

BOSCH

BOSCH

Robert Bosch GmbH
Robert-Bosch-Platz 1
D-70839 Gerlingen-Schillerhöhe

Mailing address:
Postfach 10 60 50
D-70049 Stuttgart

Telephone +49 711 8 11-0
Fax +49 711 8 11-66 30

www.bosch.com

KH/DLD 1 987 782 126



Annual Report 1999

Key Figures

(million DM)

Bosch Group Worldwide	1999	1998
Sales	54,579	50,333
percentage change from prior year	+ 8.4	+ 7.4
Foreign sales		
as a percentage of sales	66	65
Research and development expense	3,757	3,478
as a percentage of sales	6.9	6.9
Investments in tangible fixed assets	3,806	3,773
as a percentage of depreciation	128	148
Number of employees		
average for the year	194,335	188,017
as of January 1, 2000/1999	194,889	189,537
Total assets	40,743	36,343
Equity capital	12,998	11,869
as a percentage of total assets	32	33
Net income for the year	900	850
Unappropriated earnings		
(Dividends of Robert Bosch GmbH)	80	80

Front-page illustration:
In 1999, we introduced a gasoline direct-injection system. It is used on stratified-charge engines. This requires an injector with an extremely accurate spray pattern. The benefits of direct injection, especially substantial savings in fuel consumption, are thus maximized.

Bosch Group Business Sectors and Divisions

Automotive Equipment¹

ABS and braking systems	Engine-management systems – gasoline	Bodywork electrics
Fuel-injection technology – diesel	Body electronics	Mobile communications ²
Semiconductors and control units	Starters and alternators	Aftermarket products, after-sales service, test equipment and technology

Consumer Goods

Power tools	Thermotechnology	Household appliances ³
-------------	------------------	-----------------------------------

Communications Technology⁴

Broadband networks	Aerospace engineering	Security systems
--------------------	-----------------------	------------------

Capital Goods

Automation technology	Packaging machinery
-----------------------	---------------------

¹ Including ZF Lenksysteme GmbH (50% Bosch)

² Blaupunkt-Werke GmbH (100% Bosch)

³ BSH Bosch und Siemens Hausgeräte GmbH (50% Bosch)

⁴ Bosch Telecom GmbH (100% Bosch) and product groups

Table of Contents

	Page
Supervisory Council	4
Board of Management	5
Supervisory Council Report	6
Management Report	8
Automotive Equipment Business Sector	16
Consumer Goods Business Sector	24
Communications Technology Business Sector	30
Capital Goods Business Sector	32
International Business	34
Research and Development	38
Employees of the Bosch Group	40
Financial Statements of the Bosch Group Worldwide	42
Major Companies of the Bosch Group Worldwide	58
Financial Statements of Robert Bosch GmbH	60
Ten Year Statistics Bosch Group Worldwide	62

Supervisory Council

Until April 11, 2000

Dr. phil. Dr. rer. oec. h.c.
 Marcus Bierich, Stuttgart
Chairman
 Former Chairman of the Board of
 Management of Robert Bosch GmbH

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

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

Knut Angstenberger, Stuttgart
 Department Manager in the Diesel
 Fuel-Injection Technology Division, and
 Chairman of the Joint Speaker Group
 of Robert Bosch GmbH and of the
 Group Speaker Committee

Dr. h.c. Bo Erik Berggren, Stockholm,
 former Chairman of the Board of
 Directors and Chief Executive Officer
 of STORA Kopparbergs Bergslags AB

Dr. jur. Ulrich Cartellieri, Frankfurt
 Member of the Supervisory
 Council of Deutsche Bank AG

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

Ruth Fischer-Pusch, Stuttgart
 Trade Unions of the Metal Industry,
 District Management
 Baden-Württemberg

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. jur. Karl Gutbrod, Stuttgart
 Former Member of the Board of
 Management of Robert Bosch GmbH,
 Chairman of the Board of Trustees of
 Robert Bosch Stiftung GmbH

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

Hans-Joachim Jaquet,
 Mörfelden-Walldorf
 Chairman of the Joint Shop Council of
 Bosch Telecom GmbH and Chairman
 of the Shop Council of Bosch Telecom
 GmbH at Frankfurt
 until March 31, 2000

Dieter Klein, Wolfersheim
 Chairman of the Shop Council of the
 Homburg Plant of Robert Bosch GmbH
 and Member of the Joint Shop Council
 of Robert Bosch GmbH
 as of April 1, 1999

Dieter Krause, Hildesheim
 Chairman of the Shop Council
 of Blaupunkt-Werke GmbH, Hildesheim
 as of April 3, 2000

Olaf Kunz, Frankfurt
 Managing Director of the Trade Unions
 of the Metal Industry, Department for
 Union Policy

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

Prof. Dr. rer. nat.
 Hans-Joachim Queisser, Stuttgart
 Formerly Director at the Max-Planck-
 Institute for Solid-State Research

Urs B. Rinderknecht, Ennetbaden
 Chief Executive of UBS AG

Gerhard Sautter, Erdmannhausen
 Chairman of the Shop Council of the
 Feuerbach Plant, and Deputy Chairman
 of the Joint Shop Council of Robert
 Bosch GmbH and the Combined Shop
 Council

Hans Peter Stihl, Remseck
 Chairman of the Board of Management
 of Andreas Stihl AG & Co

Manfred Wenkemann, Homburg
 Chairman of the Shop Council of the
 Homburg Plant of Robert Bosch GmbH
 and Member of the Joint Shop Council
 of Robert Bosch GmbH
 until March 31, 1999

Hans Wolff, Bamberg
 Chairman of the Shop Council
 of the Bamberg Plant and
 Member of the Joint Shop Council
 of Robert Bosch GmbH

Board of Management

Until June 30, 1999

Board of Management

Hermann Scholl
Chairman

Rainer Hahn

Claus Dieter Hoffmann

Robert S. Oswald

Tilman Todenhöfer

Hubert Zimmerer

Associate Members of the Board of Management

Siegfried Dais

Stephan Rojahn

Gotthard Romberg

Effective July 1, 1999

Board of Management

Hermann Scholl
Chairman

Tilman Todenhöfer
Deputy Chairman

Rainer Hahn

Claus Dieter Hoffmann

Robert S. Oswald

Stephan Rojahn

Gotthard Romberg

Deputy Members of the Board of Management

Bernd Bohr

Wolfgang Chur

Siegfried Dais

Franz Fehrenbach

Supervisory Council Report

In its sessions, and using written monthly reports, the Supervisory Council of Robert Bosch GmbH kept itself regularly informed about the progress of business and the company's situation. Business developments, financial situation, investment plans, as well as new technical developments were presented and discussed in detail. Reporting and discussion included all important companies of the Bosch Group. Written monthly reports brought the Supervisory Council up to date on current business developments. Special events were covered in newsletters.

Ernst & Young Deutsche Allgemeine Treuhand AG, Stuttgart, audited the accounting and financial statements of Robert Bosch GmbH and the consolidated financial statements of the Bosch Group. The auditors in all cases gave their unqualified opinion. The Supervisory Council concurs

with the audit findings, and recommends that the shareholders approve the financial statements of Robert Bosch GmbH and follow the proposal of the Board of Management for the disposition of net income.

As of March 31, 1999, Manfred Wenkemann retired and as a result left the Supervisory Council. Dieter Klein was appointed as his successor by the Stuttgart court effective April 1, 1999. The Council expresses its appreciation to Manfred Wenkemann for his constructive teamwork.

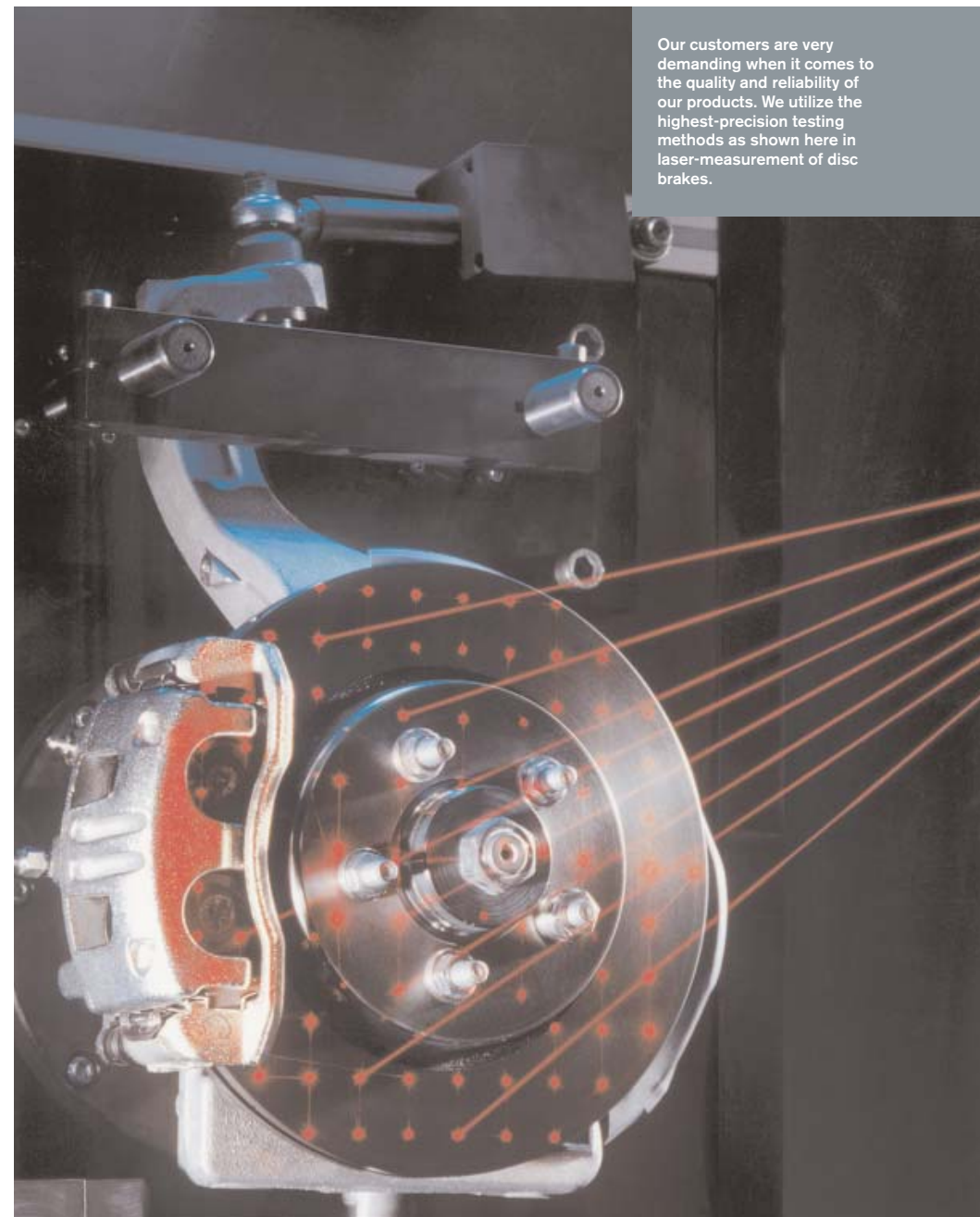
As of June 30, 1999, Hubert Zimmerer, a member of the Board of Management, retired. The Supervisory Council expresses its thanks to him for his many successful years of work in the company.

Tilman Todenhöfer was elected Deputy Chairman of the Board of Management effective July 1, 1999.

At its meeting on April 13, 1999, the Supervisory Council of Robert Bosch GmbH, acting on the recommendation of the shareholders, appointed the former associate members of the

Board of Management Stephan Rojahn and Gotthard Romberg as full members of the Board of Management, and Dr. Siegfried Dais as deputy member, all effective as of July 1, 1999. In addition, the Council, following the recommendation of the shareholders, named Dr. Bernhard Bohr, previously in charge of development at the ABS and braking systems division, Wolfgang Chur, previously speaker for the management of the mobile communications division, and Franz Fehrenbach, previously speaker for the management of the diesel fuel-injection technology division, as deputy members of the Board of Management, all effective as of July 1, 1999.

Stuttgart, April 2000
For the Supervisory Council
Dr. Marcus Bierich
Chairman



Our customers are very demanding when it comes to the quality and reliability of our products. We utilize the highest-precision testing methods as shown here in laser-measurement of disc brakes.

Management Report

The year 1999 was generally positive for the Bosch Group. Growth exceeded our expectations and was particularly influenced by the positive developments in the Automotive Equipment Business Sector. As the year progressed, we initiated significant changes in the organizational structure of the Bosch Group. Some of the most important steps we took were the majority acquisition of the Japanese automotive equipment manufacturer Zexel Corporation, Tokyo, and the sale of our telecommunications product divisions for public networks, private networks, and terminals. This allows us to concentrate our resources on important core activities.

Business upswing during the second half of the year

Consolidated sales of the Bosch Group increased in 1999 by 8.4% to 54.6 billion DM. The consolidated group was primarily affected by the inclusion of our pro rata share of the 50-50 joint venture ZF Lenksysteme GmbH, Schwäbisch Gmünd, and the elimination of the lighting technology division which was contributed to a joint venture with Magneti Marelli SpA, Milan. These changes increased sales by 300 million DM net.

During the first half of 1999, growth, at only 5.9%, was somewhat restrained, primarily because of weak demand in Germany for consumer and capital goods. Influenced by buoyant North American and non-German European economies, growth in the second half of the year increased to 11%.

Foreign sales grew by approximately 11%. Sales in Germany, however, grew a below-average 4.7% to 18.6 billion DM. As a result, foreign sales as a percentage of total sales increased from 65% to 66%.

In our most important foreign markets, Western Europe (without Germany) and North America, sales

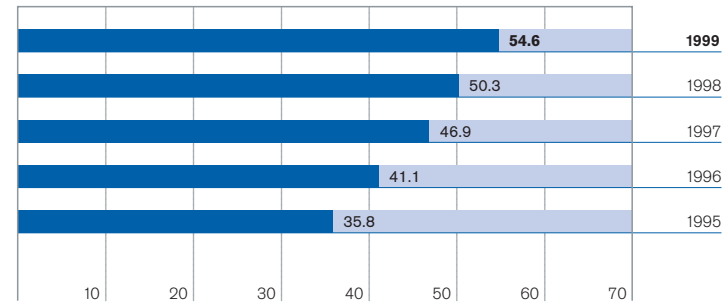
increased 12% and 16% respectively. The higher North American sales in DM were influenced by a much stronger dollar.

We achieved our strongest growth rate in Asia with 23%. However, this did not yet make up for the 1998 decline. In contrast, our sales in South America fell by 30% from the prior year, reflecting the declining economic activity there and the massive devaluation of the Brazilian real.

High capacity utilization in automotive equipment

The growth of the Bosch Group is, as in the year before, primarily the result of the positive development in the Automotive Equipment Business Sector whose worldwide sales increased in 1999 by 12% to 35.5 billion DM. We thus participated in the unexpectedly robust automobile boom, primarily in Western Europe and North America. In addition, we again benefited from the large number of innovations in automobile technology, to which we made important contributions.

Sales
(billion DM) Progress 1995–1999



Nearly all our areas of activity contributed to the growth in automotive equipment. Especially large were the increases we achieved with new products for vehicle navigation and injection technology, and with the electronic stability program (ESP).

Direct injection continues to become more important in injection technology. In 1999 we introduced a gasoline direct-injection system which will be installed in a number of vehicle models. The attractiveness of passenger automobiles with diesel engines is enhanced by the high-pressure diesel injection systems, which we have been producing since 1997 in growing volumes.

Our sales of consumer goods – power tools, thermotechnology and household appliances – increased a modest 3.5% to a total of 11.7 billion DM. As in the year before, this business suffered from the weak consumption climate and declining construction activity, especially in Germany.

The sales to third parties by the Capital Goods Business Sector – automation technology and packaging machinery – fell 3.4% to 2.1 billion DM as a result of the weak investment climate, especially in Germany. If the deliveries of production equipment for our own plants are taken into account, sales increased by 6.1%.

In communications technology, our 1999 sales increased by 4.9% to 5.3 billion DM. This growth was primarily attributable to significant increases in the mobile-telephone business. In contrast, the negative development in the public-networks division continued, as sizable new infrastructure projects are not being carried out.

Number of employees continues to grow

On annual average, the number of employees increased in 1999 by 6,300 to about 194,300, or 3.4% more than in 1998. Employment outside Germany amounted to 97,500 or 3,900 more than the year before. The number of employees in Germany on annual average increased in 1999 by 2,400 to around 96,800. This means that the number of employees in Germany rose by a total of 5,800 in the last three years.

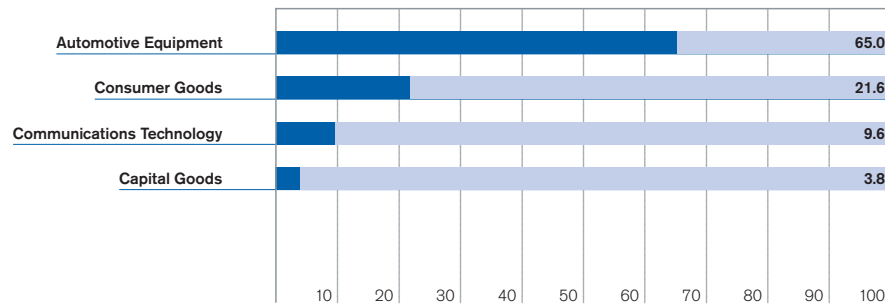
Still unsatisfactory profitability

Although the profits of the Bosch Group in 1999 improved compared to the previous year, they still continued to be unsatisfactory in light of generally positive sales trends. Even though losses in communications technology could be reduced significantly and those at Blaupunkt eliminated, they were offset by continued high expenditures in the start-up of new products and undiminished pricing pressure especially in the core area of automotive-equipment business. New general taxation measures in Germany also dampened profits.

Investments in line with 1998

In order to expand and modernize manufacturing and development facilities we invested – as in 1998 – 3.8 billion DM in tangible fixed assets, of which 54% were invested abroad. The majority of investments were for the expansion of capacity for the new diesel-injection systems. The most important construction project was a plant for electronic control units (ECUs) in Hatvan (Hungary).

Breakdown of sales
(as a percentage) by business sectors 1999



Research and development a high priority

In order to continue to offer our customers innovative products, we increased research and development expenditures in 1999 by 8.0% to 3.8 billion DM. As in 1998, that amounted to nearly 7% of sales. Worldwide, about 16,300 (1998: 15,700) scientists, engineers and technicians work on the development of new products and systems, the improvement of existing products and new production methodology.

More than two-thirds of R&D expenditures were made in the automotive-equipment area. Key efforts were expended in high-pressure injection systems for gasoline and diesel engines, as well as in vehicle navigation systems, and the electronic stability program (ESP).

Global purchasing program started

The worldwide purchasing volume of the Bosch Group, including services, merchandise and capital goods

climbed in 1999 to 28.8 (1998: 26.7) billion DM, corresponding to 53% of our sales. About 57% (1998: 56%) of what we buy comes from outside Germany.

This purchasing volume means that our suppliers have a significant influence on the global competitiveness of the Bosch Group. To strengthen our position, we have started a company-wide program which, in the next two years, will concentrate total purchases in all material areas on the most efficient suppliers. We intend to start cooperation with these suppliers at a much earlier point in the development of new products, giving them the opportunity to participate in the design of our products.

Purchasing and logistics on the internet

We are using the internet increasingly in purchasing and logistics to integrate our suppliers in our processes and to reduce transaction costs. We introduced an E-commerce solution which allows departments to purchase expendable and standard materials directly via the internet. Smaller suppliers will also be able to network directly with our logistics systems.

New electronic marketing systems

The market structure in the after-market is changing because of global trading groups and because of the increased use of new media tools such as the internet. Our sales organization has adapted to these challenges. By process simplification we have shortened order and delivery times. In addition, with our customers we have increased the use of electronic media in sales. We are adjusting the marketing structures for our entire product program to meet the requirements of E-commerce. As the use of electronic media increases, enhancement of our Bosch brands becomes even more important than in the past.

Improved quality together with customers and suppliers

We participated in the harmonization of several national quality standards in the automobile industry, culminating in the international ISO/TS 16949 standard.

We consider the contribution of software in achieving quality in our products to be very important. Our efforts to improve software quality also include projects which we carry out together with our customers. This allows us to achieve teamwork, which also contributes to quality assurance as early as the development phase.

In 1999, we once again honored our best suppliers for good quality of products and services. Of a total of 53 awards, 20 went to foreign companies. As a first, in addition to suppliers for production material, four capital-goods suppliers and two logistics service providers were award recipients.

With BeQIK to greater efficiency

In order to meet the high standards set by our customers, emphasis throughout the company will be on more individual initiative, increased teamwork, and more pronounced customer orientation. These changes are incorporated in our new motto "BeQIK", in which Q stands for quality, I for innovation, and K for the German word for customer orientation.

Under the motto BeQIK we have started two initiatives which fit into our continuous improvement process CIP:

- With the "Time to Market" project, we will improve and speed up the internal processes in the product initiation phase. This will lead to a further shortening of development times, secure control over new start-ups, and generally better and faster fulfillment of customer wishes. This will also contribute to cost reduction.
- The "Customer Focus" initiative is designed to further increase Bosch customer satisfaction. Using close customer relations in all functional areas and at all management levels, we aim to fulfill customer needs and to increase customer benefits still more. The highest principle is reliable fulfillment of all agreed upon work and services. For our customers, working with us should be easy, quick and problem-free: we want to be "easy to work with".

Special events

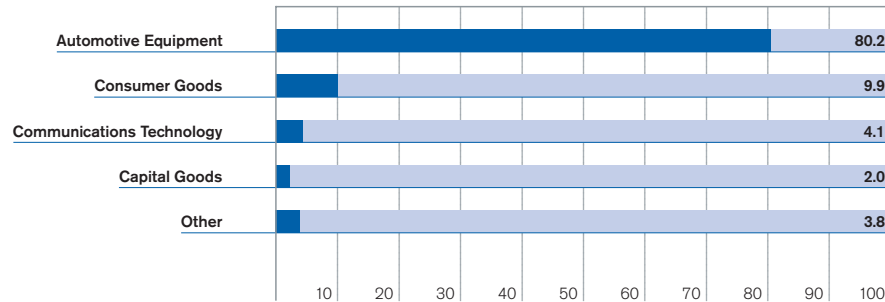
In addition to the regular business activities, far-reaching decisions were made affecting the future structure of the Bosch Group.

Changes in the automotive-equipment areas

As of January 1, 1999, together with ZF Friedrichshafen AG, we established a 50-50 joint venture, ZF Lenksysteme GmbH, Schwäbisch Gmünd. This company supplies steering systems for passenger and commercial vehicles to the worldwide automobile industry, and had 1999 sales of 2.5 billion DM. Of this, 50% is included in the Bosch financial statements.

As of the same date we contributed our headlight activities to Automotive Lighting Holding GmbH, Innsbruck, which is owned equally by Magneti Marelli SpA and ourselves. Total sales of the venture are 1.5 billion DM, a volume which gives it a good chance to be successful in the very competitive automotive lighting market.

Investments in tangible fixed assets
(as a percentage) by business sectors 1999



Strengthening our position in Japan

At the beginning of April 1999 we took over the majority of the automotive supplier, Zexel Corporation, Tokyo, a longtime partner of ours particularly in the diesel area. It was the first time an important Japanese automotive supplier became majority-held by a foreign company. Zexel Group, with about 10,000 employees, had sales of 3.1 billion DM in the business year which ended March 31, 1999.

This transaction is the core of a basic new structuring of our activities in the Japanese automotive-equipment area. The diesel and gasoline injection and transmission technologies are being concentrated at Zexel. Together with Zexel we also want to take increased advantage of the growth potential in automotive air conditioning. To achieve this, a joint venture is planned between Zexel and Valeo SA, Paris.

At the beginning of October 1999, we founded Bosch Braking Systems Co Ltd in Tokyo together with Zexel.

This venture incorporates our braking and ABS activities in Japan, which were previously dispersed among several joint ventures, such as the Zexel company, Jidosha Kiki Co Ltd. The new company has sales of about 1 billion DM.

Disposal of core areas in communications technology

Another important strategic move is the disposal of the divisions responsible for telecommunications products and equipment, which will take effect in the first half of the year 2000. We had suffered considerable losses in this area during the last few years.

The public-networks division was sold to Marconi plc, London, and the private-networks division to Kohlberg Kravis Roberts & Co, New York. We also reached an agreement with Siemens AG on the sale of the mobile-telephone business. These lines have a total sales volume of approximately 4 billion DM. The three other product divisions, that is, broadband networks, aerospace engineering, and security systems will continue to be operated by Bosch.

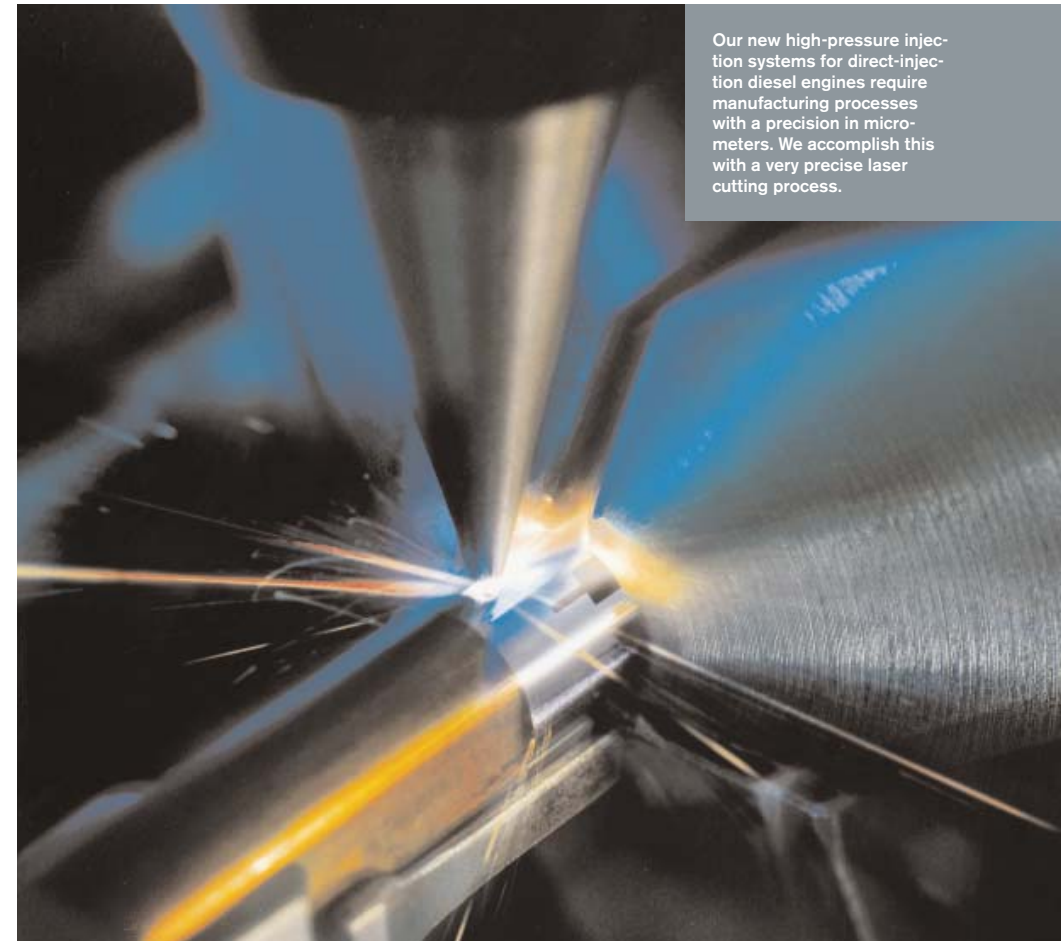
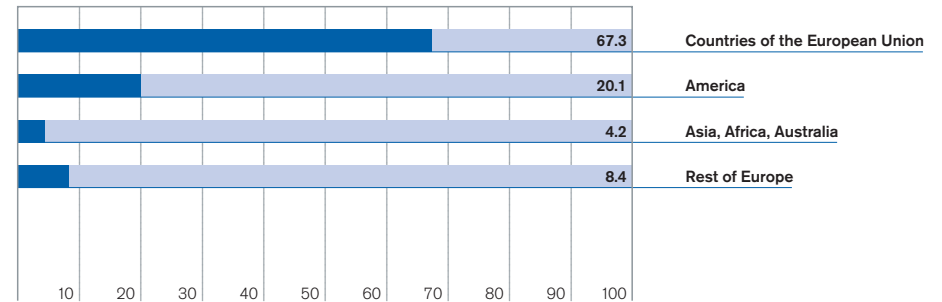
These disposals are the consequence of a radical change in communications technology which is accelerating and requires large commitments,

which can only be made by very large global suppliers. The industry is therefore in the process of global concentration, which also affected Bosch as a medium-sized supplier.

Takeover of Vermont American Corporation

In the other business areas we will continue to expand our position in the most important regions of the world. One step in this process is our complete takeover of Vermont American Corporation, Louisville, Kentucky (USA), effective December 31, 2000. Until now, Bosch and Emerson Electric Co, St. Louis, Missouri (USA), held equal shares in this venture which, with 3,200 employees, produces accessories for power tools. It had 1999 sales of about 750 million DM. Our power tools division, with 1999 sales of 4.5 billion DM, enhances its position in the worldwide accessories market with this acquisition.

Investments in tangible fixed assets
(as a percentage) by regions 1999



Our new high-pressure injection systems for direct-injection diesel engines require manufacturing processes with a precision in micrometers. We accomplish this with a very precise laser cutting process.

Outlook for the current year

The year 2000 started with continued positive business development for the Bosch Group. Sales increased vigorously, compared, however, to a relatively weak sales base at the beginning of the prior year.

The automobile industry, however, has weakened in Western Europe, and particularly in Germany. We therefore expect that our growth in the automotive-equipment business will falter as the year progresses. Our sales will, however, continue to be supported by the introduction and ramp-up to full production of new products.

The other business sectors are profiting from the economic upswing, which we currently expect to continue throughout the year, even if the

economic development in North America should flatten out. Our Consumer Goods and Capital Goods Business Sectors and the remaining product divisions of the Communications Technology Business Sector have introduced a series of new products, which will benefit our growth regardless of the overall economic climate.

Given these market trends, we expect a sales growth for the Bosch Group in 2000 of about 5%. Based on further innovations, the high quality of our products, and good customer relations, our business focus will be on internal growth. That does not preclude acquisitions which complement our core business activities and which allow us to be represented in all geographical areas.

Risks inherent in future development

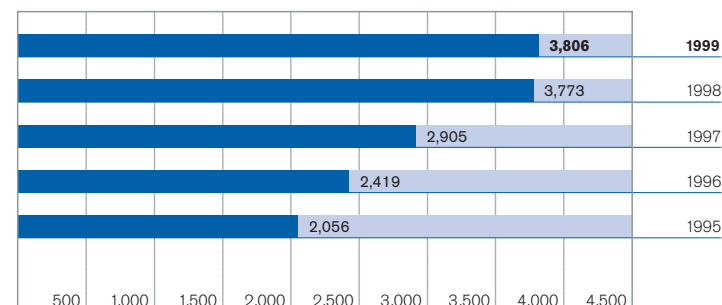
Our group-wide risk-management system is organized to detect threats to assets, profits and liquidity at such an early stage so that appropriate and effective risk-containment measures can be taken at any time.

The core of our risk management constitutes an internal reporting system which enables comprehensive monitoring of all relevant key business data. It is complemented by a constant review of all monetary movements and an independent internal audit department.

The risks which we must deal with lie foremost in the uncertainties of the world economic climate, worldwide tightening of environmental-protection regulations, high demand for reliability and safety in new products, constant price pressure by our customers, and tougher competition from new globally active suppliers in our product areas. These risks are also matched by opportunities which we want to take advantage of by even more intensive efforts.

Investments in tangible fixed assets

(million DM) Progress 1995–1999



In order to limit risks, we will concentrate on the following points in our future strategy and actions:

- We will take into account the uncertainty in the worldwide automobile industry climate by means of cautious investment planning, allowing for capacity expansion especially in areas which by their structure can expect to experience increased demand.
- To protect ourselves from the effects of exchange-rate fluctuations such as those between the euro, US-dollar and yen, we have to a large extent matched sales and production in each of the major regions of the world. In financing, we utilize the available hedge possibilities to cover risks from open positions.

- For more than 25 years now, we have met the technical challenges, especially those posed by environmental laws, with our 3-S program: three German words starting with “S” – safe, clean, economical. Using this motto we are making large investments in further innovations which will contribute to a high degree of acceptance for the automobile, even though it is subject to ever stricter conditions.

- Customer demands on our efficiency continue to increase as a result of transnational cooperations and mergers. We are responding to this trend first and foremost with new technical concepts, permanent improvement of our internal processes, and an uncompromising focus on the customer.

- We are meeting the challenge of E-commerce for our various international distribution channels by activities of our own, which include

our customers, aftermarket partners and suppliers. In order to strengthen our position in the ever more transparent market place, we will implement appropriate measures to further improve the image of our brand names.

All in all, we are confident that we will always be able to cope with the future’s changing challenges.

Key numbers

	1999	1998
Sales	35.5	31.8 billion DM
Investments	3.1	2.9 billion DM
R&D Expense	2.7	2.4 billion DM

Automotive Equipment Business Sector

Motor-vehicle production in 1999 increased by 5.1% to 55.2 million units worldwide. Production in Germany stayed more or less at the extremely high level of the prior year. Western European production of 16.8 million vehicles exceeded that of the year before by 1.5%. US automobile production increased by 8.3% to 13.0 million units, while the Japanese market continued to shrink.

We increased our worldwide sales of automotive equipment by 12% to 35.5 billion DM and further expanded our international presence.

Bosch automotive technology: safe, clean, economical

State-of-the-art motor vehicles are faced with increasingly severe challenges with respect to safety, environmental compatibility, and improved fuel economy. It was more than 25 years ago that Bosch summarized its development and production goals under the motto of its 3-S program: safe, clean, economical. This program is reflected in the majority of our new products, and their market success is confirmed by the high product volumes. The year 1999 was distinguished by important product milestones. We produced:

- The 100 millionth Blaupunkt radio
- the 50 millionth antilock braking system (ABS)
- the 25 millionth Motronic engine-management system
- the 10 millionth ECU for electronic diesel injection (EDC)
- the millionth electronic stability program (ESP)
- the millionth Common Rail high-pressure injection system for diesel engines
- the millionth VP 44 radial-piston distributor pump for diesel engines
- the 500,000th route-finding vehicle navigation system

New development center in the Allgäu

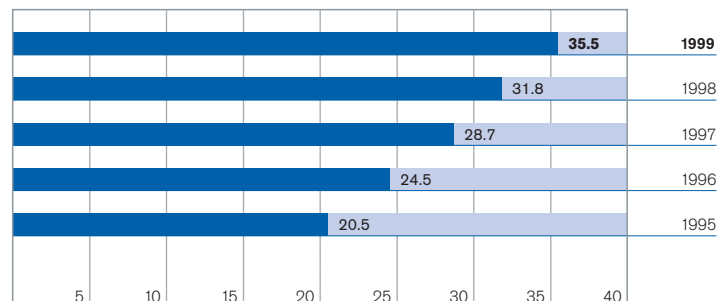
To be able to develop new braking systems to the mass-production stage more quickly, while at the same time maintaining their superior quality and cost-effectiveness, we inaugurated in October 1999 a specialized development center in Immenstadt/Allgäu (Germany). Here, experts from domestic and foreign locations who are employed in the development and production planning for ABS, ESP, and ignition, are brought together to create the conditions for an optimal development process.

Soon as natural as the safety belt: ABS

More than half of all vehicles produced worldwide in 1999 were equipped with an antilock braking system. In that year more than 90% of vehicles produced in Germany, 74% of those manufactured in North America, 67% of those in the remainder of Western Europe and 62% in Japan were equipped with this safety system which we pioneered and brought to market in 1978.

Although initially ABS was found mostly in luxury passenger cars, 86% of compact cars and 30% of small cars in Western Europe are now ABS-equipped. We have made major contributions so that there would be no letup in the further development of the system's technology and

Sales of automotive equipment
(billion DM) Progress 1995-1999



production. ABS, therefore, became continually easier and more economical to integrate in braking equipment. The Bosch know-how in ABS technology is also reflected in several thousand patents.

Every workday 40,000 of these safety systems leave our six ABS production plants in Germany and abroad. That constitutes more than a third of all units produced worldwide. In 1999 we manufactured approximately 10 million ABS units.

ESP in all vehicle classes

Demand for our electronic stability program (ESP) continues to grow. We introduced ESP in 1995 long before the competition. The system is now available in nearly all classes of vehicles.

A prerequisite for the rapid acceptance by car makers was the continuous further development and refinement of the product, making ESP even more efficient, smaller, lighter and more economical, all within a short period of time. As examples, we now use much-simplified hydraulics and we have combined the ECU and the hydraulics into one module.

ESP makes it easier to control the vehicle's handling in critical situations, and is thus an important system for vehicle safety. Accident investigators are emphatic in their recommendation of the system as statistically valid results are now available.

New trigger device for airbags

During 1999 we introduced a new generation of airbag triggers, which feature expanded functionality. The system considerably improves the protection of passengers. It can evaluate more sensors, process more signals and activate up to 20 protection devices, such as seat-belt tighteners and side or frontal airbags. It can also detect incipient vehicle rollover.

High-pressure injection systems for diesel engines

Passenger cars equipped with diesel engines are increasingly in demand. The diesel share of West European passenger-vehicle production grew in 1999 to nearly 29% from 25% the year before. This increased demand resulted primarily from the introduction of new direct-injection engines. Of the new diesel-engine passenger cars sold in 1999, 75% already had direct-injection engines. These consume even less fuel, emit less exhaust gas, and through smoother engine operation and improved acceleration increase driving enjoyment.

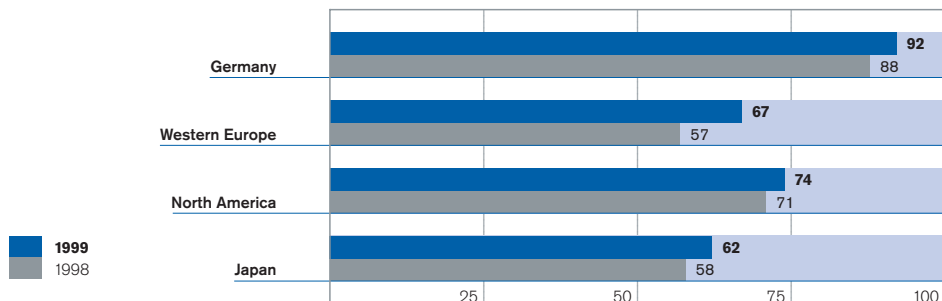
We developed several high-pressure direct-injection systems to the mass-production stage and brought these gradually to the market. Since we can offer the appropriate injection equipment for each engine concept, our systems were very successful on the market in an even broader range of applications.



Working closely with the automobile industry, Bosch develops and produces the right spark plug for practically every engine. The top-of-the-line Platinum+4 is renowned for its low ignition voltage requirement, long life and increased ignition reliability.

Passenger-car market

ABS-equipped vehicles as a percentage of passenger-car production in selected markets 1998/1999



During 1999 the first small car featuring a fuel-economy figure of 3 liters per 100 kilometers went into mass production. It is powered by a direct-injection diesel engine (Unit Injector System). In addition, the first luxury car with an eight-cylinder diesel engine using the Bosch Common Rail System came onto market.

We improved the efficiency of the electronic controls of our diesel injection systems. Since its introduction in 1987, the memory capacity of our electronic control units has been increased by a factor of 15 and the processor performance has increased 40-fold. One of the priorities in our software development is the programming of new, complex control algorithms for still more exact injection. This is necessary to meet the future, tougher emission limits.

During 1999 we prepared for the full production ramp-up of the Common Rail System for heavy commercial vehicles. The first installations were delivered in February, 2000.

Gasoline direct-injection with stratified charge goes into series production

In 1999, as a world premiere, we presented our new gasoline direct-injection system at the International Auto Show in Frankfurt. We have produced an innovative engine control for direct-injection gasoline engines using the stratified-charge principle. This

technology not only results in flexible and highly dynamic gasoline engines but also reduces fuel consumption by up to 15% compared to conventional manifold injection, while at the same time increasing performance by 5%. The system already meets emission limits (Euro IV) which come into effect in 2005.

Components for fuel-cell propulsion

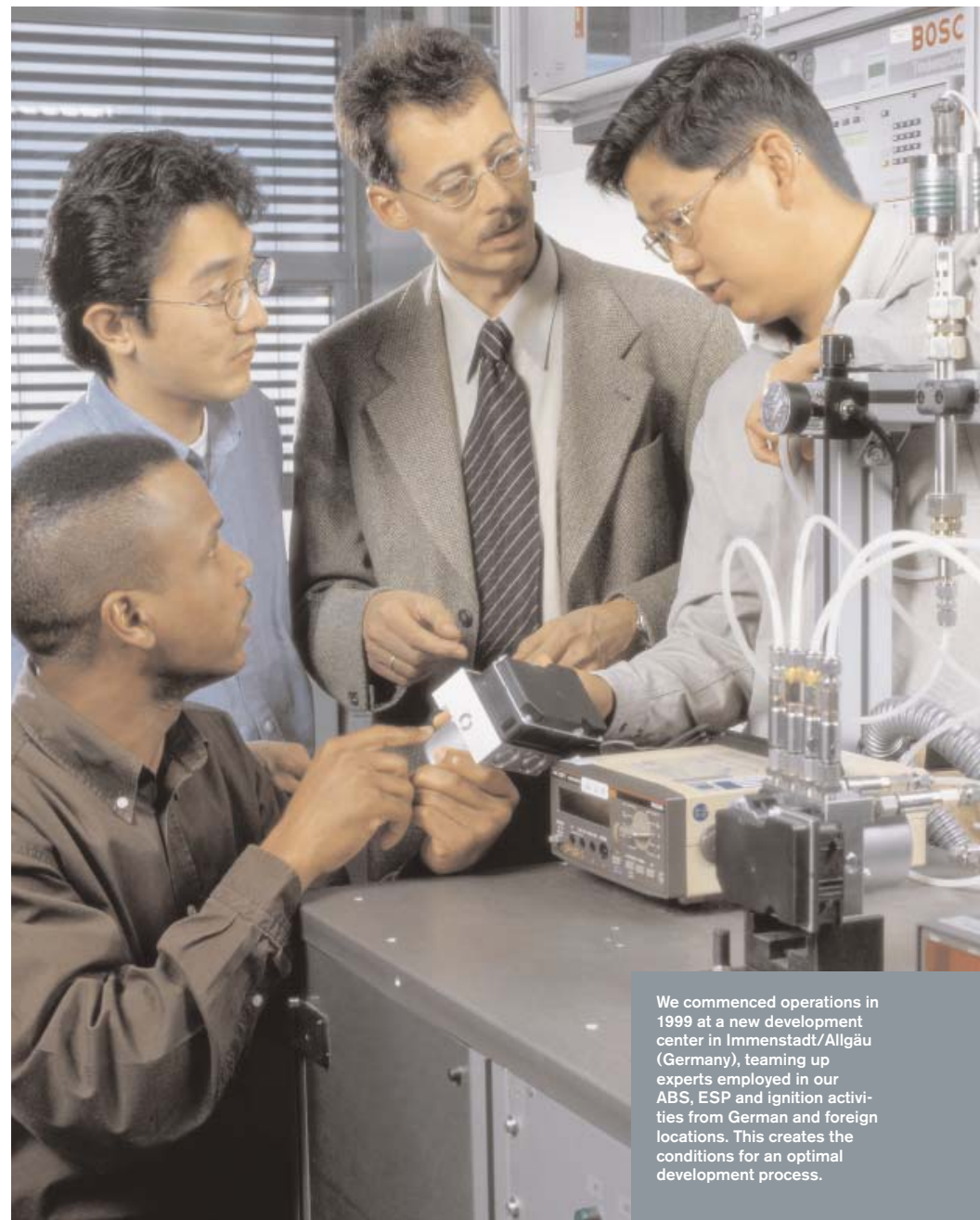
Research, development and divisions are working together on systems which will contribute to traffic solutions which further reduce the load on the environment and on available resources. Automobile manufacturers are placing high hopes on the development of alternative propulsion methods, such as those on the basis of fuel cells. We have started developing the appropriate actuators, sensors, control units and drive mechanisms for these methods.

Pushbelts and modules for automatic transmissions

For several years now we have produced increasing volumes of pushbelts in the Netherlands. This is a key component of CVT (Continuously Variable Transmission) for passenger cars. In the meantime nearly all producers of passenger cars and light commercial vehicles, as well as transmission specialists, are working on a broader-based use of such transmissions in series production, not just for small cars, but also for mid-size vehicles.



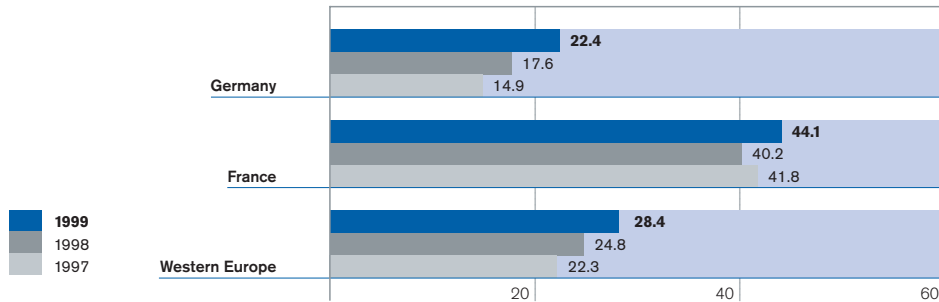
Innovation for the windshield wiper. Our new hingeless wiper blade presses the wiper rubber against the windshield by means of two tension strips. The uniform distribution of pressure improves wiping quality, especially at high driving speeds.



We commenced operations in 1999 at a new development center in Immenstadt/Allgäu (Germany), teaming up experts employed in our ABS, ESP and ignition activities from German and foreign locations. This creates the conditions for an optimal development process.

Automotive market

Diesel-engine passenger cars as a percentage of new-car registrations in selected markets 1997–1999



To this purpose we are working on new versions which can transmit particularly high levels of torque.

For many years now we have been producing electronic control units, magnetic valves and pressure regulators for automatic transmissions. We have now combined the previously separate components into one module, which is integrated into the transmission as a compact assembly. The electronics are constructed in temperature-resistant micro-hybrid technology with oil-proof connections.

New series of alternators

Our new series of compact alternators makes a significant contribution to the reduction in fuel consumption. Although equal in size, these alternators distinguish themselves from their predecessors by an efficiency level raised to 74% and a performance increase of 25%. Depending on the type of alternator and the vehicle, between 0.1 and 0.5 liters of fuel can be saved for every 100 kilometers driven.

The on-board electric network of the future

The growing number of accessories in today's automobile demands constantly more from batteries, alternators and electric networks. So that we can continue to provide a low-cost, lightweight on-board electric system for the energy requirements of tomorrow's vehicles, we are developing a

42 V on-board network, in which powerful high-output alternators directly supply 42 V to those loads with particularly high input needs. These loads include radiator fans, electro-magnetic valve controls, or windshield heaters. A DC converter supplies the still existent 14 V network for ECUs, sensors, and low-load users. We are developing starter-alternators which will make silent starting and automatic start-stop operation possible. An on-board network manager coordinates and controls the smooth interplay of alternators, batteries, converters and loads. Our long-term goal is to convert the entire on-board network and all end-users to 42 V.

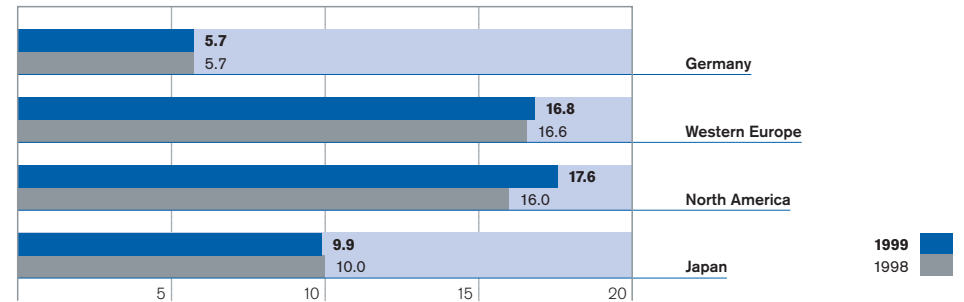
Strong growth at Blaupunkt

Higher demand for car radios and especially for vehicle navigation systems on the part of automobile manufacturers led to robust sales growth at our Blaupunkt subsidiary.

During the summer of 1999, we successfully marketed the new series of Skyline car radios which combines attractive design with state-of-the-art user-friendly technology. These features make a significant contribution to the redesigning of our product line and to the enhancement of our Blaupunkt trade name.

Automotive market

Motor-vehicle production in selected markets 1998/1999 (in million units)



Multimedia equipment is taking on more and more importance in luxury vehicles. We developed a sound system for multimedia installations which has aroused considerable interest on the part of a number of vehicle manufacturers. Because of its unusually good spatial tone quality it is already in use in luxury coaches and large-capacity vehicles.

New equipment for vehicle navigation

Our line of navigation systems was expanded with an innovative after-market device. Since incoming traffic information is processed without driver input and taken into account in determining the recommended route, it is the only system on the market which provides far-sighted, automatic dynamic destination guidance.

With a compact device the size of a car radio, which combines radio, navigation and CD-audio functions in one, we have also contributed to the development of a new market. Both these innovative accessories have given strong impetus to the after-market business as they are being offered at attractive prices and are easy to mount.

Computer platform for display instruments

The display instrument is developing more and more into an information center which must deal with a large number of data from various vehicle systems. To meet this requirement we have developed a new electronic platform based on a 32-bit microcontroller. New display systems with additional information functions can thus be designed and implemented faster than before.

New developments for wiper systems and seat adjustment

During 1999 we were the first manufacturer to introduce a new hingeless wiper blade to the market. It presses the wiper rubber to the windshield using only a pre-tensioned strip instead of the usual system which employs several hinges. The new wiper blade cleans better and provides a clear view even at high speeds. Its flat structure also reduces airflow noise considerably, and in winter this blade stands out due to its lack of joints where snow and ice can accumulate.

We also developed a new wiper system in which each wiper arm has its own electric drive. Using electronic synchronization of both electric motors, the conventional connecting rods are eliminated. This makes the equipment lighter and more compact, and the driver has a maximum field of vision.



In 1999 we produced the 50 millionth antilock braking system. We started its development in 1967 and production began in 1978. Every third ABS produced worldwide today comes from Bosch.



The Unit Injector System (UIS) from Bosch – a high-pressure system for direct-injection diesel engines – considerably reduces fuel consumption and pollutant emissions. In 1999, it was installed in the first mass-produced passenger car to use less than three liters of fuel per 100 kilometers.



The subsequent installation of a navigation system is considerably simplified with our compact Travelpilot. It combines radio, navigation and CD-player and fits in the normal car-radio installation bay.

In 1999, we introduced a compact, lightweight spindle drive for seat-adjustment use. This assembly enables linear adjustments without additional gears. Accident-caused forces are absorbed by the gear housing via the spindle.

Increased use of brushless electric motors

We are constantly using more and more brushless, electronically commutated electric motors. We developed a new auxiliary water pump on this basis. Without involving higher production costs, the motor's electronic commutation reduces the pump's weight and the space it needs, as well as increasing its useful life. We are also working on an electrically powered main water pump which will lead to fuel savings.

Increased sales of closing systems

The positive business trend in closing systems continued in 1999 with a further strong jump in sales. New developments have considerably improved our standing in the market. Our NAFTA-area activities were expanded by commencing operations at another production line for vehicle locks at the San Luis Potosí, Mexico, plant.

Efficient transistors for interior heating

As modern internal-combustion engines optimize fuel consumption, the residual heat available for heating the car interior goes down.

To counter this, we employ electronically controlled booster heaters. For this purpose we developed a power transistor, which is protected against thermal overload.

Aftermarket business expands further

We were able to increase aftermarket sales further. Especially our business in the Asian and Latin American regions, which are recovering from economical and financial crises, improved again. We continued the expansion of our distribution organization in Europe.

We introduced a new generation of sheathed-element glow plugs with double the useful life of their predecessors. The product range was expanded with a universal adapter for easy and fast installation of wiper blades.

Our worldwide service organization consists of about 9,100 service centers with more than 90,000 employees in 132 countries. In 1999 we started redesigning the outward appearance of the Bosch service centers.



New external design for Bosch service centers. It emphasizes the change from the vehicle electric specialist to the customer-oriented auto workshop.

Key numbers

	1999	1998
Sales	11.7	11.3 billion DM
Investments	378	385 million DM
R&D Expense	314	294 million DM

After a temporary weakening during the first half of 1999, the economic development in the European Union again picked up speed, supported substantially by robust domestic demand. Even so, there were considerable differences among various countries in their rates of growth, with consumer demand in Germany remaining weak for example. North American private consumption on the other hand increased, and the economies of Latin America and Southeast Asia recovered during the course of the year.

Our sales of consumer goods increased by 3.5% to 11.7 billion DM. This includes 50% of sales by BSH Bosch und Siemens Hausgeräte GmbH.

Consumer Goods Business Sector

Strong position in power tools

We develop, produce and sell power tools, accessories and gardening equipment. Each of these three business areas had a 1999 world market of approximately 13 billion DM.

In the core business of power tools we are one of the three largest suppliers, who together share about 60% of the market. The remainder is covered by smaller producers ranging from specialists for professional power tools of high quality to Asian manufacturers of unbranded products.

Fragmented markets for accessories and gardening equipment

The accessories market is severely fragmented. In many countries we compete with our brands against suppliers of strong regional importance. In 1999, to strengthen our position as a universal supplier, we purchased 60% of Aresi SpA, Brembate/Bergamo (Italy), a producer of chisels, hammer drills, and drill bits. As of the end of 2000 we will complete the takeover of our current joint-venture

Vermont American Corporation, Louisville, Kentucky (USA). Previously, Emerson Electric Co, St. Louis, Missouri (USA), and Bosch each held a 50% interest in this company.

The market for gardening equipment, too, is covered by a large number of generally national suppliers. More than half the market volume is made up by lawn mowers.

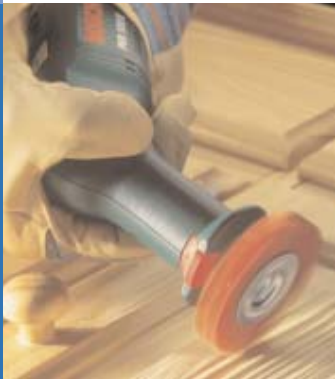
Our subsidiary Atco-Qualcast Ltd, Stowmarket (UK), concentrates its marketing in Europe; Vermont American Corporation is active in the US market with watering systems.

The worldwide market for power tools grows again

After the decline in the prior year, the 1999 worldwide market for power tools increased by 3% to 95 million units. We continued to increase our sales and were able to strengthen our position in important markets, especially in North America and the Far East.



Production line for compass saws. We are one of the three largest manufacturers of high-quality branded products.



Highly practical innovations for both professionals and do-it-yourselfers: our new electric grinding brushes with extensive systems accessories.

Demand in Europe remained at prior year levels. Although most non-German Western European markets showed some growth in 1999, the German market declined for the third year in a row. This was the result of the continuing recession in the construction industry and the once again increasing competition from unbranded products in the lower price ranges in home-improvement and discount-store chains. In our most important market, Western Europe, we traditionally maintain a strong market position in most countries. Eastern European market volume declined because of the economic crisis in Russia. Our brands are well-known there and our quality is appreciated.

Brisk demand in North America, recovery in Asia

The North American market grew by a real 6% in 1999. A construction boom and the growing concentration into large home-improvement chains, coupled with the opening of many new branches, are key causes behind this growth. The distribution channel provided by the large home-improvement markets offers considerable growth potential for our Bosch, Skil and Dremel brands.

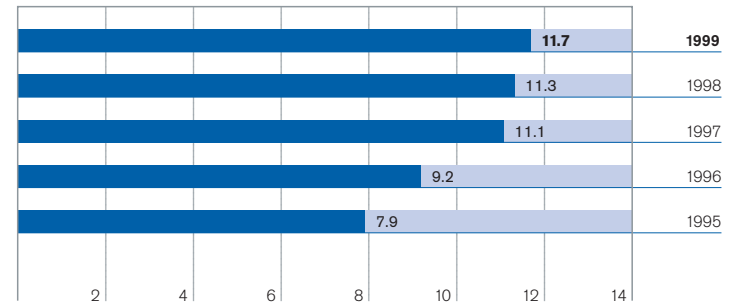
The power-tool market in Asia also grew by a real 6%. Demand in 1999 recovered primarily in Korea and

Southeast Asia. The Chinese market, however, showed but little growth and the largest single market in the region, Japan, shrank considerably. We manufacture power tools on the Asian continent in Malaysia, India and in our joint venture in China, making us one of the most important non-Asian producers in this region.

Good brand image and a high degree of innovativeness

Besides our internationalization, it is the good image of our Bosch, Skil, Dremel, Atco, Qualcast and Hawera brands which constitutes the essential strength of our business. This image owes its good reputation to the pronounced customer orientation and high degree of innovativeness of this business sector. As in prior years, in 1999 we again introduced a totally new product: the electric grinding brush which is offered both to commercial users and the do-it-yourself market. At the September 1999 Cologne Garden Show, we presented 22 new gardening tools, making us the exhibitor with the largest number of innovations.

Sales of consumer goods
(billion DM) Progress 1995–1999



Extranet offerings expanded

New media, such as the extranet, an area of the internet with access limited to a certain group of subscribers only, allow for more efficient teamwork in the aftermarket. We expanded the successful extranet offerings in Germany to Belgium, the Netherlands, Luxemburg, France, and Portugal. Other countries will follow.

Our extranet is completely customized for the aftermarket. It is here that our trade partners can obtain information about products, prices, delivery capabilities, promotions and special offers, and persons to contact. It also lists our customer services and our complete training program for the aftermarket. In Germany, more than 700 dealers already use this service.

Position in thermotechnology maintained

We were able to raise the sales in the thermotechnology area in 1999. By uncompromising further development and renewal of our product range we secured our position as an important supplier to the European heating-equipment market.

Growth in the Central and East European markets continued, while competitive conditions in West European

markets which suffered from overcapacity, became increasingly difficult. In 1999, the continued weakness in the construction industry again impeded business development in Germany.

We expanded our good market position for wall-mounted gas heaters in the European market. We invested in the development of modular gas-heating units in order to shorten the product creation process and to be able to react more quickly to customer wishes.

In the still rapidly growing market segment of energy-saving equipment maximizing useful heat, we supplemented our broad product range with additional models, thereby improving our market position in Germany. We were able to strengthen our position in the shrinking European market for gas-fired boilers by the introduction of innovative products.



Production of sawblades. Bosch maintains a wide range of accessories for power tools. This business continues to expand.

Our development activities center on the enhancement of customer utility. With this in mind, we developed a special device for use in a standard chimney, and a new gas-fired boiler which is not dependent on an electric network or battery. Both new products will be marketed in the year 2000.

The complete takeover of our former joint venture Shenzhou Gas Appliances Co Ltd in Shunde (China) simplified incorporation of the plant into our international production network. We supply the European market from our plants in Germany, U.K., France, Portugal, and Turkey.

Foreign sales of household appliances increase

After robust expansion of its international presence in the past few years, BSH Bosch und Siemens Hausgeräte GmbH, Munich – a 50-50 Bosch and Siemens joint venture – entered a consolidation phase in 1999. In North America and in Spain business activities were combined. In Austria a company was established in which all sales activities in the country were united.

BSH increased its sales in 1999 by 4.3% to 10.7 billion DM. This development was supported by an increase in foreign sales of 11%. The share of sales abroad rose from 64% to 68%. Double-digit growth rates marked the expansion in European markets, especially in the U.K., France, Italy, and Scandinavia. But above-average increases were also noted in the US and China. The good sales development abroad was negatively influenced by the continued difficult situation in Latin America and Russia.

In the largest single European market, Germany, BSH sales declined. The decisive factors here were the negative trend in the household-appliance market and the start-up difficulties in the conversion to a new distribution system.



Production of gas-fired boilers in China. We further expanded our position in the largest Asian growth market.

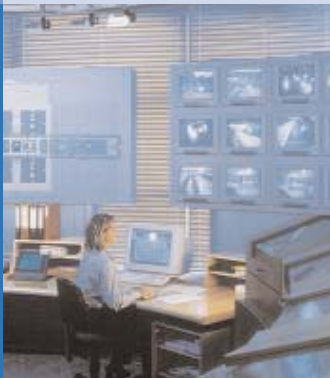
Key numbers

	1999	1998
Sales	5.3	5.0 billion DM
Investments	154	220 million DM
R & D Expense	591	600 million DM

Communications Technology Business Sector

The world market for equipment in the communications-technology area grew more strongly in 1999 than in the prior year, especially in private communications technology and mobile and data communication. Regional growth was again focused on the non-German European and overseas markets.

Our sales in communications technology in 1999 increased by 4.9% to 5.3 billion DM.



Security management from Bosch: All data converge at the security-management centers of large building complexes and compounds such as airports and fairgrounds. This means that security measures can be taken in good time.

Disposal of activities in telecommunications

The strategically most important step is the disposal of activities in telecommunications equipment and installations, which will become effective during the first half of 2000. The product groups for public networks and for private networks were sold. We reached an agreement with Siemens AG, Munich, on the sale of the mobile-telephone business. These areas have a total sales volume of about 4 billion DM.

We continue to operate the three other product groups for broadband networks, aerospace engineering, and security systems.

Product range in security systems expanded

The European market for electronic security systems recovered in 1999 with growth of approximately 4%. The market is increasingly characterized by competitive concentration and globalization of the industry. We were able to further strengthen our already strong position in this changing environment with above-average growth in Germany and by the introduction of innovative products.

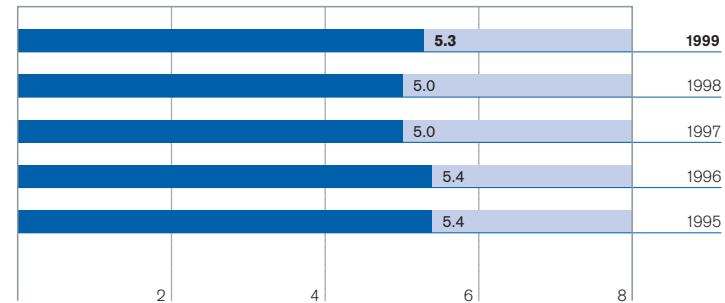
Video-monitoring technology grew disproportionately more, primarily as a result of the increased use of digital image processing. We introduced a new digital imaging system. It func-

tions with a special compression process and records images only when movements take place in the camera monitoring field. As a result, it only needs 40% of the memory capacity of current solutions. This system has given us an even greater technical lead in complex video-monitoring systems.

For the digital bus technology LSN (Local Security Network) we developed a chip which allows sensors and actuators to be integrated into security networks quickly and economically. Apart from an interface with the field bus, the chip contains the electronics for the complete communications management, and the necessary overload protection. It can even be integrated into the smallest detector such as the magnetic contacts for window monitoring. We have gained additional customers and licensees for this solution.

With regard to detection speed and freedom from false alarms, the new generation of fire alarms which we introduced a year earlier has set new standards in the market. This is the first detector of this type in the market which detects not only smoke and heat, but also fire-gases. Detection is therefore much faster and more reliable than with conventional detectors.

Sales of communications technology products (billion DM) Progress 1995–1999



Services in the security systems area expanded

We have further expanded the range of services of our Magdeburg call center. Here, more than 100 employees take up to 15,000 calls daily, process them, supply the callers with information or enter data directly online into the client's computer system. During 1999 we received orders for services in the traffic information, route-planning, and emergency-alarm areas from two large suppliers of traffic telematics.

Decreasing market development in satellite technology

The continuing investment restraints in satellite-supported communications systems in Asia and South America and the unsolved financing problems of global systems led to declining market trends. Despite this, we were able to expand our strong position in traveling-wave tube amplifiers for all frequencies. We obtained orders from well-known European satellite manufacturers and were able to gain new customers in Asia.

For the ISS (International Space Station) which is to succeed the Mir space station, we received an order for the delivery of high-reliability components. We expect further growth opportunities from our significant participation in the international Comed (Constellation and Media Development and Demonstration

Program) project. The project is centered on basic development efforts for future satellite communications systems for multimedia uses.

New perspectives for state-of-the-art broadband networks

As the third-largest operator of broadband networks in Germany, by far the most important European market, we supply more than a million households with cable television and radio reception. Working closely with apartment building management companies and by the installation and purchase of additional networks, we were able to expand our market position in 1999 as in the years before, and to secure it by long-term contracts with our customers.

Deregulation, new competitors and technical developments are causing considerable market changes which create growth. As a result, additional business opportunities are opening up for private cable-network operators.

Aside from being able to offer a considerably wider choice of television programs as a result of future digital transmission, the use of broadband networks makes interactive communications services a distinct possibility. Because of their wide bandwidth, they are especially suitable for fast transmission of internet signals to private end-users. We are preparing ourselves thoroughly, for example by modernization of our networks, to take advantage of this new business.



Bosch is a highly reliable supplier of aerospace engineering components. Photo: Multiplexer for communication satellite equipment.

Key numbers

	1999	1998
Sales	2.1	2.2 billion DM
Investments	74	65 million DM
R&D Expense	158	143 million DM

Capital Goods Business Sector

The economic upswing in Western Europe during the second half of 1999 led to a slight rise in capital investments. Demand for capital goods in Germany also recovered. Large declines in German mechanical engineering exports caused production in this industry to fall.

Our sales of capital goods in 1999 declined 3.4% to 2.1 billion DM.

Weakness in automation technology

We experienced a decline in automation-technology sales, primarily as a result of weak domestic business. In contrast, sales abroad increased. Including company-internal deliveries of manufacturing equipment, our sales of automation technology increased. After weathering the economic crisis, orders from Asia increased in the second half of the year.

In a difficult economic environment, our mobile-hydraulics product line was able to maintain its position in agricultural and materials-handling technology. We introduced an innovative extra-quiet gear pump to the market. We were able to gain important new customers for our electro-hydraulic directional-control valves with CAN bus interface for data communication. The product range of our DC hydro-assemblies was expanded with a new series which permits very sensitive lifting by forklift trucks.

Increased use of electronics in hydraulic components

The part played by electronics in our industrial-hydraulics products continues to grow. We met the demands of our mechanical-engineering customers by expanding our product range with digital-control hydraulics components. As an example, we

equipped the medium-pressure low-noise vane pump with electrohydraulic controls.

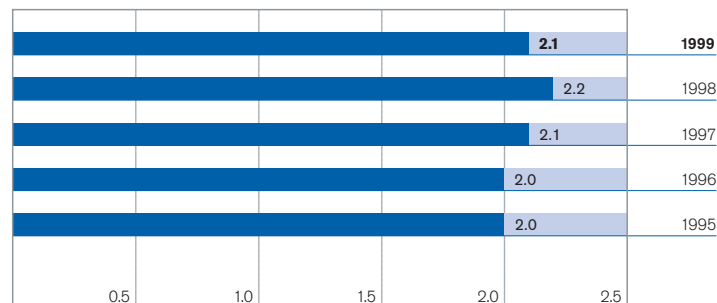
Our pneumatic compact cylinder and valve mount were well accepted by the market. Additions to the product range contributed considerably to this success. We introduced two new pneumatic valve series, including box valves which have a markedly higher flow-rate capacity.

New double-belt conveyor systems introduced

Our accessories program of mechanical base elements for assembly technologies was expanded further in 1999. On the basis of our modular profile system, we developed a low-cost system for manually connecting workstations. We introduced a double-belt conveyor system which offers our customers clear cost benefits. Compared to single-belt systems, it also allows for the movement of heavier workpieces.

Our swivel-arm robots with PC-based controls, which we first marketed the year before, were favorably accepted by our customers. We opened up new applications by introducing further variants for use in dirty environments. Remote diagnostics and programming increase the flexibility of our customer service.

Sales of capital goods (billion DM) Progress 1995–1999



In the area of drive and control technology we developed a monitoring system which, as an innovation, is integrated in the electric drive. It makes for safe machine set-ups although mechanical protection devices are open. We expanded our memory-programmable controls with a low-cost minicontrol for the lower power range.

New seminars and learning tools were developed for the schooling and training of dealers and customers. We expanded the successful series of technical manuals in fluid technology and mechatronics and translated them into several languages. The interactive training programs in fluid technology were well received and now constitute benchmarks for such instruction tools.

Worldwide production of packaging machinery

Our packaging-machinery sales in 1999 exceeded those of the prior year and grew faster than the overall world market. The export share of 86% mirrors the global focus of our activities.

One of our strengths is our foreign presence. By offering local application engineering, we adapt our products to the country-specific requirements of our customers. In addition, we offer service close to the customer's location. Besides at three German plants, we develop and produce packaging

machinery in Brazil, India, Japan, the Netherlands, the Czech Republic, and the United States. Customer service branches exist also in China, Russia, Singapore, and Mexico.

Complete packaging solutions supplied

Increasingly, our customers in the food, confectionery and pharmaceutical industries expect complete packaging solutions. We meet these requirements with the appropriate product innovations and program complements.

As part of a large project, we delivered 56 pouch-filling machines to a United States customer for the packaging of potato products in new reclosable upright bags.

We expanded our market position with new equipment for filling and closing ampules, injection vials and preproduced one-way syringes, in which the product handling element is designed as an encapsulated sterile chamber (insulator technology).

Our product range of blister-packaging machines for tablets and capsules was enlarged with a high-performance line. It consists of a deep-drawing and cartoning machine with highly dynamic servo drives and industrial-PC controls. The equipment offers a high degree of flexibility and availability. Our range of production and packaging machines for the confectionery industry was increased by high-performance boiling, cutting and folding

equipment for hard and soft caramel candy mixtures. We also introduced machines for producing chewing gum and spherical confectionery products.



Highly demanding insulator technology for the pharmaceutical industry from Bosch: equipment for cleaning, sterilizing, filling and closing of ampules.



Bosch pneumatics for plastics processing: units consisting of pneumatic cylinder, solenoid valve and cylinder mount guarantee fully automatic material flow.

Key numbers

	1999	1998
Sales	36.0	32.5 billion DM
Investments	2,060	1,843 million DM
R&D Expense	1,085	946 million DM

International Business

During 1999 we strengthened our international presence further and in particular expanded our activities in Asia. This is above all the case for our automotive-equipment business. We continue to see good growth potential in the Asian market, since the economic recession of 1997/98 has meanwhile been overcome in most of the countries in this region. We also see stronger growth primarily in the NAFTA area.

In total, the Bosch Group has subsidiaries and associated companies in 48 countries. More than 190 manufacturing sites, of which 145 are outside Germany, testify to the international commitment of the company. Worldwide, Bosch participates in 32 joint ventures.

More openness on the part of Far Eastern vehicle producers

The manufacturers in this region are working vigorously on the improvement of their competitiveness. The focus is on organizational restructuring and the development of innovative vehicles which can compete worldwide. The manufacturers are increasingly open to cooperation with efficient and technologically leading foreign suppliers who have a high degree of systems competence. Existing traditional relations between producers and national suppliers are increasingly losing their importance.

For many years now, we have been active in Japan and Korea where we acquired the reputation of a competent, innovative and efficient supplier with local manufacturing and application-engineering capacities. This trust is an essential prerequisite for the further expansion of our business in these countries.

Reorganization in Japan

After acquiring the majority interest in Zexel Corporation, Tokyo, we are concentrating our activities there in the fields of gasoline and diesel injection and transmission technology. We also combined our passenger-car braking-systems business in Bosch Braking Systems, a new company jointly held by Bosch and Zexel. This makes us the first supplier in the

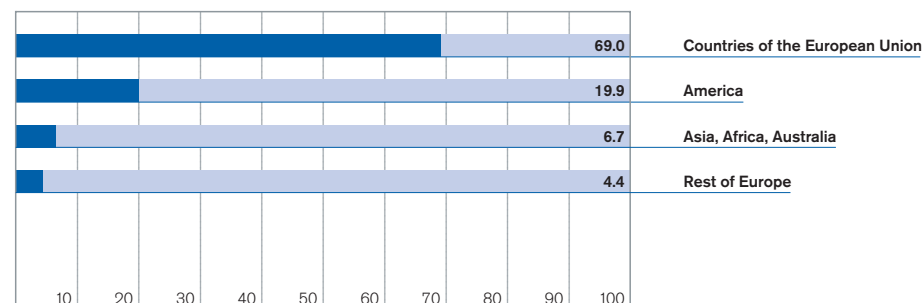
Japanese market able to offer a complete program of braking components and braking systems. Our customers were highly positive in their reactions to the new organization. Important Asian automobile producers have engaged us more strongly in their projects.

Bosch is represented in Japan with a total of five companies, and in addition has three minority interests. Our sales in Japan, which previously were only partially consolidated, reached about 4.5 billion DM in 1999.

Restructuring of our Korean activities

We also restructured our activities in Korea. In agreement with our partners, we took over complete ownership of four of our former six joint ventures. We combined our OEM automotive equipment business under one roof, the Bosch Korea Mechanics and Electronics Ltd, so that integration with our international production organization became possible. A further company conducts the after-market business. As a result, Bosch is now active with only two companies and two minority holdings. The pro rata, previously only partially consolidated, sales in Korea reached 800 million DM in 1999.

Breakdown of sales
(as a percentage) by regions 1999



Strong growth in China

In China we are preparing ourselves for China's membership in the World Trade Organization. We have expanded our marketing activities and increased the range of our production, especially in the area of engine controls. For application engineering, production and sales of diesel injection systems, we established a new company jointly held by Bosch and Zexel. It started production of injection pumps for the Chinese market in March, 2000. We also established Bosch (China) Investment Ltd, Beijing, as a holding company, which, as a wholly-owned subsidiary, will hold the shares in our Chinese companies.

Our volume of business in China grew again in 1999. The introduction of stricter emission regulations and the increased use of diesel engines in light and heavy commercial vehicles led to higher sales in gasoline and diesel-injection technology.

Aside from the holding company and two aftermarket companies, we also produce automotive equipment in five ventures with Chinese partners, and gas-fired boilers and power tools in two other companies. In two joint ventures, BSH Bosch und Siemens Hausgeräte GmbH produces refrigerators, freezers and washing machines.

Our pro rata, until now only partially consolidated, sales in China increased in 1999 to 275 million DM.

Further expansion in North America

In 1999, in the United States, Canada and Mexico, we combined important activities in automotive equipment under one roof, i.e. our U.S. subsidiary Robert Bosch Corporation, Broadview (Chicago), Illinois. This enables us to better meet the requirements of our North American automobile industry customers. In total, at 18 locations within NAFTA, we produce electronic control units, components for braking equipment, diesel and gasoline-injection equipment as well as starters, alternators and electric motors for seat adjustment, fans and wipers.

North America, with a sales volume of 9.4 billion DM, is our largest foreign market. We participated in 1999 in the strong U.S. economy and the full order books of the automobile industry, and expanded our production program further. We commenced production of a new Lambda sensor and of the electronic stability program (ESP), and prepared for the production start-up of injectors for diesel and gasoline direct injection. We are gearing up for further strong growth in North America, as we see great potential for our efficient and high-quality components, systems and modules.

The most important 1999 markets outside Germany

Sales (billion DM)

USA	8.3
France	5.2
U.K.	3.2
Italy	3.0
Spain	2.6
Brazil	1.2
Austria	1.2
Japan	1.0
Netherlands	0.9
Sweden	0.9

In order to be able to meet future requirements still better, we have considerably expanded our technical center at Farmington Hills near Detroit, Michigan. The plan is to concentrate application engineering and sales of automotive equipment there.

In order to gain direct access to research and development in the United States, we established the Bosch Research and Technology Center North America. Located in Palo Alto, California, it deals with sensor systems which exchange information in a wire-less mode and which can combine into networks. At its Pittsburgh, Pennsylvania location, work progresses on development methods for systems and software.

Stagnation in Brazil

The economic development in South America is influenced especially by Brazil. Following the economic stagnation of 1999, we expect this country to again show growth in the future. In the automotive-equipment area we intend to participate in the expected increase in Brazilian automobile output. Our total sales in South America amount to 1.5 billion DM. Approximately 1.2 billion thereof pertains to our most important market, Brazil.

Strong growth in France and the U.K.

France is our largest European market outside Germany with a sales volume of about 5.2 billion DM. In France, we manufacture products for automotive equipment, thermotechnology and automation technology.

During 1999 we were able to increase our sales in the French market by 21%. Business with the country's automobile producers grew at an above-average pace, major contributors being the increased use of ABS in vehicles as standard equipment and the steep increase in production of diesel-powered vehicles.

Because of the strong demand for diesel-injection equipment components, our plants at Rodez and Vénissieux were working at full capacity. We are expanding diesel production at Rodez, where we will invest about 175 million DM by the end of the year 2000 for the production of a new high-pressure injection system, the Unit Injector System (UIS).

In the U.K., the second most important non-German European market after France, with sales of 3.2 billion DM, we produce automotive equipment, power tools and products in the thermotechnology area. The unexpectedly strong growth in British automobile production had a significant impact on the development of our business. Our sales in the U.K. increased by 14%.

Weakness in Central and Eastern Europe

During the past eight years we established 12 sales companies in the countries of Central and Eastern Europe. In addition, we built plants in Poland, Russia, the Czech Republic, and Hungary for the production of automotive equipment.

Our business in Central and Eastern Europe was marked by a pronounced downward trend in 1999. While we were able to achieve generally double-digit aftermarket-business growth during the past seven years, aftermarket-sales growth slowed in 1999 and in some markets actually stagnated or declined. In the medium and long term we again see growth potential in these countries.

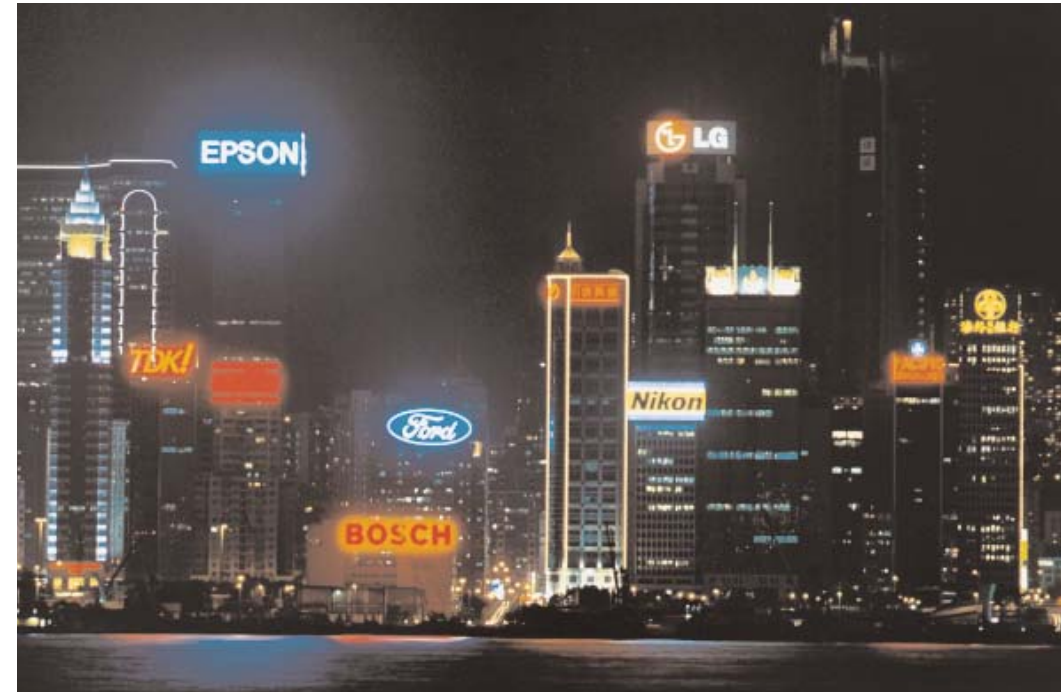
Employees and production outside Germany (1999)

Country	Employees	Automotive equipment	Consumer goods	Communications technology	Capital goods
USA	15,150	■	■		■
Brazil	11,360	■	■	■	■
India	11,250	■	■		■
France	10,750	■	■	■	■
Spain	7,450	■	■		■
Mexico	4,570	■	■		
U.K.	3,860	■	■		
Portugal	3,730	■	■		
Malaysia	2,630	■	■		
Switzerland	2,120		■		

Illuminated sign in the Hongkong skyline: Bosch is also well-known in Asian markets.



North America is our largest foreign market. We manufacture automotive equipment at 18 locations. Photo: Disc-brake assembly in the Clarksville, Tennessee (USA), plant.



Research and Development

The Bosch Group is characterized by its high degree of innovation. That is reflected especially in the number of patents it holds. In 1999, Bosch in Germany applied for 2,050 patents, 14% more than the year before.

The divisions develop the products in their own area independently. On the other hand, our Corporate Research and Advanced Engineering Department is responsible for basic, application-oriented research, for production technology, and for advanced engineering throughout the whole company.

Sensors for state-of-the-art emission-control systems

We are working on selective sensors for the measurement of exhaust-gas components, such as oxygen and nitric oxides. The sensors are used for the engine management and for the on-board diagnosis of catalytic converters. Together with a mathematical model of the catalytic converter, the values are evaluated by the engine-management ECU which controls fuel quantity and A/F mixture composition (Lambda value). In this manner, exhaust gas from gasoline direct-injection vehicles can also be cleaned optimally.

In the production we utilize planar sensor technology. We construct a multi-layer composite of electrochemical cells from ceramic and metallic materials. Our aim is to create more sensitive sensors with shorter response times. This is especially important for exhaust-gas control with cold engine starts.

New method for fine-structuring

Miniaturization is more and more in demand also when it applies to ceramic exhaust-gas sensors in planar technology. Until now, silk-screening processes were generally used to structure conductor paths, electrodes, heaters and sensor elements onto ceramic film. Their resolution is limited to structure widths of around 0.1 millimeter.

We developed a new, economical process of photographic imaging. Among other things, this process permits the generation of high-resistance structures on minimal surfaces.

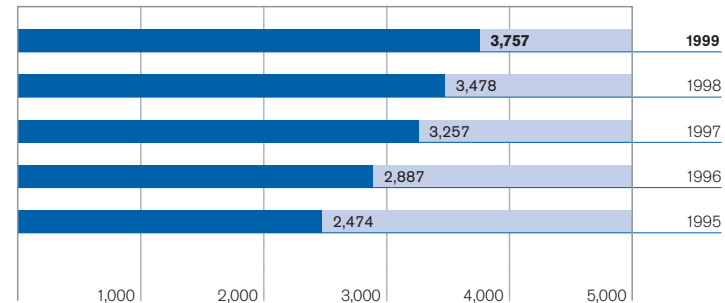
Quality control in injection molding processes

Process and material variations, as well as wear in tools and fittings, can lead to quality fluctuations in the injection molding of plastic components. In order to reduce these, we rely in our production on statistical process models into which we constantly merge the results of periodic sampling in the production process. In particular, this adaptation to actual process conditions helps us to improve the quality of highly demanding plastic elements.

Close-up sensorics to support the driver

We were successful in the economical integration into a single unit of the functions of microwave sensors used for distance and speed measurement in close-range situations. These

Total expenditures for research and development¹
(million DM) Progress 1995–1999



¹ Approximately 11% thereof is spent on corporate research and advanced engineering; the rest on research and development in the business divisions and foreign subsidiaries for product development.

include precrash sensors, blind-spot sensors, and sensors to assist in backing up and adaptive speed control.

For vehicle-speed control under stop-and-go driving conditions we developed a process which, with the aid of only two sensors, allows registration of the area directly in front of the vehicle with adequate local resolution. With this process it is possible to drive even in dense traffic with an automatic distance safety margin and controlled speed adapted to surrounding traffic.

Interaction between human and machine in the automobile

In state-of-the-art vehicles, many information systems are used, such as radio, mobile telephone and navigation device. Future systems will provide driver assistance with adaptive speed control and tracking control to increase the ease and safety of driving.

In order for these systems to exchange information with the driver reliably and unequivocally, uniform and easy to understand operation is necessary, as is clear information about the condition of individual systems. In doing so, it is necessary to synchronize the human ability to process information with the technical possibilities of modern input and output technologies.

For simple and efficient communication between driver and systems, we have developed components for voice-activated operation as well as haptic operational elements. In a simulator and in actual traffic, we are using drivers with different levels of skill to test their interactions with a range of assistance and communications systems. In future, driver actions must be prioritized based on the demands of the actual traffic situation and the effects of the assistance and communications systems must be adapted to these same demands.

Ensuring electromagnetic compatibility

Our products are distinguished by their high degree of electromagnetic compatibility (EMC). This guarantees that they will function reliably even when subject to external electromagnetic interference. In addition, we keep the electromagnetic interference output of our products well inside the legal limits.

Both requirements are increasingly being met with the help of computer-aided methods. To this end we are examining and developing state-of-the-art modeling and simulation processes which are employed, for instance, in the design of electric motors and electronic control devices. Necessary protective steps can then be planned into an early stage of the development.



Mixture formation in the gasoline direct-injection engine takes place in the combustion chamber. We analyze the process with laser spectroscopy in an engine.



Drivers can be unequivocally identified by means of biometric processes such as fingerprint detection based on physiological features. A fingerprint detector integrated in the gear selection lever replaces the ignition key. As soon as the driver's thumb print identifies him as an authorized user, the sensor's surround lights up and the engine can be started.

Employees of the Bosch Group

On January 1, 2000, the Bosch Group employed a workforce of 194,889 worldwide, 5,352 more than a year earlier. Of this increase, about 1,000 resulted from changes in the group of consolidated companies. Employment in Germany rose by 2,562 to 97,919, while employment abroad increased by 2,790 to 96,970. About 58% of our domestic employees were hourly-paid workers – of which 41% were skilled –, 38% were salaried employees, and 4% apprentices.

Labor costs continue to increase

Our labor costs worldwide increased by 4.2% to approximately 16.2 (1998: 15.6) billion DM. The increase in Germany by 4.2% to 10.6 billion DM was mainly the result of significant raises in new union contracts and the rise in the number of employees. Domestic employee-benefit costs increased by 1.0%. For each 100 DM pay for work performed, there were 86 DM additional mandatory, contractual and other social contributions.

New year-end bonuses for managerial staff

In order to further encourage entrepreneurial activities of our managerial employees, we developed our compensation structure further, expanding the portions which are profit and performance based. In addition to taking into account the profits of the worldwide Bosch Group and individual performance in determining the variable year-end bonuses, we will in future also take into consideration the degree by which the results of the respective business unit meet its goals. This provision, which as a start only pertained to the top management echelon, was expanded to include all department heads in the year 2000.

Future executives will be more and more international

During 1999 we hired 2,000 university graduates in Germany, of which 80% were engineers. Because of an increasing lack of engineers in Ger-

many, and with an eye on the growing global nature of our activities, we are hiring ever more foreign university graduates. We are also giving our trainee programs a still more international orientation. Each trainee is required to participate in a six-month project at a foreign location. In filling positions requiring qualified skills and leadership characteristics, we are relying increasingly on the potential of promising employees in our foreign companies.

Using the know-how of older employees

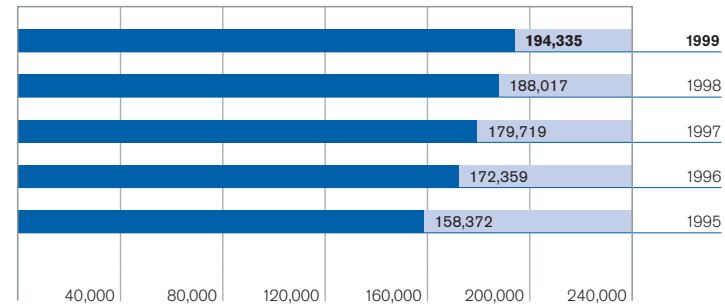
In order to continue to benefit from the experience and knowledge of retired employees, we have established the Bosch Management Support GmbH. This organization employs former Bosch Group employees, typically long-time executives, and offers their services to our divisions and foreign companies. This assistance enables us to bridge temporary capacity bottlenecks and take care of special assignments and projects.

More apprentices hired in Germany

During 1999, 1,236 young people started their apprenticeship in our German plants. That is 8% more than the previous year. Thus, on January 1, 2000, there were a total of 3,839 (January 1, 1999: 3,538) apprentices in training. Approximately 30% of these are being trained in jobs which have come into being since 1997.

Number of employees

(annual averages) Trend 1995 – 1999



These consist primarily of mechatronics apprentices, who receive a combination of mechanical and electronics training, microtechnologists for employment in semiconductor production, and trainees in information and telecommunications technologies.

Training abroad

As far as permitted by country-specific conditions, we also train apprentices at foreign locations using the German dual (classroom and workstation) training model. For instance, during 1999, we began training industrial mechanics at our Turkish plant at Bursa using this model. In 2000 we will also start training electronic technicians there. A course for administrative personnel is also in preparation.

All in all, we train apprentices in more than 20 countries. In order to guarantee the highest level of quality instruction at both domestic and foreign locations, we have formulated guidelines which are in effect worldwide.

Knowledge-management measures

Knowledge is increasingly an important factor for company success. The Robert Bosch Kolleg, an internal institution for continuing education, began a series of seminars in knowledge management. In these seminars, managers and specialists are informed about the many ways in which to more effectively exploit and utilize knowledge.

Pilot project for the promotion of skilled employees

During 1999 we started a pilot project in Germany to enhance the attractiveness of skilled work. About 100 skilled workers began a ten-month part-time training program which in special areas should enable them to take over activities from engineers. This applies particularly to technically skilled jobs in development, work and production planning, quality assurance and production equipment construction, which formerly were performed primarily by academically trained employees. This measure is also a response to the shortage of available engineers in the job market.

Employee survey

A high degree of satisfaction on the part of our employees with their work environment is an important prerequisite for their willingness to perform and for successful cooperation with external and internal customers. In order to ascertain the degree of employee satisfaction, we have started to conduct regular surveys with the employees at our various locations. We will apply the results of these surveys to determine the appropriate measures for improvement.

Appreciation for readiness to perform

As in the year before, the employment situation in 1999 was extremely strained at many locations of the Bosch Group. Only with a high degree of readiness to perform and

flexibility of our employees was it possible to meet customer needs, and guarantee the ability of the company to deliver. We want to thank our employees for their commitment. We also want to express our appreciation to the labor representatives who reacted to the demands in an understanding and cooperative manner and who, especially with regard to work time, made flexible, work-related arrangements possible.



The employees in our plants meet regularly in CIP and quality discussions.



We are treading new paths in recruiting university graduates. In order to attract more engineers for our development activities, we organize recruiting days at which prospective employees get an idea of the development, manufacture and sale of our products.

Financial Statements of the Bosch Group Worldwide

Consolidated Balance Sheet as of December 31, 1999

(million DM)

Assets	Appendix	December 31, 1999	December 31, 1998
Fixed assets	(6)		
Intangible fixed assets		1,643	1,657
Tangible fixed assets		10,909	9,975
Financial investments		1,552	1,071
		14,104	12,703
Current assets			
Leased products		419	449
Inventories	(7)	6,525	5,989
Accounts receivable and other assets	(8)		
Accounts receivable		9,337	7,968
Other receivables and assets		2,910	2,106
Marketable securities		5,216	5,822
Liquid assets		2,178	1,260
		26,585	23,594
Deferred expenses		54	46
		40,743	36,343

Liabilities	Appendix	December 31, 1999	December 31, 1998
Equity capital	(9)		
Capital stock		1,800	1,800
Capital surplus		4,630	4,630
Earned surplus		5,842	4,797
Unappropriated earnings		80	80
Minority interests		646	562
		12,998	11,869
Accruals with valuation reserve portion	(10)	533	67
Accruals			
Accruals for pensions and similar obligations		7,256	6,917
Other accruals	(11)	10,782	9,315
		18,038	16,232
Liabilities	(12)		
Liabilities with banks		2,356	1,979
Accounts payable		4,064	3,557
Other liabilities		2,690	2,575
		9,110	8,111
Deferred income		64	64
		40,743	36,343

Financial Statements of the Bosch Group Worldwide
 Consolidated Statement of Income
 for the period from January 1 to December 31, 1999
 (million DM)

	Appendix	1999	1998
Sales	(15)	54,579	50,333
Changes in finished goods and work-in-progress inventories and other capitalized costs	(16)	743	551
Total operating performance		55,322	50,884
Other operating income	(17)	2,822	2,753
Costs of materials	(18)	-25,734	-23,697
Personnel costs	(19)	-16,229	-15,575
Depreciation of intangible and tangible fixed assets		-3,749	-3,265
Other operating expenses	(17)	-10,854	-9,366
Net income from investments	(20)	95	22
Amortization of financial investments and securities included			
with current assets		-221	-262
Interest income, net of expenses	(21)	251	306
Income from ordinary business activities		1,703	1,800
Taxes on income	(22)	-803	-950
Net income for the year		900	850
Including profit and loss of minority shareholders	(23)	115	66

Financial Statements of the Bosch Group Worldwide
 Capital Flow Statement

(million DM)

	1999	1998
Net income for the year	900	850
Depreciation of fixed assets*)	3,884	3,570
Increase in long-term accruals and accruals with valuation reserve portion	1,588	484
Cash flow	6,372	4,904
Increase in inventories and leased products	-506	-307
Increase in receivables	-2,181	-670
Change in short-term accruals	684	-63
Increase in liabilities	622	258
Additions to funds from business activities (1)	4,991	4,122
Additions to fixed assets	-4,832	-4,488
Retirements of fixed assets	576	242
Application of funds to investment activities (2)	-4,256	-4,246
Dividends 1998/1997	-80	-2,209
Increase in capital stock		300
Increase in capital surplus		1,735
Increase in liabilities with banks	377	266
Other changes in balance-sheet items	-720	-198
Application of funds to financial activities (3)	-423	-106
Change in liquidity (1) + (2) + (3)	312	-230
Liquidity at the beginning of the year	7,082	7,312
Liquidity at the end of the year	7,394	7,082

*) including 19 million DM write-ups in 1999

Financial Statements of the Bosch Group Worldwide

1999 Development of Fixed Assets

(million DM)

	Cost of acquisition or manufacture						Depreciation cumulative to Dec.31, 1999	Net book value as of Dec.31, 1999	Net book value as of Dec.31, 1998	Depreciation current year
	Jan.1, 1999	Changes in the consolidated group	Additions	Transfers	Retirements	Dec.31, 1999				
Intangible fixed assets										
Concessions, patents, trademarks and similar rights										
and assets as well as licenses to such rights and assets	765	27	184	1	403	574	380	194	202	209
Goodwill	2,804	463	17		47	3,237	1,788	1,449	1,454	561
Advance payments	2	-1	1	-1	1				1	1
	<u>3,571</u>	<u>489</u>	<u>202</u>		<u>451</u>	<u>3,811</u>	<u>2,168</u>	<u>1,643</u>	<u>1,657</u>	<u>771</u>
Tangible fixed assets										
Land, leasehold rights and buildings,										
including buildings on land owned by others	6,307	42	231	55	62	6,573	3,627	2,946	2,789	242
Production equipment and machinery	14,355	209	2,032	538	710	16,424	11,283	5,141	4,442	1,913
Other equipment, fixtures and furniture	9,327	64	783	24	980	9,218	7,353	1,865	1,906	822
Advance payments and construction in progress	857	12	760	-617	44	968	11	957	838	1
	<u>30,846</u>	<u>327</u>	<u>3,806</u>		<u>1,796</u>	<u>33,183</u>	<u>22,274</u>	<u>10,909</u>	<u>9,975</u>	<u>2,978</u>
Financial investments										
Investments in affiliated companies	602	-79	494	713	78	1,652	806	846	118	37
Loans to affiliated companies	148	-42			90	16	1	15	143	
Investments in associated companies	1,075		57	-589	91	452	98	354	559	
Other financial investments	382	2	265	-124	12	513	259	254	165	117
Other loans	89	5	8		18	84	1	83	86	
	<u>2,296</u>	<u>-114</u>	<u>824</u>		<u>289</u>	<u>2,717</u>	<u>1,165</u>	<u>1,552</u>	<u>1,071</u>	<u>154</u>
Total fixed assets	<u>36,713</u>	<u>702</u>	<u>4,832</u>		<u>2,536</u>	<u>39,711</u>	<u>25,607</u>	<u>14,104</u>	<u>12,703</u>	<u>3,903</u>

Financial Statements of the Bosch Group Worldwide

Balance Sheet Structure 1995 – 1999

(million DM)



Financial Statements of the Bosch Group Worldwide

Appendix 1999

(1) General remarks

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

In order to ensure better understanding of these financial statements, we combined a number of individual balance sheet and statement of income items into key groupings. These items are stated separately in this Appendix. Required comments for individual items are also contained in this Appendix. The consolidated statement of income follows the format of the total cost method.

(2) Consolidated group

The consolidated statements include Robert Bosch GmbH and 20 domestic as well as 103 foreign subsidiaries. For the first time, we consolidated the newly-established Robert Bosch Finance Corporation, Broadview (Chicago), and the partially consolidated financial statements of ZF Lenksysteme GmbH, Schwäbisch Gmünd, a joint venture with ZF Friedrichshafen AG.

During the year we sold Fr. Hesser AG, Waiblingen, and Signalbau Huber AG, Munich, together with its subsidiary Robot Foto und Electronic GmbH, Düsseldorf.

Several businesses were integrated into other companies both within and outside the consolidated group by way of legal restructuring. These were primarily, Robert Bosch Componenti per Veicoli Spa, Milan; Robert Bosch Industriale e Commerciale SpA, Milan; Nippon ABS Ltd, Yokosuka; Bosch Korea Ltd, Seoul; and Malaysian German Automotive Equipment Sdn Bhd, Penang.

The consolidated statements of BSH Bosch und Siemens Hausgeräte GmbH, Munich and ZF Lenksysteme GmbH (ZFLS), Schwäbisch Gmünd, were included pro rata pursuant to Section 310 of the Commercial Code.

In accordance with Section 296, Paragraph 2 of the Commercial Code, companies lacking operations or having insignificant business volume, were not included with the consolidated financial statements. In addition, we did not include in the consolidation the financial statements of Zexel Corporation, Tokyo, and Bosch Braking Systems Co Ltd, Tokyo, in which we did not acquire majority ownership until 1999 (see Section 296, Paragraph 1, Sub 2 of the Commercial Code).

The equity valuation of specific interests in associated companies was applied in accordance with the book-value method. This valuation pertained to three domestic and six foreign companies. An investment which was reclassified during the year from associated to affiliated companies continued to be accounted for by the equity method.

(3) Principles of classification and valuation

The financial statements of Bosch Group Worldwide include the individual statements of our subsidiaries which conform to uniform principles of classification and valuation.

We adhered to the valuation at lower of cost or market and imparity of gain or loss recognition.

Financial statements of foreign associated companies were not modified to comply with the uniform accounting principles of the consolidated group.

Intangible assets including goodwill resulting from first-time consolidations as well as tangible and financial assets were valued at acquisition cost or cost of manufacture subject to depreciation.

We applied straight-line as well as accelerated depreciation methods. Items of minor value were fully depreciated during the year of acquisition. We applied special depreciation allowances according to tax regulations in all countries.

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.

Additions to interests in associated companies include shares purchased as well as capital contributions and prorated profits. Retirements include prorated losses, dividends paid and shares sold.

We valued inventories at the lower of average purchase or manufacturing cost or market. Manufacturing costs include direct costs and reasonable overhead.

At domestic companies, the Lifo valuation method was used in principle. We used this method also at foreign subsidiaries when accepted by the taxing authorities.

We provided for risks inherent in warehousing and distribution through appropriate deductions. Additional write-downs were taken in cases of unfavorable returns.

Accounts receivable and other current assets were stated at face values less write-downs for individual risks and for general credit risks. Interest-free or low-interest receivables with maturities of more than one year were discounted.

We valued marketable securities included in current assets at the lower of acquisition cost or market.

Special write-downs among current assets of 7 million DM were taken on account of expected price fluctuations.

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

Pension accruals and similar liabilities were determined by the application of actuarial principles and were discounted to reflect present values. For domestic companies, we used a 6% discount rate in accordance with the 1998 guideline tables, while foreign subsidiaries used discount rates prevailing in their respective countries.

In determining the amounts accrued for pending transactions with expected losses, we basically took account of prices and costs expected at the time these transactions would close.

Liabilities were stated at the amounts owed.

(4) Currency translation

Accounts receivable and accounts payable stated in foreign currencies were translated to DM equivalents at the less favorable of the exchange rate at the date of origin, or at the balance-sheet date.

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

Income and expenses were translated at average exchange rates. Differences resulting from the application of average exchange rates versus year-end exchange rates were included with other operating expenses.

(5) Consolidation principles

For capital consolidation of companies or for newly acquired capital shares, we applied the book-value method at the date of acquisition or at the date of first-time consolidation. As far as possible, we allocated amounts subject to capitalization to the respective assets. Remaining amounts were included with goodwill. Negative goodwill resulting from capital consolidation was included with earned surplus.

Receivables and payables, sales, expenses, and income, as well as results within the consolidated group were eliminated.

Profits from sales to the consolidated group by associated companies were not eliminated since they were insignificant.

Deferred tax assets resulting from consolidation measures in the amount of 60 (prior year 81) million DM were included with other assets.

(6) Fixed assets

Extraordinary depreciation amounting to 330 million DM pertained mostly to goodwill and to financial investments.

In accordance with tax regulations, we deducted an extra 26 million DM directly from the acquisition costs of tangible fixed assets. The depreciation was taken pursuant to Section 6b of the Income Tax Law, Section 4 of the Development Area Law, Section 82a of the Income Tax Implementation Regulations and pursuant to local tax laws at our foreign subsidiaries.

Land and investments in associated companies were written up by 3 million DM and 16 million DM, respectively.

The development of fixed assets is presented on pages 46 and 47 of this report.

(7) Inventories

Included with the stated value of inventories, in the amount of 6,525 million DM, are our advance payments of 50 million DM (1998: 45 million DM). On the other hand, advance payments received in the amount of 218 million DM (1998: 201 million DM) were deducted.

(8) Accounts receivable and other assets	Million DM	1999	1998
Accounts receivable		9,337	7,968
including maturities of more than one year		13	17
Other receivables and assets			
Receivables from affiliated companies		655	269
including maturities of more than one year		154	
Receivables from companies in which interests are held		150	112
including maturities of more than one year		-	9
Other assets		2,105	1,725
including maturities of more than one year		252	182
		2,910	2,106
Receivables and other assets		12,247	10,074

(9) Equity capital

The subscribed capital stock of 1,800 million DM and the capital surplus of 4,630 million DM correspond to the respective balance-sheet items of Robert Bosch GmbH.

Revenue surplus accounts consist of the following:

Million DM	1999	1998
Earned surplus of Robert Bosch GmbH	1,240	670
Other earned surplus	4,602	4,127
	5,842	4,797

Unappropriated earnings of the consolidated group are identical to those of Robert Bosch GmbH.

(10) Accruals with valuation reserve portion

Accruals with valuation reserve portion were formed pursuant to Sections 6b and 52 Paragraph 16 of the Income Tax Law, Section 12 of the Reorganization Tax Law and Section 1 of the DDR Investment Law. Our foreign subsidiaries followed local regulations with respect to such items.

(11) Other accruals

Million DM	1999	1998
Accrued taxes	330	296
Other accruals	10,452	9,019
	10,782	9,315

(12) Liabilities

Million DM	1999	Including maturities up to one year	1998	Including maturities up to one year
Liabilities with banks	2,356	467	1,979	564
Accounts payable	4,064	4,064	3,557	3,557
Other liabilities				
Liabilities from acceptances and drafts	118	118	216	216
Liabilities with affiliated companies	104	104	45	45
Liabilities with companies in which interests are held	155	155	114	114
Other liabilities	2,313	2,227	2,200	1,885
	2,690	2,604	2,575	2,260
Total liabilities	9,110	7,135	8,111	6,381

Of the liabilities with banks, 42 million DM were secured by mortgages and another 28 million DM by other liens. Of other liabilities, 10 million DM were secured by mortgages.

Other liabilities contain tax liabilities in the amount of 475 million DM (1998: 465 million DM) and liabilities pertaining to social obligations in the amount of 420 million DM (1998: 352 million DM). Liabilities with shareholders in the amount of 42 million DM pertain to Robert Bosch Stiftung GmbH.

Total liabilities with maturities of more than 5 years amounting to 1,318 million DM included 1,295 million DM of liabilities with banks and 23 million DM of other liabilities.

(13) Contingent liabilities

Million DM	
Contingent liabilities from the issuance or transfer of notes	213
including on behalf of affiliated companies	19
Contingent liabilities from guarantees	328
including on behalf of affiliated companies	20
Contingent liabilities from warranties	29
Contingent liabilities from collateral given for third-party liabilities	13
including mortgages	6

As a partner in two foreign private companies, we are jointly and severally liable in accordance with legal requirements.

(14) Other financial obligations Other financial obligations of significance for an opinion on the financial condition of the company did not exist.

(15) Breakdown of sales Million DM **1999** % 1998 %

Sales by business sectors

Automotive equipment	35,470	65.0	31,797	63.2
Consumer goods	11,757	21.6	11,357	22.5
Communications technology	5,260	9.6	5,014	10.0
Capital goods	2,092	3.8	2,165	4.3
	54,579	100.0	50,333	100.0

Million DM **1999** % 1998 %

Sales by regions

Countries of the European Union	37,641	69.0	34,589	68.7
Rest of Europe	2,392	4.4	2,449	4.9
America	10,852	19.9	10,183	20.2
Asia, Africa, Australia	3,694	6.7	3,112	6.2
	54,579	100.0	50,333	100.0

(16) Changes in finished goods and work-in-progress inventories and other capitalized costs Million DM **1999** 1998

Change in finished goods and work-in-progress inventories	341	184
Other capitalized costs	402	367
	743	551

(17) Other operating expenses and income Expenses resulting from additions to accruals with valuation reserve portion in the amount of 490 million DM are included in other operating expenses. Income from the reversal of accruals with valuation reserve portion in the amount of 26 million DM are included in other operating income.

(18) Costs of materials Million DM **1999** 1998

Cost of raw materials, supplies and merchandise	23,910	21,940
Purchased services	1,824	1,757
	25,734	23,697

(19) Personnel costs Million DM **1999** 1998

Wages and salaries	13,069	12,125
Social security, pension plans, and support payments	3,160	3,450
of which pension plans	806	1,141
	16,229	15,575

Average numbers of employees during the year, by region:

	1999	Including	1998	Including
	Total	BSH	Total	BSH
		ZFLS		
		(prorated)		(prorated)

Countries of the European Union	132,749	15,423	127,568	11,778
Rest of Europe	10,527	3,112	9,369	2,574
America	31,592	2,812	32,082	2,598
Asia, Africa, Australia	19,467	1,648	18,998	33
	194,335	22,995	188,017	16,983

(20) Net income from investments Million DM **1999** 1998

Income from investments	35	23
including affiliated companies	11	10
Result from associated companies	60	-1
	95	22

(21) Interest income, net of expenses Million DM **1999** 1998

Interest from loans included		
with financial investments	6	10
including affiliated companies	4	8
Other interest and similar income	497	584
including affiliated companies	11	6
Interest and similar expenses	- 252	- 288
including affiliated companies	- 1	- 1
	251	306

(22) Tax expenses	Million DM	1999	1998
Taxes on income		803	950
Other taxes		241	226
		<u>1,044</u>	<u>1,176</u>

Other taxes are included in other operating expenses. Utilizing the Tax Relief Act for 1999/2000/2002, we set up an accrual with valuation reserve portion totalling 469 million DM which reduced the after-tax profit by approximately 225 million DM.

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

(23) Profit and loss of minority shareholders	Million DM	1999	1998
Profits		131	84
Losses		-16	-18
		<u>115</u>	<u>66</u>

(24) Compensation of the members of the Board of Management and of the Supervisory Council

During 1999, the aggregate compensation of the members of the Board of Management of Robert Bosch GmbH amounted to 11 million DM. Former members of the Board of Management and their dependents received 11 million DM, and the members of the Supervisory Council one million DM. Accruals at Robert Bosch GmbH for pension liabilities for former members of the Board of Management and their dependents amounted to 96 million DM. The members of the Supervisory Council and the Board of Management of Robert Bosch GmbH are listed on pages 4 and 5.

(25) 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 Court.	
Stuttgart, March 3, 2000	Robert Bosch GmbH	The Board of Management

Auditors' report

We have audited the consolidated financial statements and the group management report prepared by Robert Bosch GmbH, Stuttgart, for the business year from January 1 to December 31, 1999. The preparation of the consolidated financial statements and group management report in accordance with German commercial law is the responsibility of the Company's management. Our responsibility is to express an opinion on the consolidated financial statements and the group management report based on our audit.

We conducted our audit of the consolidated annual financial statements in accordance with §317 HGB (German Commercial Code) and the generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW). The applied standards are also in accordance with the International Standards on Auditing. Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with German principles of proper accounting and in the group management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Company and evaluations of possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the internal control system and the evidence supporting the disclosures in the consolidated financial statements and the group management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of the companies included in consolidation, the determination of the companies to be included in consolidation, the accounting and consolidation principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements and the group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with German principles of proper accounting. On the whole the group management report provides a suitable understanding of the Group's position and suitably presents the risks of future development.

Stuttgart, March 3, 2000

Ernst & Young
Deutsche Allgemeine Treuhand AG
Wirtschaftsprüfungsgesellschaft

Dörner Dr. Pfitzer
Wirtschaftsprüfer Wirtschaftsprüfer

Major Companies of the Bosch Group Worldwide (as of December 31, 1999)

Name	Location	Equity Capital % owned ¹	Equity Capital ² million DM	Sales ² million DM	Profit or loss ² million DM
Germany					
Blaupunkt-Werke GmbH	Hildesheim	100	186	1,841	PLT ³
BSH Bosch und Siemens Hausgeräte GmbH ⁴	Munich	50	1,235	10,725	55
Bosch Telecom GmbH	Stuttgart	100	539	4,712	PLT ³
Bosch Telecom Leipzig GmbH	Leipzig	100	44	212	PLT ³
BT Magnet-Technologie GmbH	Herne	50	60	141	10
Hawera Probst GmbH	Ravensburg	100	39	131	6
Knorr-Bremse Systeme für Nutzfahrzeuge GmbH ⁴	Munich	20	187	1,268	29
Robert Bosch Fahrzeugelektrik Eisenach GmbH	Eisenach	100	64	570	23
VB Autobatterie GmbH	Hanover	20	120	405	22
ZF Lenksysteme GmbH ⁴	Schwäbisch Gmünd	50	547	2,483	31

Foreign Countries

Europe					
NV Robert Bosch SA	Anderlecht/Belgium	100	44	388	5
Robert Bosch Produktie NV	Tienen/Belgium	100	135	437	29
Robert Bosch A/S	Ballerup/Denmark	100	42	194	4
Bosch Telecom Danmark A/S	Pandrup/Denmark	100	68	827	45
Robert Bosch (France) SA ⁴	Saint-Ouen (Paris)/ France	100	592	3,757	-37
Atco-Qualcast Limited	Stowmarket, Suffolk/U.K.	100	26	156	1
Robert Bosch Ltd	Denham/U.K.	100	231	1,230	61
Worcester Group plc ⁴	Worcester/U.K.	100	56	370	24
Robert Bosch SpA ⁴	Milan/Italy	100	85	1,274	-11
Robert Bosch BV	Hoofddorp/Netherlands	100	43	300	12
Van Doorne's Transmissie BV	Tilburg/Netherlands	100	19	83	-6
Robert Bosch A/S	Trollaaasen (Oslo)/ Norway	100	22	110	2
Robert Bosch AG	Vienna/Austria	100	132	580	22
Blaupunkt Auto-Rádio Portugal Lda	Braga/Portugal	100	54	600	-3
Vulcano Termo-Domésticos SA	Aveiro/Portugal	100	161	308	35
Robert Bosch AB	Kista (Stockholm)/ Sweden	100	19	157	8
Robert Bosch Internationale Beteiligungen AG	Zurich/Switzerland	90	719		73
Robert Bosch AG	Zurich/Switzerland	100	27	249	7
Scintilla AG	Solothurn/Switzerland	85	690	1,081	162
Robert Bosch España SA ⁴	Madrid/Spain	100	437	2,379	48
Robert Bosch spol. s r.o.	České Budějovice/ Czech Republic	100	74	290	13
Bosch Diesel spol. s r.o.	Jihlava/Czech Republic	100	45	166	8
Bosch Sanayi ve Ticaret AS	Bursa/Turkey	100	131	343	35

Name	Location	Equity Capital % owned ¹	Equity Capital ² million DM	Sales ² million DM	Profit or loss ² million DM
America					
Robert Bosch Ltda	Campinas/Brazil	100	389	1,401	16
Associated Fuel Pump Systems Corporation	Anderson, SC/USA	50	210	309	56
Automotive Electronic Control Systems Inc	Anderson, SC/USA	51	65	157	11
Robert Bosch Corporation ⁴	Broadview (Chicago)/USA	100	2,025	7,850	17
S-B Power Tool Company ⁴	Chicago/USA	100	388	1,563	129
Vermont American Corporation ⁴	Louisville/USA	50	390	735	28
Asia, Australia					
Motor Industries Co Ltd	Bangalore/India	51	226	644	47
Bosch KK	Yokohama/Japan	100	157	661	7
Zexel Corporation	Shibuya-ku (Tokyo)/Japan	50 ⁵	1,259	2,641	-43
Nippon Injector Corporation	Odawara-shi/Japan	35	71	126	6
KEFICO Corporation	Kunpo-Si/Korea	35	130	349	9
Robert Bosch Korea Mechanics and Electronics Ltd	Chonan/Korea	100	42	138	10
Robert Bosch (Malaysia) Sdn Bhd	Penang/Malaysia	100	56	191	20
Robert Bosch (South East Asia) Pte Ltd	Singapore/Singapore	100	43	265	7
Robert Bosch (Australia) Pty Ltd ⁴	Clayton (Melbourne)/ Australia	100	145	787	21

- Shares held directly and indirectly by Robert Bosch GmbH
- Translation of foreign currencies pertaining to equity capital and profit and loss stated at average exchange rates at the balance-sheet date; sales stated at average exchange rates of the year
- Profit and loss transfer agreement (PLT)
- Represents a consolidated sub-group
- Exact equity capital ownership 50.04%

Financial Statements of Robert Bosch GmbH

Balance Sheet as of December 31, 1999

(million DM)

Assets	December 31, 1999	December 31, 1998
Fixed assets		
Intangible fixed assets	–	–
Tangible fixed assets	3,279	3,112
Financial investments	6,222	4,076
	9,501	7,188
Current assets		
Inventories	2,175	2,035
Accounts receivable and other assets		
Accounts receivable	3,579	2,999
Other receivables and assets	2,752	2,635
Marketable securities	4,394	4,786
Liquid assets	803	318
	13,703	12,773
Deferred expenses	4	8
	23,208	19,969
Liabilities		
Equity capital		
Capital stock	1,800	1,800
Capital surplus	4,630	4,630
Earned surplus	1,240	670
Unappropriated earnings	80	80
	7,750	7,180
Accruals with valuation reserve portion	400	16
Accruals		
Accruals for pensions and similar obligations	4,449	4,333
Other accruals	5,985	5,296
	10,434	9,629
Liabilities		
Liabilities with banks	384	4
Accounts payable	1,093	994
Other liabilities	3,144	2,146
	4,621	3,144
Deferred income	3	–
	23,208	19,969

Financial Statements of Robert Bosch GmbH

Statement of Income

for the period from January 1 to December 31, 1999

(million DM)

	1999	1998
Sales	29,061	26,473
Changes in finished goods and work-in-progress inventories and other capitalized costs	185	209
Total operating performance	29,246	26,682
Other operating income	2,172	1,841
Costs of materials	–17,632	–15,737
Personnel costs	–6,670	–6,351
Depreciation of intangible and tangible fixed assets	–1,203	–1,249
Other operating expenses	–5,144	–4,432
Net income from investments	110	300
Amortization of financial investments and securities included with current assets	–356	–316
Interest income, net of expenses	308	374
Income from ordinary business activities	831	1,112
Taxes on income	–181	–512
Net income for the year	650	600
Additions to surplus accounts	–570	–520
Unappropriated earnings	80	80

Ten Year Statistics Bosch Group Worldwide

(million DM)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Sales	31,824	33,600	34,432	32,469	34,478	35,844	41,146	46,851	50,333	54,579
Foreign share as a percentage of sales	51	48	47	49	54	56	61	65	65	66
Research and development expense as a percentage of sales	2,042	2,144	2,302	2,215	2,255	2,474	2,887	3,257	3,478	3,757
Investments in tangible fixed assets including domestic	2,790	2,273	2,038	1,552	1,578	2,056	2,419	2,905	3,773	3,806
including foreign	1,708	1,464	1,347	990	960	1,255	1,270	1,376	1,930	1,746
as a percentage of sales	8.8	6.8	5.9	4.8	4.6	5.7	5.9	6.2	7.5	7.0
as a percentage of depreciation	162	126	103	85	90	117	117	125	148	128
Depreciation on tangible fixed assets	1,725	1,799	1,976	1,836	1,747	1,757	2,059	2,321	2,546	2,978
Employees – annual average – (000 omitted)	180	181	177	165	156	158	172	180	188	194
including domestic	118	117	113	104	95	92	91	91	94	97
including foreign	62	64	64	61	61	66	81	89	94	97
as of January 1 of following year	181	177	170	157	154	157	176	181	190	195
Personnel costs	10,718	11,403	11,838	11,692	11,439	11,476	13,017	14,359	15,575	16,229
Total assets	23,544	24,247	24,452	25,447	27,373	28,504	32,273	34,906	36,343	40,743
Fixed assets as a percentage of total assets	7,147	7,467	7,769	7,003	6,650	6,957	10,784	12,013	12,703	14,104
Equity capital as a percentage of total assets	7,050	7,471	7,859	8,304	8,563	9,038	9,527	11,377	11,869	12,998
Cash flow as a percentage of sales	3,104	3,267	3,501	3,717	3,765	3,245	3,539	5,219	4,904	6,372
Net income for the year	560	540	512	426	512	550	500	1,659	850	900
Unappropriated earnings (Dividends of Robert Bosch GmbH)	43	43	60	60	60	68	68	2,209	80	80