash Flow	3,660	3,345
Source of funds from financial transactions		
Increase of short-term accruals	110	169
Reduction of inventories and leased products	376	
Transfers and retirements of fixed assets (book values)	121	200
	607	369
Total source of funds	4,267	3,714
Application of funds		
Additions to fixed assets	−3,068	−2,705
Increase of inventories and leased products		−375
Increase of receivables and other assets	−1	−337
Decrease of accruals with valuation reserve portion	−159	−78
Decrease of liabilities	−575	−363
Dividends 1991/1990	−43	−43
Other changes in balance-sheet items	−143	−141
Total application of funds	−3,989	−4,042
Change in liquidity	278	−328

General remarks

The consolidated financial statements of Bosch Group Worldwide conform to the regulations of the Commercial Code.

In order to ensure better understanding of these financial statements, we included, as required, additional comments pertaining to individual items in the balance sheet and the profit and loss statements. The consolidated profit and loss statement follows the format of the total cost method.

The consolidated group

The consolidated statements include Robert Bosch GmbH and 22 domestic as well as 71 foreign subsidiaries. For the first time, we included our companies in the New States of Germany.
- ANT Nachrichtentechnik Radeberg GmbH, Radeberg
- Robert Bosch Elektrowerkzeuge GmbH, Sebnitz
- Robert Bosch Fahrzeugelektrik Eisenach GmbH, Eisenach

The following foreign manufacturing and sales companies were also added in 1992:
- ARP – Auto-Radio Portuguesa Lda, Braga, Portugal
- Blaupunkt Electronica Lda, Braga, Portugal
- Centratel SA, Besançon, France
- Midi Technique SA, Montpellier, France
- Robert Bosch Industriale e Commerciale SpA, Milan, Italy
- Robert Bosch Oy, Helsinki, Finland
- Sistemas Automotrices Eléctricos, SA de CV, Juarez, Mexico

The consolidated financial statements of Bosch-Siemens Hausgeräte GmbH were included pro rata pursuant to Section 310 of the Commercial Code.

In accordance with Section 296 of the Commercial Code, second Paragraph, companies lacking operations or having insignificant business volume were not included with the consolidated statements. In the case of relief-fund institutions, we waived inclusion pursuant to Section 296, Paragraph 1, digit 1 of the Commercial Code.

The equity valuation of significant interests in associated companies was applied in accordance with the book-value method. This valuation method pertained to 5 domestic and 11 foreign companies.

Principles of classification and evaluation

The financial statements of Bosch Group Worldwide, include the individual statements of our subsidiaries which conform to our uniform principles of classification. The auditors of our subsidiaries certified the accuracy of these statements.

We adhered to evaluation of lower of cost or market, and imparity of gain and loss recognition. Assets were never valued in excess of acquisition cost or cost of manufacture.

The financial statements of one foreign associated company were modified to comply with the uniform consolidation principles of the Consolidated Group. The remaining financial statements were not subjected to change.

Currency translation

Accounts receivable and accounts payable stated in foreign currencies were, in principle, converted to DM equivalents at the lower of the exchange rate at the date of origin or at the balance-sheet date. Anticipated losses of foreign-currency contracts were provided for by corresponding accruals.

For the conversion to DM of the financial statements in foreign currencies and the related profits or losses, we applied, in principle, average exchange rates at the balance-sheet date. Transactions pertaining to fixed assets were converted at mean average quarterly or annual DM equivalents respectively. Resulting differences were included with beginning balances of cost of acquisition or manufacture as well as in cumulative depreciation.

Tangible fixed assets of our subsidiaries in

Brazil were valued at their original carried-forward DM equivalents of cost of acquisition or manufacture. Depreciation is based on historical values. As in the past, the equity capital of these companies are also stated at historical DM equivalents.

Income and expenses were converted at average annual or quarterly exchange rates. Differences resulting from the application of average exchange rates versus year-end exchange rates were included with other expenses.

Consolidation principles

For capital-consolidation purposes, we applied the book-value method at the date of acquisition or at the date of first-time consolidation. Identifiable amounts subject to capitalization were allocated to the respective assets. Remaining amounts were included with goodwill. Differences resulting from amounts not subject to consolidation were included with earned surplus.

Interim results, sales, expenses and profits, as well as receivables and payables within the Consolidated Group were eliminated. Inventory values reported in the consolidated statements were based on cost of manufacture within the Group. The principle of the lower of cost or market was adhered to.

Profits from sales to the Consolidated Group by associated companies were not eliminated since they were insignificant. Tax liabilities resulting from consolidation measures in the amount of 9.3 million DM were provided for by adjusting other assets.

Fixed assets

Intangible fixed assets including goodwill from first-time consolidation of acquired interests, as well as of tangible fixed assets and financial assets, were stated at cost of manufacture or acquisition less applicable depreciation.

Depreciation was taken according to plans in either linear or accelerated modes. Low-cost items were fully depreciated during the year of acquisition. In addition, we made full use of special depreciation allowances in all host countries.

Extraordinary depreciation in the amount of 506 million DM pertained mostly to capitalized goodwill during the process of first-time consolidation.

In accordance with tax regulations, we deducted 194 million DM directly from the acquisition cost of tangible fixed assets. The depreciation was taken pursuant to Section 6b of the Income Tax Law, Section 3 of the Law for the Promotion of the Economy of the Border Regions, Section 14 of the Berlin Development Law, Section 4 of the Development Area Law, and pursuant to local tax laws in the host countries of our regional subsidiaries.

Interest-free and low-interest loans were adjusted to reflect present values by application of a uniform discount rate domestically and prevailing rates in foreign countries.

The development of fixed assets of the Consolidated Group is shown on pages 40 and 41. Additions to interests in associated companies include, in addition to contributions to equity capital and prorated earnings, the value of two newly-acquired companies.

The difference between the higher acquisition costs and the prorated equity capital of 149 million DM will be depreciated in accordance with a plan based on Section 312, second Paragraph, of the Commercial Code. Retirements include prorated losses and dividends.

Current assets

Inventories were valued at the lower of average cost of manufacture or market at the balance-sheet date. Costs of manufacture include direct costs plus a reasonable overhead. We applied the Lifo-valuation method generally at domestic companies. When permitted by local tax laws, our foreign subsidiaries also applied this valuation method.

Inventories from internal sales are stated at cost of manufacture as required by the Commercial

Code. Inherent risks of storage and distribution were provided for by write-downs. Additional downward adjustments were applied in cases of insufficient profitability and when production capacities were not fully utilized. Pursuant mainly to Section 80 of the Income Tax Regulations and also to local regulations, we depreciated 5.8 million DM.

Accounts receivable and other assets were stated at nominal values minus deductions for identifiable individual risks as well as general credit risks. Interest-free or low-interest receivables with maturities of more than one year were discounted.

Maturities:	Maturities of more than one year	
	1992 million DM	1991 million DM
Trade accounts receivable	23	14
Receivables from companies in which we hold financial interests	2	2
Other assets	306	417

Marketable securities included in current assets were valued at the lower of acquisition cost or market. With regard to potential future market fluctuation, we depreciated 0.8 million DM during the year.

Equity capital

The subscribed capital stock of 1,100 million DM and the capital surplus of 1,140 million DM correspond to the respective balance-sheet items of Robert Bosch GmbH.

Revenue surplus accounts consist of the following:

Unappropriated earnings of the Consolidated Group are identical to those of Robert Bosch GmbH.

	1992 million DM	1991 million DM
Revenue surplus accounts of Robert Bosch GmbH	1,671	2,477
Surplus for treasury stock		41
Other earned surplus	3,411	3,635
	5,082	6,153

Liabilities

Accruals with valuation reserve portion were formed pursuant to Sections 6b and 52, paragraph 8 of the Income Tax Law, Section 31, paragraph 3 of the Berlin Development Law, Section 3 of the Law for the Promotion of the Economy of the Border Regions, Section 1 of the DDR Investment Law. Our foreign subsidiaries followed local regulations with respect to such risks.

In determining the size of accruals, we provided for all identifiable risks.

Pension accruals and similar liabilities were determined by application of actuarial principles and were discounted to reflect present or partial values. For domestic companies, we used a 6% discount rate, while regional subsidiaries used discount rates prevailing in the respective countries.

Liabilities were stated at the amounts owed. Other liabilities include indebtedness to shareholders (Robert Bosch Stiftung GmbH) in the amount of 43.5 million DM.

Of liabilities, 180 million DM were secured by mortgages and 55 million DM by other liens.

Included in the other liabilities are tax liabilities in the amount of 164 million DM (1991: 185 million DM) and liabilities pertaining to social benefits in the amount of 246 million DM (1991: 340 million DM).

Maturities:	Maturities of less than one year		Maturities of more than five years
	million DM 1992	million DM 1991	million DM 1992
Bonds		112	
Bank loans	839	902	200
Accounts payable trade	1,488	1,413	
Notes and acceptances	34	37	
Payables to affiliated companies	32	117	91
Payables to companies in which we own interests	32	40	
Other liabilities	882	1,027	314
	3,307	3,648	605

Due to our partnership in two foreign companies we are jointly and severally liable in accordance with legal requirements.

Other financial obligations of significance for an opinion on the financial condition do not exist.

Contingencies not included in the balance sheet nor as balance-sheet notes	million DM
Contingent liabilities from the issuance or transfer of notes	282
Including affiliated companies	2
Including secured by liens	3
Contingent liabilities from guarantees	485
Including affiliated companies	39
Contingent liabilities from warranties	84
Contingent liabilities for third-party liabilities	10

Details to the consolidated profit and loss statement

For social security and pensions we spent a total of 2.2 billion DM including 554 million for pensions (1991: 561 million DM).

Income from financial interests amounted to 13.4 million DM, including 0.4 million DM from affiliates.

Breakdown of sales: 1992 sales by business sectors	million DM	%
Automotive equipment	17,225	50.0
Communications-technology	8,172	23.7
Consumer goods	7,070	20.6
Capital goods	1,965	5.7
	34,432	100.0
1992 sales by regions	million DM	%
EC countries	26,879	78.1
Other European countries	2,470	7.2
America	3,244	9.4
Asia, Africa	1,570	4.5
Australia, Oceania	269	0.8
	34,432	100.0

Income from loans amounted to 9.3 million DM.

The results from associated companies include profits and losses as well as required depreciation.

Other interest and similar income amounted to 481 million DM including 0.7 million (1991: 1.2 million DM) from affiliates. Of 277 million DM interest and similar expenses, 8.0 million DM are attributable to affiliated companies (1991: 8.2 million DM).

Expenses resulting from additions to accruals with valuation reserve portion are included in other operating expenses in the amount of 18 million DM. Income from the reversal of accruals with valuation reserve portion is included in other operating income in the amount of 215 million DM.

The impact of tax allowances on the profit for the fiscal year, as well as in former years, and the size of future burdens from the respective valuations are of secondary significance.

Additional details

Average numbers of employees during 1992 were as follows:

	Total	Including BSHG (prorated)
Factory workers	111,345	7,656
Salaried employees	59,320	3,907
Apprentices/ Trainees	6,518	220
	177,183	11,783

In 1992, aggregate compensation of the members of the Board of Management of Robert Bosch GmbH amounted to 11.3 million DM. Former members of the Board and their dependents received 6.6 million DM and members of the Supervisory Council 1.0 million DM.

Accruals at Robert Bosch GmbH for pension liabilities for former members of the Board of Management and their dependents amounted to 61.0 million DM.

The members of the Supervisory Council and the Board of Management of Robert Bosch GmbH are listed on Page 63.

Shareholdings of Bosch Group Worldwide

A listing of the shareholdings of the consolidated Bosch Group will be deposited with the commercial registry of the Stuttgart Circuit Court.

Stuttgart, April 30, 1993

ROBERT BOSCH GMBH
The Board of Management

Auditor's opinion

The accounting and the consolidated statements, which we have audited in accordance with professional standards, comply with legal provisions. With due regard to the generally accepted accounting principles the consolidated financial statements give a true and fair view of the company's assets, liabilities, financial position and profit and loss. The management report to the consolidated financial statements is consistent with its content.

Stuttgart, April 30, 1993

Schitag
Schwäbische Treuhand-Aktiengesellschaft
Wirtschaftsprüfungsgesellschaft
Steuerberatungsgesellschaft

Dörner
Wirtschaftsprüfer

Wolff
Wirtschaftsprüfer

Balance Sheet as of December 31, 1992

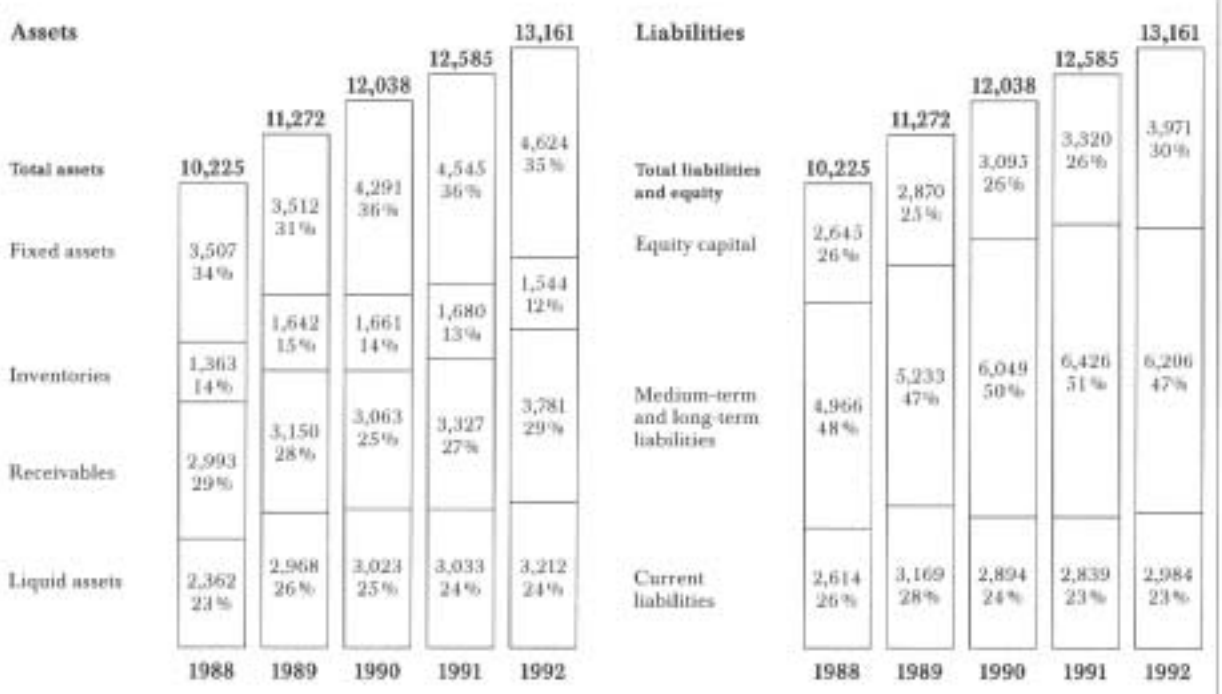
ASSETS	December 31, 1992 million DM	million DM	*December 31, 1991 million DM*
FIXED ASSETS			
Intangible fixed assets			
Concessions, patents, trademarks and similar rights and assets as well as licenses on such rights and assets	–		–
Tangible fixed assets			
Land, leasehold rights and buildings, including buildings on land owned by others	473.6		*510.5*
Production equipment and machinery	380.7		*381.7*
Other equipment, fixtures and furniture	1,204.5		*1,251.3*
Advance payments and construction in progress	177.8		*228.0*
	2,236.6		*2,371.5*
Financial investments			
Investments in affiliated companies	1,894.3		*1,830.2*
Other financial investments	378.2		*226.5*
Loans to companies in which interests are held	43.0		*50.2*
Other loans	71.7		*66.2*
	2,387.2		*2,173.1*
		4,623.8	*4,544.6*
CURRENT ASSETS			
Inventories			
Raw materials and supplies	399.7		*437.1*
Work in progress, uncompleted projects	371.4		*442.8*
Finished products and merchandise	849.2		*894.8*
Advance payments made	1.5		*9.6*
Advance payments received	–77.7		*–104.4*
	1,544.1		*1,679.9*
Accounts receivable and other assets			
Trade accounts receivable	1,829.7		*1,793.5*
Receivables from affiliated companies	1,368.9		*955.9*
Receivables from companies in which interests are held	93.8		*100.7*
Other assets	590.9		*513.0*
	3,883.3		*3,363.1*
Marketable securities	2,109.5		*2,027.0*
Checks, cash on hand, in Federal Reserve Bank, postal checking accounts and cash in banks	986.2		*956.3*
		8,523.1	*8,026.3*
DEFERRED EXPENSES		13.8	*14.4*
		13,160.7	*12,585.3*

LIABILITIES	December 31, 1992 million DM	million DM	*December 31, 1991 million DM*
EQUITY CAPITAL			
Capital stock	1,100.0		*800.0*
Capital surplus	1,140.0		
Earned surplus			
Legal reserve	110.0		*80.0*
Surplus appropriated for plant maintenance	845.0		*845.0*
Surplus appropriated for 1993 capital-stock increase	100.0		
Unappropriated surplus	615.8		*1,552.0*
	1,670.8		*2,477.0*
	60.0		*42.5*
		3,970.8	*3,319.5*
ACCRUALS WITH VALUATION RESERVE PORTION		46.5	*164.7*
ACCRUALS			
Accrued pensions	3,312.5		*3,171.0*
Accrued taxes	71.7		*85.2*
Other accruals	4,679.6		*4,577.4*
		8,063.8	*7,833.6*
LIABILITIES			
Liabilities with banks	107.4		*142.1*
Accounts payable trade	253.7		*212.1*
Payables to affiliated companies	243.8		*152.3*
Payables to companies in which interests are held	21.7		*15.4*
Other liabilities	450.6		*745.5*
		1,077.2	*1,267.4*
DEFERRED INCOME		2.4	*0.1*
		13,160.7	*12,585.3*

Statement of Income for the period from January 1 to December 31, 1992

	1992		*1991*
	million DM	million DM	*million DM*
Sales		19,375.4	*18,474.1*
Increase/Decrease in finished goods and work-in-progress inventories		−125.6	*10.0*
Other capitalized costs		62.9	*68.2*
Total operating performance		19,312.7	*18,552.3*
Other operating income		1,362.0	*1,137.5*
Costs of materials			
Raw materials, supplies and merchandise	−9,067.7		*−8,387.4*
Purchased services	−741.5		*−733.5*
		−9,809.2	*−9,120.9*
Personnel costs			
Wages and salaries	−4,768.7		*−4,633.9*
Social security, pension plans and support payments	−1,001.1		*−1,051.3*
		−5,769.8	*−5,685.2*
Depreciation of intangible and tangible fixed assets		−945.8	*−848.7*
Other operating expenses		−3,066.7	*−2,875.0*
Income from profit transfer agreements		133.4	*128.8*
Income from affiliated companies		135.2	*112.0*
Expenses from loss transfers		−157.2	*−75.2*
Income from long-term financial investments		3.3	*3.7*
Other interests and similar income		380.6	*344.0*
Amortization of financial investments and securities included in current assets		−245.9	*−342.7*
Interest and similar expenses		−88.5	*−93.4*
Income from ordinary activities		1,244.1	*1,237.2*
Taxes on income		−382.7	*−866.2*
Other taxes		−107.6	*−103.5*
Income of the year		753.8	*267.5*
Transfers from surplus accounts		1,031.2	
Additions to surplus accounts			
Legal reserve	−30.0		*−*
Surplus for plant maintenance			*−75.0*
Surplus for 1993 capital-stock increase	−100.0		*−*
Other surplus	−95.0		*−150.0*
		−225.0	*−225.0*
		1,560.0	*42.5*
			−
Advanced distribution of dividends		−1,500.0	
Net income of the year		60.0	*42.5*

Robert Bosch GmbH
Balance Sheet Structure 1988–1992 (million DM and in %)



1992 Development of Fixed Assets

	Cost of aquisition or manufacture as of Jan. 1, 1992 million DM	Additions million DM	Transfers million DM
Intangible fixed assets			
Concessions, patents, trademarks and similar rights and assets as well as licenses on such rights and assets	37.4	72.3	
Tangible fixed assets			
Land, leasehold rights and buildings, including buildings on land owned by others	1,252.9	27.1	73.0
Production equipment and machinery	1,917.1	174.2	47.2
Other equipment, fixtures and furniture	4,698.9	420.2	97.2
Advance payments and construction in progress	292.6	153.6	−217.4
	8,161.5	775.1	
Financial investments			
Investments in affiliated companies	4,118.3	384.6	29.6
Other financial investments	485.7	192.5	−29.6
Loans to companies in which interests are held	50.2		
Other loans	66.2	18.3	
	4,720.4	595.4	
	12,919.3	1,442.8	

Retirements million DM	Cost of acquisition or manufacture as of Dec. 31, 1992 million DM	Depreciation cumulative to Dec. 31, 1992 million DM	Net book value as of Dec. 31, 1992 million DM	Depreciation current year million DM	Write-ups current year million DM
37.4	72.3	72.3		72.3	
1.2	1,351.8	878.2	473.6	120.3	
87.4	2,051.1	1,670.4	380.7	193.9	
227.7	4,988.6	3,784.1	1,204.5	531.3	
6.3	222.5	44.7	177.8	28.0	0.2
322.6	8,614.0	6,377.4	2,236.6	873.5	0.2
135.2	4,397.3	2,503.0	1,894.3	210.5	
0.7	647.9	269.7	378.2	20.1	
7.2	43.0		43.0		
12.8	71.7		71.7		
155.9	5,159.9	2,772.7	2,387.2	230.6	
515.9	13,846.2	9,222.4	4,623.8	1,176.4	0.2

Capital-flow statement

	1992 million DM	1991 million DM
Sources of funds from business activity		
Dividends	60	43
Increase of low- and medium-term accruals	190	399
Increase of capital stock	300	
Increase of surplus accounts	334	225
Depreciation of fixed assets	1,176	1,177
Cash Flow	2,060	1,844
Source of funds from financial transactions		
Increase of short-term accruals	41	138
Increase of deferred income	2	
Reduction of inventories and leased goods	136	
Transfers and retirements of fixed assets (book values)	188	62
	367	200
Total source of funds	2,427	2,044
Application of funds		
Additions to fixed assets	−1,443	−1,493
Increase of inventories and leased goods		−19
Increase of receivables and other assets	−520	−264
Decrease of accruals with valuation reserve portion	−118	−64
Decrease of liabilities	−190	−151
Dividends 1991/1990	−43	−43
Total application of funds	−2,314	−2,034
Change in liquidity	113	10

1992 Added Net Value

Source of Added Net Value	million DM
Sales	19,375
– Decrease in work in progress and finished-goods inventories	125
+ Other costs capitalized	63
= Total operating performance	19,313
+ All other income	2,014
= Total company performance	21,327
– Costs excluding depreciation	
Materials	9,809
Expenditures from loss transfers	157
Other operating expenses	3,067
= Added net value before depreciation	8,294
– Cost of depreciation	
Depreciation of intangible and tangible fixed assets	946
Write-offs of financial investments and securities included in current assets	246
= Added net value (after depreciation)	7,102

Distribution of Added Net Value		million DM	%
Added Net Value		7,102	100.0
Thereof to employees			
Wages and salaries, social-security levies, pension plans and support payments		5,770	81.2
to Company			
Equity capital			
Advanced distribution of dividends	–1,500		
Reduction of corporation income tax due to advanced dividends distribution	469		
Repayment	1,440		
Transfer from net income of the year	225	634	8.9
to Government			
Taxes			
From the company	490		
From the shareholders due to "distribute/get-back method"	60	550	7.8
to Lenders			
Interest		88	1.3
to Shareholders			
Dividends		60	0.8

Appendix Robert Bosch GmbH

General remarks

The financial statements of Robert Bosch GmbH for the fiscal year 1992 conform in classification and valuation to the provisions of the German Commercial Code.

In order to ensure better understanding of these financial statements, we included in the appendix comments pertaining to certain items of the balance sheet as well as the profit and loss statements as required.

The profit and loss statement follows the format of the total cost method.

On November 24, 1992, the shareholders of Robert Bosch GmbH resolved to increase the company's capital stock to 1,200 million DM.

As a first step, the 1992 capital was increased by means of the "pay-out/take-back" method. To that effect, an advanced distribution of dividends in the amount of 1,500 million DM was made to shareholders. This amount was derived from net-of-income-tax surplus accounts accumulated years ago in the amount of 1,031 million DM, and from a corresponding reduction of the corporation income tax of 469 million DM caused by the dividends distribution. The shareholders contributed the net amount of the distribution in the amount of 1,440 million DM back to Robert Bosch GmbH in such a manner that shareholders' capital increased nominally by 300 million DM from 800 million DM to 1,100 million DM, and a premium of 1,140 million DM was transferred to surplus accounts.

In a second step in 1993, the shareholders' capital will be nominally increased to 1,200 million DM from 1,100 million DM out of corporate funds.

Fixed assets

Fixed assets are stated at cost of manufacture or acquisition. Depreciation was based on established guidelines and, whenever permitted by tax laws, by application of accelerated depreciation methods.

Straight-line depreciation was used when resulting depreciation amounts were higher. Shift differentials were added to straight-line depreciation when equipment was used in multi-shift operations. Items of minor value were fully depreciated in the year of acquisition.

We made use of extraordinary depreciation in the amount of 232 million DM on such capital assets, which, at the balance-sheet date had to be adjusted to lower values.

We applied depreciation in the amount of 126 million DM directly to the purchase costs of capital assets pursuant to the tax regulations of Section 3 of the Law for the Promotion of the Economy of the Border Regions, Section 6b of the Income Tax Law, Section 14 of the Berlin Development Law, and Section 4 of the Development Area Law.

Interest-free and low-interest loans were discounted to reflect present values. We retained, pro rata, lower valuations when discounts at the date of issue were lower.

The 1992 development of fixed assets is presented on pages 52 and 53.

Inventories

Raw materials, supplies and merchandise were valued at the lower of average purchase cost or market.

The valuation of work-in-progress and finished goods was based on production costs pursuant to Section 255, paragraph 2 of the Commercial Code to the extent that they had to be capitalized in accordance with the German Tax Laws. We used the Lifo-valuation method in order to arrive at the cost of purchase or manufacture of certain similar inventory items.

We provided for risks inherent with warehousing and distribution by grouping inventories in different valuation categories. We also recognized future valuation changes through appropriate deductions. When production capacities were not fully utilized and also in cases of unfavorable returns on certain products, we applied special write-downs.

By application of Section 80 of the Income Tax Regulations we depreciated 1.2 million DM.

Accounts receivable, other assets, marketable securities

Accounts receivable and other current assets were valued at acquisition cost. We provided for all recognizable individual risks and general credit risks by correlated write-downs. Dated receivables and notes were discounted to reflect present values. Accounts receivable in foreign currencies were stated at the lower of the exchange rate at acquisition or balance-sheet dates. The portfolio of securities consisted mainly of stock-exchange listed debentures. Securities were valued at the lower of acquisition cost or stock-exchange prices in application of existing valuation principles.

Maturities:	Maturities of more than one year	
	1992 million DM	1991 million DM
Trade accounts receivable	10	5
Receivables from affiliated companies	457	489
Other assets	267	385

Accruals with valuation reserve portion

The amounts were computed pursuant to Section 3 of the Development Law for the Promotion of the Economy of the Border Regions and pursuant to Section 1 of the DDR-Investment Law.

Accruals

The size of accruals provides for all identifiable risks.

Pension accruals were computed in full by application of actuarial principles at their fractional or present values. For the most part, valuations were based on an interest factor of 5.5%. New additions were also computed by application of a 5.5% interest factor.

Other accruals provide for obligations in the areas of sales, personnel and fringe benefits, obligations from regional subsidiaries as well as miscellaneous other risks. For deferred maintenance, we also included accruals for expenditures which will be incurred from four to twelve months after the close of the fiscal year.

Liabilities

All liabilities are stated at amounts owed. Liabilities in foreign currencies are stated at the higher of exchange rates at the date of origination or at balance-sheet date.

Liabilities in the amount of 45.5 million DM were secured by mortgages.

Included with other liabilities are tax liabilities in the amount 29.8 million DM (1991: 35.3 million DM) as well as liabilities for social benefits

Maturities:	Maturities		
	one year or less		more than five years
	1992 million DM	1991 million DM	1992 million DM
Bank loans	6	30	8
Accounts payable trade	253	212	–
Payables to affiliated companies	226	152	–
Payables to companies in which we hold interests	22	15	–
Other liabilities	336	332	112
	843	741	120

in the amount of 128 million DM (1991: 223 million DM). Liabilities with shareholders amounted to 43.5 million DM (Robert Bosch Stiftung GmbH).

Contingencies

Contingencies not included in the balance sheet nor mentioned in the balance-sheet notes (million DM)	
Contingent obligations from issuance or transfer of notes	120
Contingent obligations from guarantees	481
including affiliated companies	196
Contingent liabilities from warranties	83

Together with Siemens AG, Robert Bosch GmbH is a shareholder in the holding company of Bosch-Siemens Hausgeräte GmbH. This holding company is governed by civil law.

Between this holding company and Bosch-Siemens Hausgeräte GmbH exists a control and profit-transfer agreement.

Other financial obligations of any significance for an opinion on the financial statements do not exist.

Details to the profit and loss statement

For social security and similar benefits, and for pensions and support payments, we expensed 1,001 million DM including 278 million DM for pension payments (1991: 350 million DM).

Income from affiliated companies amounted to 135 million DM.

This amount includes 122 million DM (1991: 100 million DM) from companies in the consolidated group.

Other interest and similar income amounted to 381 million DM including 21.6 million DM (1991: 6.4 million DM) from affiliated companies. Of interest and similar expenses in the amount of 88.5 million DM, 46.1 million DM (1991: 45.4 million DM) are attributable to affiliated companies.

Income from the reversal of accruals with valuation reserve portion in the amount of 118 million DM are included with other income.

The reduction of income taxes corresponds mainly to the transactions in connection with the increase in shareholders capital by the mentioned "pay-out/take-back" method (see page 56).

The application of tax allowances and their impact on profits of the current fiscal year as well as in former years, and also the size of future burdens from such valuations are of minor importance.

Other details

Aggregate compensation of the members of the

Breakdown of sales:

1992 sales by business sectors:	million DM	%	1992 sales by regions:	million DM	%
Automotive equipment	14,737	76.1	EC countries	16,038	82.8
Communications technology	900	4.6	Rest of Europe	1,314	6.8
Consumer goods	2,087	10.8	America	1,153	5.9
Capital goods	1,560	8.0	Asia, Africa,	777	4.0
Others	91	0.5	Australia, Oceania	93	0.5
	19,375	100.0		19,375	100.0

Board of Management amounted of 10.4 million DM in 1992. Former members of the Board of Management and their dependents received 6.6 million DM and members of the Supervisory Council 1.0 million DM.

Accruals for pension liabilities to former members of the Board of Management and their dependents amounted to 61.0 million DM.

Members of the Supervisory Council and of the Board of Management are listed on page 63.

Average number of employees during 1992:	
Factory workers	46,645
Salaried employees	20,995
Apprentices	2,796
	70,436

Shareholdings of Robert Bosch GmbH

Except for insignificant interests, a listing of the shareholdings of Robert Bosch GmbH is included on pages 60 and 61. A complete listing of the shareholdings of the consolidated Bosch Group will be submitted to the commercial registry of the Stuttgart Circuit Court.

Stuttgart, March 30, 1993

ROBERT BOSCH GMBH
The Board of Management

Auditor's opinion

The accounting and the annual financial statements, which we have audited in accordance with professional standards, comply with legal provisions. With due regard to the generally accepted accounting principles the annual financial statements give a true and fair view of the company's assets, liabilities, financial position and profit and loss. The management report is consistent with the annual financial statements.

Stuttgart, March 30, 1993

Schitag
Schwäbische Treuhand-Aktiengesellschaft
Wirtschaftsprüfungsgesellschaft
Steuerberatungsgesellschaft

Dörner
Wirtschaftsprüfer

Wolff
Wirtschaftsprüfer

Shareholdings of Robert Bosch GmbH (as of December 31, 1992)

Name and location of the company	Currency	Exchange rate 100 units of local currency	Owned[1] %	Equity Capital millions in local currency	Profit or Loss millions in local currency
Germany					
Anlagenvermietung GmbH, Stuttgart	DM		50	32.5	17.2
ANT Nachrichtentechnik GmbH, Backnang	DM		100[2]	322.9	45.0
ANT Nachrichtentechnik Radeberg GmbH, Radeberg	DM		100	10.0	EAV[3]
Blaupunkt-Werke GmbH, Hildesheim	DM		100	183.4	EAV
Bosch-Siemens Hausgeräte GmbH, Munich[4]	DM		50	812.8	74.1
Bosch Telecom Öffentliche Vermittlungstechnik GmbH, Eschborn	DM		100	50.8	16.0
Hans Feierabend GmbH, Einbeck	DM		40	4.6	–2.4
MB Video GmbH, Peine	DM		35	37.4	3.0
MotoMeter GmbH, Leonberg	DM		100	25.1	EAV
Robert Bosch Elektronik GmbH, Salzgitter	DM		100	22.8	EAV
Robert Bosch Elektrowerkzeuge GmbH, Sebnitz	DM		100	14.7	EAV
Robert Bosch Fahrzeugelektrik Eisenach GmbH, Eisenach	DM		97	38.0	EAV
Robert Bosch Industrieanlagen GmbH, Stuttgart	DM		100	91.0	EAV
Signalbau Huber AG, Munich	DM		100[5]	73.9	3.1
Teldix GmbH, Heidelberg	DM		100	19.7	EAV
Telenorma GmbH, Frankfurt am Main[4]	DM		100	507.3	11.4
VB Autobatterie GmbH, Hannover	DM		35	237.4	2.5
Foreign Countries					
EUROPE					
Austria					
Robert Bosch AG, Vienna	ö.S.	14.21	100	650.9	104.1
Belgium					
Robert Bosch Produktie NV, Tienen	B.Fr.	4.87	100	2,864.8	506.9
NV Robert Bosch SA, Anderlecht (Brussels)	B.Fr.	4.87	100	650.5	8.2
Denmark					
Robert Bosch A/S, Ballerup	D.Kr.	25.88	100	183.7	25.1
Finland					
Robert Bosch Oy, Helsinki	Markka	30.88	100	19.4	–11.6
France					
Robert Bosch (France) SA, Saint-Ouen (Paris)[4]	F.Fr.	29.36	100	1,679.3	2.2
Great Britain					
Robert Bosch Ltd, Denham	£	244.10	100	106.6	3.3
Worcester Group plc, Diglis (Worcester)[4]	£	244.10	69	16.1	1.6
Italy					
Robert Bosch SpA, Milan[4]	Lit	0.11	100	113,894.3	10,282.3
Netherlands					
Robert Bosch Verpakkingsmachines BV, Weert	N.FL.	89.05	100	21.7	4.5
Blaupunkt BV, Amsterdam	N.FL.	89.05	100	14.2	–1.9
Norway					
Robert Bosch A/S, Trollaasen (Oslo)	N.Kr.	23.39	100	107.1	0.4
Portugal					
Robert Bosch Lda, Lisbon	P.Esc.	1.11	100	1,862.6	240.7
ARP – Auto-Radio Portuguesa Lda, Braga	P.Esc.	1.11	70	2,287.6	272.3
Blaupunkt Electronica Lda, Braga	P.Esc.	1.11	100	193.9	3.8
Vulcano Termo-Domésticos SA, Aveiro	P.Esc.	1.11	90	2,224.1	717.4

1) Directly and indirectly held shares
2) A subsidiary of Allianz AG Holdings owns an 18% share of ANT
3) EAV = Profit and loss transfer agreement
4) Statement of partial consolidation
5) Refers to shares with voting rights

Shareholdings of Robert Bosch GmbH (as of December 31, 1992)

Name and location of the company	Currency	Exchange rate 100 units of local currency	Owned[1] %	Equity Capital millions in local currency	Profit or Loss millions in local currency
Sweden					
Robert Bosch AB, Kista	S.Kr.	22.94	100	57.3	–4.3
Switzerland					
Robert Bosch Internationale Beteiligungen AG, Zurich	S.Fr.	110.38	90	489.7	26.0
Robert Bosch AG, Zurich	S.Fr.	110.38	100	30.5	0.6
Scintilla AG, Solothurn	S.Fr.	110.38	85	266.1	29.3
Spain					
Robert Bosch SA, Madrid	S.Pts	1.41	100	19,375.1	–1,570.6
Turkey					
Robert Bosch Motorlu Araçlar Yan Sanayi ve Ticaret AS, Bursa	T.L.	0.02	80	158,603.3	59,996.2
AMERICA					
Argentina					
Robert Bosch Argentina SA, Buenos Aires	₳	161.63	100	3.5	1.7
Brazil					
Robert Bosch Ltda, Campinas[2]	Cr.$	0.01	100	2,898,362.0	–149,184.0
WAPSA Auto Peças Ltda, São Paulo	Cr.$	0.01	100	498,413.0	27,632.0
Canada					
Robert Bosch Inc, Mississauga	Can.$	127.20	100	7.0	0.1
Mexico					
Robert Bosch SA de CV, Toluca	Mex.$	0.05	96	255,241.0	8,343.0
USA					
Robert Bosch Corporation, Broadview, IL[2]	US$	161.40	100	577.1	0.4
S-B Power Tool Company, Chicago, IL	US$	161.40	50	–	–[3]
Vermont American Corporation, Louisville, KY[2]	US$	161.40	50	127.2	13.7
ASIA					
India					
Motor Industries Co Ltd (MICO), Bangalore	ind.Rs.	5.22	51	1,415.3	187.0
Japan					
Bosch KK, Tokyo	¥	1.30	100	6,463.2	–275.1
Nippon ABS Ltd, Tokyo	¥	1.30	50	13,890.5	686.7
Malaysia					
Robert Bosch (Malaysia) Sdn Bhd, Penang	M.$.	61.82	100	65.2	8.2
Singapore					
Robert Bosch (South East Asia) Pte Ltd, Singapore	S.$.	98.53	70	24.5	4.9
South Korea					
Doowon Precision Industry Co Ltd, Seoul	Won	0.20	20	13,158.9	1,215.5
KEFICO Corporation, Kunpo-Shi	Won	0.20	26	32,146.0	4,997.0
AFRICA, AUSTRALIA					
South Africa					
Robert Bosch (Pty) Ltd, Johannesburg[2]	S.A.R.	52.88	64	79.8	6.4
Australia					
Robert Bosch (Australia) Pty Ltd, Clayton	A.$.	110.98	100	75.4	–2.5

1) Directly and indirectly held shares
2) Statement of partial consolidation
3) Company started operations on October 1, 1992

In its sessions, the Supervisory Council concerned itself mainly with the progress of business, the financial situation, capital investments, and joint ventures. It also concerned itself with new technical developments in the different business sectors. Outside of these sessions, the Supervisory Council was informed about business trends by written monthly reports from the Board of Management. It was also informed of special matters by circular letters.

Schitag, Schwäbische Treuhand-Aktiengesellschaft, Stuttgart, audited the accounting records, the financial statements, and the situation report of the Robert Bosch GmbH and the Bosch Group. The auditors gave their unqualified opinion in all cases. The Supervisory Council concurs with the findings, and recommends that the shareholders approve the financial statements and follow the application of net income proposed by the Board of Management.

Dr. jur. Karl Gutbrod, Member of the Board of Management, and the General Counsel, Dr. jur. Hans Dieter Mosthaf retired on December 31, 1992. The Supervisory Council wishes to thank both these gentlemen for their long-time and successful activity for the Company.

Effective August 1, 1992, the Supervisory Council elected Mr. Tilman Todenhöfer to become a Full Member of the Board of Management. Dr.-Ing. Heiner Gutberlet, formerly Associate Member of the Board of Management, was elected Full Member of the Board of Management.

Stuttgart, May 1993

For the Supervisory Council
Dr.-Ing. Wolfgang Eychmüller
Chairman

Supervisory Council

- Effective July 1, 1993 -

Dr.phil. Dr.rer.oec.h.c.
Marcus Bierich, Stuttgart
Chairman

Ludwig Vogt, Litzendorf-Pödeldorf
Deputy Chairman
Chairman of the Shop Council
of the Bamberg Plant and
Member of the Joint Shop Council
of Robert Bosch GmbH as well as
of the Combined Shop Council

Dr.jur. Peter Adolff, Stuttgart
Member of the Board of
Management of Allianz
Versicherungs-Aktiengesellschaft

Knut Angstenberger, Stuttgart
Department Manager at the Feuerbach
Plant of Robert Bosch GmbH

Rudolf Baron, Sibbesse
Chairman of the Shop Council
of the Hildesheim Plant and
Member of the Joint Shop Council
of Blaupunkt-Werke GmbH

Walter Bauer, Kohlberg
Chairman of the Shop Council
of the Reutlingen Plant and
Deputy Chairman
of the Joint Shop Council
of Robert Bosch GmbH as well as
of the Combined Shop Council

Dietfried Blanarsch, Stuttgart
Member of the Shop Council
of the Feuerbach Plant
of Robert Bosch GmbH

Rudolf Bley, Immenstadt
Deputy Chairman of the Shop
Council of the Blaichach Plant
and Member of the Joint Shop Council
of Robert Bosch GmbH

Dr.jur. Robert E. Ehret, Frankfurt/Main
Former Member of the Board of
Management of Deutsche Bank AG

Dr.-Ing. Wolfgang Eychmüller,
Ulm/Donau
Chairman of the
Board of Management
of Wieland-Werke AG

Hans-Henning Funk, Hildesheim
Chairman of the Shop Council of the
Hildesheim Plant and Member of
the Joint Shop Council
of Robert Bosch GmbH

Dr.rer.pol. Johan M. Goudswaard,
Wassenaar/Netherlands
Former Deputy Chairman of the
Board of Directors of Unilever NV

Dr.jur. Karl Gutbrod, Stuttgart
Former Member of the Board of
Management of Robert Bosch GmbH

Gudrun Hamacher, Frankfurt/Main
Managing Member of the Board of
Directors of the Trade Unions of the
Metal Industry

Jörg A. Henle, Essen
Chairman of the Board of Trustees of the
Peter-Klöckner-Stiftung, Duisburg

Dr.jur. Robert Holzach,
Zumikon/Switzerland
Honorary President of Union Bank
of Switzerland

Prof. Gero Madelung, Munich
Technical University Munich,
Chair of Aviation Technology

Prof. Dr.rer.nat. Hans-Joachim Queisser,
Stuttgart
Director at the Max-Planck-Institut
für Festkörperforschung

Walter Riester, Stuttgart
District Manager of the Stuttgart
District of the Trade Unions of the
Metal Industry

Joachim Stöber, Frankfurt/Main
Secretary of the Board
of Directors of the Trade
Unions of the Metal Industry

Management

Members of the Board of Management

Hermann Scholl
Chairman

Friedrich Schiefer
Deputy Chairman

Hermann Eisele

Wolfgang Hugo

Hansjörg Manger

Tilman Todenhöfer

Heiner Gutberlet

Associate Members of the Board of Management

Clemens Börsig

Rainer Hahn

Hubert Zimmerer

Supervisory Council

Dr.-Ing. Wolfgang Eychmüller, Ulm/Donau
Chairman
Chairman of the Board of Management of Wieland-Werke AG

Ludwig Vogt, Litzendorf-Pödeldorf
Deputy Chairman
Chairman of the Shop Council of the Bamberg Plant and Member of the Joint Shop Council of Robert Bosch GmbH as well as of the Combined Shop Council

Dr. jur. Peter Adolff, Stuttgart
Member of the Board of Management of Allianz Versicherungs-Aktiengesellschaft

Knut Angstenberger, Stuttgart
Department Manager at the Feuerbach Plant of Robert Bosch GmbH

Rudolf Baron, Sibbesse
Chairman of the Shop Council of the Hildesheim Plant and Member of the Joint Shop Council of Blaupunkt-Werke GmbH

Walter Bauer, Kohlberg
Chairman of the Shop Council of the Reutlingen Plant and Deputy Chairman of the Joint Shop Council of Robert Bosch GmbH as well as of the Combined Shop Council

Hans Beuttler, Ditzingen
Deputy Chairman of the Shop Council of the Feuerbach Plant and Member of the Joint Shop Council of Robert Bosch GmbH

Rudolf Bley, Immenstadt
Deputy Chairman of the Shop Council of the Blaichach Plant and Member of the Joint Shop Council of Robert Bosch GmbH

Dr.-Ing. Konrad Eckert, Stuttgart
Former Member of the Board of Management of Robert Bosch GmbH

Dr. jur. Robert E. Ehret, Frankfurt/Main
Former Member of the Board of Management of Deutsche Bank AG

Hans-Henning Funk, Hildesheim
Chairman of the Shop Council of the Hildesheim Plant and Member of the Joint Shop Council of Robert Bosch GmbH

Dr. rer. pol. Johan M. Goudswaard, Wassenaar/Netherlands
Former Deputy Chairman of the Board of Directors of Unilever NV

Gudrun Hamacher, Frankfurt/Main
Managing Member of the Board of Directors of the Trade Unions of the Metal Industry

Jörg A. Henle, Essen
until Dec. 31, 1992
Chairman of the Board of Management of Klöckner & Co. Aktiengesellschaft
effective Jan. 1, 1993
Chairman of the Board of Trustees of the Peter-Klöckner-Stiftung, Duisburg

Dr. jur. Robert Holzach, Zumikon/Switzerland
Honorary President of Union Bank of Switzerland

Dr. rer. pol. Ralf Krüger, Kronberg
Former Member of the Board of Management of the Bank für Gemeinwirtschaft Aktiengesellschaft
until April 28, 1992

Prof. Gero Madelung, Munich
Technical University Munich, Chair of Aviation Technology

Prof. Dr. rer. nat. Hans-Joachim Queisser, Stuttgart
Director at the Max-Planck-Institut für Festkörperforschung

Walter Riester, Stuttgart
District Manager of the Stuttgart District of the Trade Unions of the Metal Industry

Kurt Schips, Gerlingen
Former Member of the Board of Management of Robert Bosch GmbH

Joachim Stöber, Frankfurt/Main
Secretary of the Board of Directors of the Trade Unions of the Metal Industry
effective April 28, 1992

Management

Members of the Board of Management

Marcus Bierich
Chairman

Günter Bensinger

Hermann Eisele

Karl Gutbrod
until Dec. 31, 1992

Wolfgang Hugo

Joachim Koch
until June 30, 1992

Hansjörg Manger

Friedrich Schiefer

Friedrich Scholl
until June 30, 1992

Hermann Scholl

Herbert Weber

Heiner Gutberlet
effective Jan. 1, 1993

Tilman Todenhöfer
effective Aug. 1, 1992

Associate Members of the Board of Management

Clemens Börsig

Rainer Hahn

Martin Sälzer
effective July 1, 1992

Hubert Zimmerer
effective July 1, 1992

General Counsel

Hans Dieter Mosthaf
until Dec. 31, 1992

Ten Year Statistics

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Mio ECU 1992[1]
Sales											
Worldwide Bosch Group	16,126	18,373	21,223	23,807	25,365	27,675	30,588	31,824	33,600	34,432	17,043
Foreign share as a percentage of sales	50	53	54	50	50	51	52	51	48	47	
Domestic Bosch Group	12,380	14,158	16,121	19,573	20,832	22,491	24,452	25,776	27,467	28,613	14,163
Export share as a percentage of sales	35	39	39	39	39	38	39	38	35	35	
Robert Bosch GmbH	9,042	10,653	12,474	13,265	14,261	15,101	16,623	17,524	18,474	19,375	9,590
Expenditures for research and development											
Worldwide Bosch Group	883	977	1,097	1,262	1,425	1,640	1,803	2,042	2,144	2,302	1,139
as a percentage of sales	5.5	5.3	5.2	5.3	5.6	5.9	5.9	6.4	6.4	6.7	
Domestic Bosch Group	827	906	1,017	1,172	1,321	1,500	1,625	1,879	1,957	2,125	1,052
as a percentage of sales	6.7	6.4	6.3	6.0	6.3	6.7	6.6	7.3	7.1	7.4	
Investments in tangible fixed assets											
Worldwide Bosch Group	895	1,129	1,406	1,813	2,015	1,937	2,064	2,790	2,273	2,038	1,009
including domestic	626	789	1,031	1,407	1,576	1,390	1,259	1,708	1,464	1,347	667
including foreign	269	340	375	406	439	547	805	1082	809	691	342
as a percentage of sales	5.6	6.1	6.6	7.6	7.9	7.0	6.7	8.8	6.8	5.9	
as a percentage of depreciation	117	134	139	145	142	128	128	162	126	103	
Depreciation on tangible fixed assets											
Worldwide Bosch Group	765	844	1,009	1,254	1,416	1,511	1,607	1,725	1,799	1,976	978
Employees – annual average											
Worldwide Bosch Group	127,992	131,882	140,374	158,142	161,343	165,732	174,742	179,636	181,498	177,183	
including domestic	86,574	89,230	94,422	109,604	111,046	113,146	116,644	117,549	116,811	112,942	
including foreign	41,418	42,652	45,952	48,538	50,297	52,586	58,058	62,087	64,687	64,241	
Personnel expenses											
Worldwide Bosch Group	5,877	6,563	6,983	8,139	8,782	9,277	10,202	10,718	11,403	11,838	5,859
Key figures from financial statements											
Total assets	12,609	14,073	15,117	16,770	18,181	20,301	22,205	23,544	24,247	24,452	12,504
Equity capital	3,725	4,377	4,664	5,177	5,623	6,174	6,668	7,050	7,471	7,859	4,019
as a percentage of total assets	30	31	31	31	31	30	30	30	31	32	
Net income for the year	242	446	402	454	825	554	626	560	540	512	262
Unappropriated earnings	37	40	44	40	43	43	43	43	43	60	31

Values in million DM

[1] Conversion of DM to ECU
The 1992 DM values in the Ten Year Statistics have been converted to ECU. Balance-sheet figures and net earnings were converted at DM/ECU exchange rates at year end (DM 0.51135 in 1992). Figures of the Income Statement and addition to fixed assets were valued at annual average exchange rates (DM 0.49497 in 1992).

BOSCH

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Robert-Bosch-Platz 1
Gerlingen-Schillerhöhe

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