

Automotive Industry

Light/Vehicle Modules

Electronics





Final technical inspection of a signal lamp at MAESA in Spain.

Hella – Technology Partner for the Automotive Industry

Strategy and Market Development: For the automotive supplier industry, fiscal year 2003-2004 was marked by subdued development of current markets, heavy competitive pressure, and further internationalization. In this challenging environment, Hella successfully dedicated itself to its customers. With company-wide sales to the automotive industry of € 2,341.3 million, and a 3.4 percent increase, we achieved a positive result for the fifth successive year. This result is also due to our unceasing efforts to take advantage of internal synergies and potential cost savings.

Positive Business Development

Our company continued to set its course for growth in spite of the weak economic situation in its home market of Germany. We achieved above-average expansion of our activities for the automotive industry, in contrast to the general business trend for the sector. This positive trend was primarily due to our international business.

With double-digit growth rates, the Chinese market occupied an increasingly important position; European and American car manufacturers were more frequently using it as a procurement market. In spite of a generally difficult situation, our company strengthened its own market position and further improved its market and technology leadership, particularly in the area of complex lighting functions such as xenon, Bi-Xenon, and intelligent swiveling systems (AFS).

Orders Up

One outstanding event in the area of new acquisitions was the successful resumption of our electronics business with BMW. The order for the “overhead function center” at BMW reflects the trust in our experience in the area of networked overhead consoles.

During the past fiscal year we continued to increase our market share for pedal sensors all over the world; the American market with its local production was a particular focus point. Successful acquisitions allowed us to stabilize capacity utilization for lighting devices at a high level. Overall, we also defended our market position through new orders and expanded it in important sectors.



Hella Dedicated to Customer Satisfaction

The results for 2003-2004 confirm our strategy. The automotive business earns its living from vital impulses for passenger safety, comfort, and design. In these areas, Hella is a reliable partner for car manufacturers. As a medium-sized company, we respond fast and flexibly, and offer intelligent solutions. The benefit to customers is the main focus of every one of our activities. Our "Triple-I" company philosophy of Innovation, Integration, and Internationality offers customers and partners the maximum level of quality and service.

Quality is also an internal matter for us: Our company continuously invests in its employees, the organization, and development and production processes that enable us always to offer the latest technology and new trends under convincing terms.

Innovations: Successful with New Developments which are Ready for the Market

An unbroken chain of new product launches over decades testifies to the innovative strength of our company. We are acknowledged technical leaders in the target segments of complex lighting technology, convenience electronics, and sensor technology. We successfully met this challenge again during the past fiscal year. Thanks to the world-first implementation of an LED front light function, Volkswagen was able to offer customers the first LED daytime running light in the Audi A8 W12.

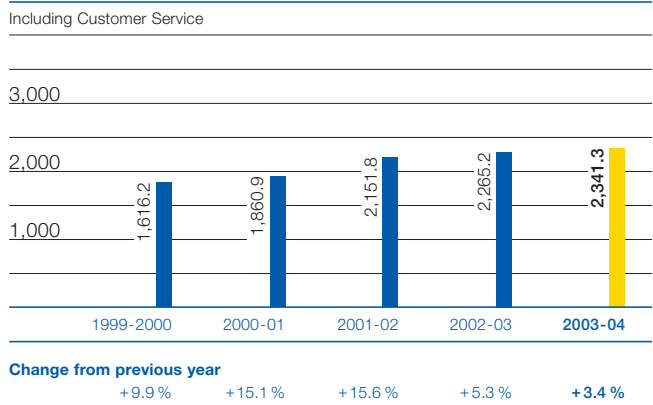
Important product startups during the last fiscal year were the BMW E60 5 Series, the VW Golf A5, and the Opel Astra; our company supplies all lighting systems and vehicle electrical system control units for the Opel. The vehicle electrical system (PASDS) that was successfully used in the Astra is the first product of our subsidiary Intedis, which we founded in conjunction with LEONI Bordnetz-Systeme GmbH & Co. KG, to be used in series production. Both startups are a particular challenge due to the high quantities and the use of innovative lighting technologies.

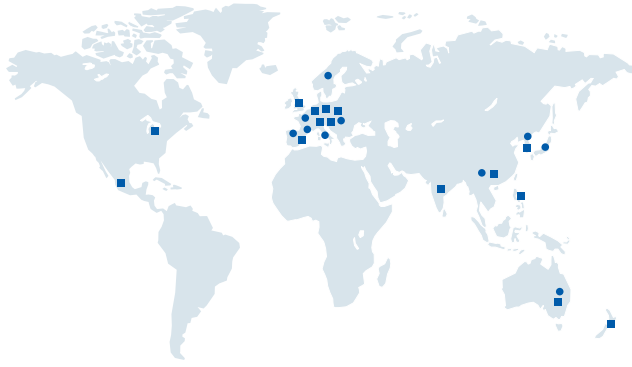
Award-Winning Innovative Strength

Awards demonstrate both our innovative strength and the satisfaction of our customers. We received an "Honorable Mention" as part of the Automotive News Pace Award competition for special achievement in the development of the Intelligent Battery Sensor.

The Quality Achievement Award from Nissan USA occupies a special place for Hella among awards from customers. Our American subsidiary Hella Electronics Corporation received the award for its electronic pedal sensor, demonstrating how one type of production technology was successfully exported.

Automotive Industry Sales (Hella Group, in million €)





Sales, Development, and Production Presence for the International Automotive Industry

	■ Production Companies	● Sales Companies
Europe		Hella KGaA
Germany	Hella KGaA Hueck & Co., Hella Umform- und Stanztechnik GmbH, HBPO GmbH, Behr- Hella Thermocontrol GmbH, D-Tech GmbH Antriebstechnik und Mikroelektronik, Hella Fahrzeugkomponenten GmbH, Bremer Werk für Montagesysteme GmbH, Hella-Behr Fahrzeugsysteme Meerane GmbH, Hella-Micron Engineering GmbH, Hella Leuchten-Systeme GmbH, Hella Werkzeugbau Paderborn GmbH, Hella Innenleuchten-Systeme GmbH, Intedis GmbH & Co. KG	Hueck & Co.
France		Hella S.A.
Great Britain	Hella Manufacturing Ltd.	
Italy		Hella S.p.A.
Sweden		KG Knutsson
Slovakia	Hella Innenleuchten-Systeme Bratislava s.r.o., Hella-Behr Slovakia s.r.o., Hella Slovakia Front-Lighting s.r.o., Hella Slovakia Signal-Lighting s.r.o.	Hella Slovakia Front-Lighting s.r.o., Hella Slovakia Signal-Lighting s.r.o.
Slovenia	Hella Lux Slovenija d.o.o.	Hella Lux Slovenija
Spain	Compañía Electrónica del Automóvil, S.A., Manufacturas y Accesorios Eléctricos, S.A., Hella-Behr Automotive Iberica S.L.	Compañía Electrónica del Automóvil, S.A., Manufacturas y Accesorios Eléctricos, S.A.
Czech Republic	Hella Autotechnik spol. s.r.o., Hella Autotechnik Nova s.r.o., Hella-Behr s.r.o.	Hella Autotechnik spol. s.r.o.
NAFTA		
Mexico	Equipo Automotriz Hemex S.A. de C.V., Tec-Tool S.A. de C.V., Electro Optica S.A. de C.V., Hella Front End S.A. de C.V.	
USA	Hella Electronics Corporation, Hella-Behr Vehicle Systems Inc., Hella Lighting Corporation	Hella-Behr Vehicle Systems Inc.
Asia-Pacific		
Australia	Hella Australia Pty Ltd.	Hella Australia Pty Ltd.
China	Changchun Hella Automotive Lighting Ltd, Hella Changchun Tooling Co., Ltd., Hella Changchun Development Lighting, Hella Shanghai General Electronics Co., Ltd., Hella Shanghai Development Electronics	HAP Representative Office Shanghai
India	Padmini Engineering Private Limited	
Japan		Hella Asia Pacific Liaison-Office
South Korea	Hella Korea Inc., Hella-Samlip Electronics Co. Ltd.	Hella Asia Pacific Korea Liaison-Office
New Zealand	Hella-New Zealand Limited	

Integration: Network Strategy Continues Efficiently

Integration is both our hallmark and our strategy. To offer the best possible solutions to our customers, we have been cooperating successfully with strategic partners for a long time now. We work with our partners and suppliers to offer intelligent project management and solutions with practical applications to meet every challenge. We combine in-house and external know-how across international borders, and we network experts in lean organizations, thereby achieving top quality and reducing costs.

Strategic partnerships in 2003-2004

Our network strategy again made a major contribution to the success of our company during the year under review. We contributed Hella-Behr Fahrzeugsysteme GmbH of Lippstadt, our joint subsidiary with Behr GmbH & Co. of Stuttgart, to a new joint venture. The creation of HBPO GmbH of Lippstadt, which is a subsidiary of Behr, the French Plastic Omnium group, and Hella, is a deliberate step toward positioning ourselves as a complete module supplier to the automotive industry.

We worked jointly with partners in cooperative ventures in 2003-2004 to further expand our range of products and services for the automotive industry. In the area of lighting technology we are cooperating with Stanley Electric Co. Ltd., Japan. In the development of air conditioning and cooling systems we are cooperating with Behr GmbH & Co.



Series production of signal lamps at Hella's Paderborn competence center started in 1999.

The joint venture Behr-Hella Thermocontrol GmbH is a European market leader in electronic control units for vehicle air conditioning. We are developing intelligent, optimized vehicle electrical systems with integrated electronics, lighting, and wiring at Intedis GmbH & Co. KG of Würzburg, a joint venture with LEONI Bordnetz-Systeme GmbH & Co. KG of Kitzingen.

Cooperation with Samlip Industrial Co. Ltd. of Korea has been affirmed by Hella's stake in the company. In addition to existing joint ventures for electronics and modules, we have now set the course for increased cooperation in the area of lighting technology.

Internationality: Close to Customers All Over the World

Maintaining an international presence and staying close to the automotive industry are self-evident to us. With 65 manufacturing facilities, subsidiaries, and sales offices, as well as strategic partners worldwide, we have contact partners for customers all over the globe. This has enabled us to become familiar with the challenges of the international automotive industry and to achieve an outstanding performance.

Showcase for Hella: Trade Fairs in 2003-2004

A high point of the reporting period was participation in the IAA 2003 in Frankfurt, where Hella had the opportunity to demonstrate its innovative products to a wide audience. In North America we jointly held in-house fairs with Intedis at DaimlerChrysler and Ford. We also introduced ourselves to an interested audience at the SAE Motor Show in Detroit. The very successful in-house fairs at PSA and Renault in Paris, where we renewed and strengthened important contacts, were an important step in our strategy for the French market.

Environmental Objectives are Corporate Objectives

Environmental protection, which does not directly add value to a product, faces challenges in times of strong competition. We have responded to this with our location-based environmental programs that both lessen the burden on the environment and save money. We are happy to say that we made significant savings on waste disposal and energy costs during fiscal year 2003-2004.

We are successively examining our business processes from the viewpoint of economy and ecology. As part of our environmental management system, we quantify savings and show their economic effect. Another strategic objective of environmental protection is the increased international orientation of our environmental activities. This is why we introduced the SAP "Environmental Health and Safety" module during the year under review.

Future Market Challenges

Price pressure from our customers is once again on the rise, which we see as a particular challenge both over the past twelve months and in the future. We are confronting it by consistently identifying and taking advantage of cost-cutting potential in all of our companies. Structural measures introduced during the year under review support our efforts to safeguard the German location for the long term and to drive on further our success in the business divisions Light and Electronics.

The increase in competitive pressure on the lighting sector is particularly sharp in Europe, in our view. By successfully establishing two production facilities in Slovakia, we have laid the foundation for successful operation on the market, even as these challenges increase.



Light: Hella stands for innovative leadership in the area of motor vehicle lighting. With a market share in Europe of over 60 percent, we are the market and technological leader in the area of xenon lighting systems. Sales of € 1,257.4 million in fiscal year 2003-2004 sent us further on our course for success in the business division Light. We devoted major energy to the market launch of dynamic lighting systems, and we are now supplying them for series production for nine passenger car model series from various manufacturers.

Series Production of Dynamic Bend Lighting a Success

Dynamic bend lighting systems nearly double the range of the low beam in tight bends. The Hella system swivels the Bi-Xenon projection modules, which produce low and high beam, by up to ± 15 degrees according to the specific algorithms of each customer. Hella brought the world's first dynamic bend headlamps onto the market in spring 2003, for the Mercedes E-Class.

The Bi-Xenon swiveling module began series production during the year under review and was much in demand as series-produced special equipment in the BMW 5 Series and the Opel Signum. In addition to the Bi-Xenon swiveling module, the Opel Signum is also equipped with an automatic adaptive cornering light that greatly improves the lighting of the relevant traffic area, especially in tight bends and at intersections. This makes it the first static-dynamic system in a series-produced vehicle on the world market.

Headlamp Systems for Different Market Segments

Our company is today developing and manufacturing bend lighting systems for nine passenger car model series, including the BMW X5, the Opel Astra, and the Mercedes E-Class, in addition to those mentioned above. Hella's VARILIS® concept is

based on a high-quality modular system with many development and diversification capabilities. Halogen, xenon, Bi-Xenon, and dynamic bend lighting are already in series production. Additional applications are in the preparatory phase. To be able to equip more favorably budgeted headlamp concepts with the new lighting technology as well, our experts have developed a Bi-Halogen swiveling module that combines the road illumination typical of halogen lamps with the complete dynamic scope of the xenon swiveling system.

Taking off for the Technology of the Future

We are currently working on the market maturity of situation-adaptive headlamp systems for even more driving safety and comfort. Our variable intelligent lighting system VARILIS® offers fully-automatic lighting control that adjusts the light distribution to the type of road – highway, freeway, or city street – and can also distinguish between left-hand and right-hand traffic. We anticipate that international authorities will approve the necessary set of rules and regulations for the new system by 2006.

Business Division Light

(Not Including Frontend Modules), Hella Group

	2003-04	(+/-)	2002-03	2001-02	2000-01	1999-2000
Sales in million €	1,257.4	(+13.7 %)	1,105.7	1,025.5	880.5	763.1
Employees	10,851	(+5.4 %)	10,298	9,612	9,635	9,490
R & D expenditure in million €	55.8	(-19.6 %)	69.4	63.3	56.8	53.9



Final visual check of a plastic cover lens.

New LED Daytime Running Light Saves Energy

Several studies and experience in Scandinavia have shown that driving with lights on during the day as well significantly improves traffic safety. This is why the European authorities are now holding intensive discussions on requiring drivers to use lights during the day. The first car manufacturers are already offering daytime running light as a separate element in the headlamp.

Using a separate signal function not only increases warning effectiveness but also reduces fuel consumption and allows the use of light sources with the same service life as that of the vehicle. For the Audi A8 W12, Hella used for the first time worldwide a module with five high-performance LEDs, realizing a daytime running light with a power consumption of only eight watts.

Modern Design Concept for Headlamps

We are developing a novel design concept for the Mercedes SLK. By using translucent material in the shield, we obtain a unique light effect that contributes to the vehicle's individual night design. Diffused light from the headlamp module shines through the material, causing the appearance of the vehicle to change depending on use of the lighting functions.

Design and Efficient Technology for Combination Rear Lamps

We have used new indirect lighting technology for the first time in the combination rear lamps of the Mercedes SLK. The LEDs are no longer placed on individual carriers of the vehicle contour, but sit on a horizontally-laid circuit board that is cut in the shape of a curve. Light control and adjustment of the shape to the vehicle contour are handled by reflector segments located underneath. In our development of new stylistic alternatives for combination rear lamps, we have set new trends with the first-time use of translucent material in the lamps of the Opel Astra.

We are currently working on the development of a dynamic stop light (ASIGNIS®) that is activated depending on the rate of deceleration: The harder the driver brakes, the more LEDs light up in warning. This and other activities related to intelligent signal functions are currently being discussed by legislative authorities.

Interior Lighting Comfort

Ambient interior lighting in vehicles is increasingly popular in today's mobile world. Using the latest lighting technology has a positive influence on wellbeing and driving safety. Hella has been developing groundbreaking lighting concepts for the interiors of mid-size and luxury cars since 1994.

One high point during the year under review was the completion of the overhead console of the Porsche Cayenne, with interior lighting and reading lamp functions, as well as numerous additional integrated electronic components. The order is visible evidence of our company's major potential for know-how integration. We have used a flexible printed circuit board for the first time as the connection technology for the LED light guide technology used for ambient interior lighting. In future series production we will use this technology on the outside area of the door to illuminate the area in front of the vehicle.

Outlook

In relation to our headlamp developments, we are working intensively on the market penetration of our bend lighting systems as well as on the first development projects with full AFS (Advanced Frontlighting Systems) function. We anticipate great dynamism in coming years with regard to the daytime running light function and are in a good position with our concepts. We are working on the ambitious project of realizing a front headlamp complete with LED light sources by 2008.

New functions such as our ADILIS night vision system result from the interplay of light and electronics. Signal lamps will also strongly influence styling in the future, and in addition to new styling options, the interplay of light and electronics will also be used at the rear of the vehicle with the introduction of functionally-adapted combination rear lamps. In the vehicle interior, the production of light and the introduction of new light sources will ensure numerous innovations in the coming years.



A specialist in Meerane assembles a frontend module.

Light/Vehicle Modules: One highlight for Hella in the area of frontend modules during reporting year 2003-2004 was the creation of the joint venture HBPO GmbH. The share of HBPO projects in the market as a whole developed well in 2003-2004. Today around 1.5 million vehicles all over the world contain frontend modules from the new systems developer, whose long-term objective is a 30 percent market share.

Strategic Corporate Development

Hella-Behr Fahrzeugsysteme GmbH of Lippstadt was a specialist in the development and assembly of frontend modules, with an emphasis on the realization of lighting technology, engine cooling, and structural elements. The company, a successful joint venture of Behr and Hella, ended fiscal year 2003 with good success. In 2004 the company was contributed to the new company HBPO GmbH, which has its registered offices in Lippstadt.

Unmatched Anywhere in the World

The new company HBPO is a subsidiary of Behr, Hella, and the new French partner Plastic Omnium Automotive Exterior. It is the only company in the world that specializes in the development and production of frontends. With this exclusive service, the business partners are keeping an eye on the future when fulfilling the requirements of the international automotive market, and are creating an excellent platform for new developments in the frontend segment which will meet the needs of the market. In addition to crash worthiness and pedestrian protection, the new company fulfills important requirements in the areas of radiator ventilation and radiator aerodynamics, as well as design.

New Customers Convinced

Frontend modules are complete assembly units essentially consisting of lighting technology, engine cooling with condenser, assembly carriers and cross-members, crash-box components, electronics, locks, air duct parts, and bumpers. Thanks to this portfolio, the company was able to acquire BMW, Audi, Ford, and Chrysler as new customers.

A survey has shown significant improvement in the satisfaction of existing customers with quality assurance, purchasing, and development. To promote innovative development, HBPO increased its investments in R & D from € 5.8 million to € 6.3 million during the reporting period, a level that will be maintained in coming years.



Strong Growth in New Markets

Thanks to new developments and product revisions, HBPO was able to triple growth compared with previous years (as the company HBF), which had a positive effect on locations including Meerane, Germany, and Lozorno, Slovakia. Product competence, project management, assembly, and logistics were equally in demand. The company also took over the Hella Group's production location in Puebla, Mexico, on January 1, 2004.

A Competent Systems Integrator

The company will be acting as systems integrator for the customer BMW for the first time, assuming responsibility for complete development and assembly of a frontend system. HBPO will handle frontend integration, including project management, supplier management, and logistics.

An Emphasis on Series Startups

During the year under review, the company today known as HBPO concentrated on series startups for the DaimlerChrysler Vito/Viano, the VW Golf A5, the Kia Cerato, the Kia Picanto, and the Hyundai Tucson. Every startup included the sampling and release of components and negotiations on contracts and call-off structures with supplier partners. The production locations began operation and were tested on site. When the production plant was built, employees were trained and staffing of the line was ensured.

Alternative Cell-based Assembly Introduced

During the past fiscal year, the company introduced cell-based production in the case of the assembly of the frontend modules. This is a non-cycled assembly system that allows lower throughput times to be achieved in production. The system of cell-based assembly is distinguished by high flexibility in the case of different assembly variants and numbers of units.

Outlook

HBPO GmbH will consistently pursue networking with Hella, Behr, and Plastic Omnium in the coming years. International cooperation and strong international synergies played an important role during the year under review and will continue to grow in the future. The company is seeking profitable growth in its main markets.

Vehicle Modules, Hella Group

	2003-04	(+/-)	2002-03	2001-02	2000-01	1999-2000
Sales in million €	143.0*		175.3	230.0	239.6	152.9
Employees	382	(-9.0%)	420	369	428	205
R & D expenditure in million €	6.3	(+8.6%)	5.8	4.7	4.4	5.3

* First-time 50 percent share (previously 100%) of the joint venture with Behr.



Fully-automatic equipping of printed circuit boards.

Electronics: In the business segment Vehicle Electronics, Hella was active in the key areas of driver assistance systems and innovative vehicle electrical systems during fiscal year 2003-2004. With sales of € 940.9 million and successful business by the joint ventures Intedis and Behr-Hella Thermocontrol, our company further improved its market position in this segment thanks to intelligent overall solutions. We were also successful in acquiring new customers worldwide for our services during this fiscal year.

Expansion of Activities

Our company has committed itself to the growing Chinese market by entering into a joint venture with Xiamen Hongfa Electroacoustic Co., Ltd. in China for the production of relays, and with the creation of a development center in Shanghai. At the same time, we strengthened our presence in Germany in a joint venture with Micron Electronic Devices AG of Neutraubling, and with the cooperation in battery management with AKKUMULATORFABRIK MOLL GmbH + Co. KG of Bad Staffelstein.

Our customers endorsed our successful portfolio at the IAA 2003 in Frankfurt. We also improved our position with US vehicle manufacturers thanks to the "NAFTA" roadshow. We received very positive feedback during in-house fairs at DaimlerChrysler and Ford.

Customers Benefit from Intelligent Sensor Technology

Sensors are the sensory organs of modern vehicle systems. We offer a high-tech product portfolio to improve traffic safety and comfort. Series production of the Intelligent Battery Sensor, a joint development with BMW and AUTOKABEL, began during fiscal year 2003-2004. It is the only series sensor that can be installed in the available installation space of the battery terminal. It makes cost savings possible in production and in ongoing series production, and also prevents exhaustive discharge of the battery.

This Hella product received an "Honorable Mention" as part of the Automotive News Pace Award competition in 2004.



Business Division Electronics, Hella Group

	2003-04	(+/-)	2002-03	2001-02	2000-01	1999-2000
Sales in million €	940.9*		984.2	896.2	740.9	675.8
Employees	5,296	(+ 4.9 %)	5,049	5,001	5,595	5,363
R & D expenditure in million €	102.1	(+16.7 %)	87.5	75.7	68.2	57.9

* First-time 50 percent share (previously 100 %) of the joint venture with Behr.

Prize-Winning Driver Assistance System

Assistance systems are becoming increasingly important, since they have been shown to reduce a driver's potential for having an accident. We received the first series order in Europe for the Hella Lane Change Assistant during the reporting period. Moreover, Hella's Lane Departure Warning product, a camera-based lane recognition system, received second prize at the L'Equip Auto 2003 trade fair in Paris.

Intedis: A Single Source for Innovative Vehicle Electrical Systems

Vehicle electrical systems increasingly include electrical basic and convenience functions, as well as – driven by increased complexity – a more diverse choice of equipment and variants. Intedis GmbH & Co. KG uses modern software tools to conduct structured system analyses that lead to optimum-cost product solutions: optimized function packaging, efficient power management, and intelligent central electronics.

Intedis provides services to customers from the early development phase to the start of production (SOP) all the way to ongoing series optimization. The company handles complete cooperation management, as well as cross-sectional responsibility.

Fiscal year 2003-2004 saw the successful startup of series production of the new Opel Astra. Intedis was the integrated supplier with overall systems responsibility for body control units and wiring. The model has system-optimized control units and a modified wiring harness.



New for series production: an electronic component for an overhead control unit.

Increased Interest in Evaluating and Optimizing Vehicle Electrical Systems

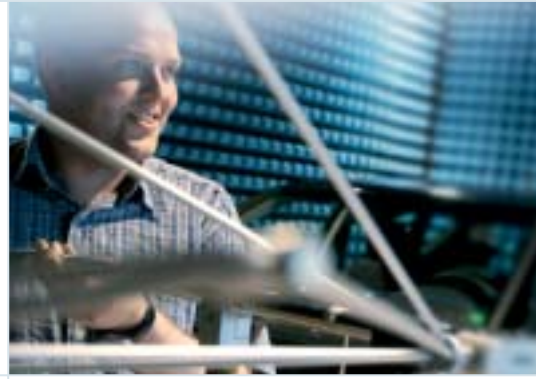
Intedis has also further developed the TOPcad evaluation and optimization tool, which has received great interest from customers. New customers all over the world, including the car manufacturers Ford, General Motors, Porsche, and Volkswagen, have made our services part of their project work. Cooperation in the areas of systems optimization, integration, and evaluation of vehicle electrical systems gives the company good chances of being awarded contracts to supply further series production.

Intedis is currently investing in standard control units, scalable vehicle electrical system architecture, and innovative integrated flat conductor systems that can be used in multiple model ranges and OEMs. Praise for the "best series startup of the Opel Astra ever" and very good feedback from customers when presenting results within the framework of projects confirm this strategy.

Good Products for a Pleasant Atmosphere in the Vehicle

Professional air conditioning systems increase driving comfort and enhance concentration while driving. Our joint venture Behr-Hella Thermocontrol GmbH has long set the standard for innovative air conditioning systems with the influencing parameters of temperature, humidity, and heat radiation. The company offers application and simulation know-how. During the year under review its sales rose by 11 percent to € 200 million, making it the market leader in Germany for electronic climate control in vehicles.

Business during 2003-2004 was characterized by successful series startups of the semi-automatic climate control for the VW PQ35 and the electric auxiliary heater for the BMW 5 Series. In the future Behr-Hella Thermocontrol will invest in even more driving comfort and wellness, greatly benefiting its customers.



Long-Term Supplies and the Remanufacturing of Electronic Control Units

Supplies of electronic components following series production require individual supply scenarios and coordinated parts management. To implement solutions of this type, we created in summer 2003 a special product line with integrated production. The new area shows how much importance we attribute to this segment.

The Challenge of Software

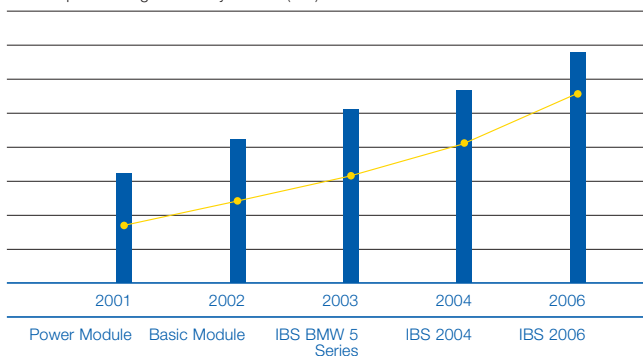
90 percent of all new functions in vehicles are today realized by electronics plus software. This has led to a constant increase in the value share of automotive software. Hella is proactively fulfilling demanding requirements and is continuously investing in software development. We were the first premium member of the AUTOSAR software initiative in January 2004. We are also working on scenarios that will make software available as a product. With effect from the start of 2004, all projects are developed in accordance with Spice Level II.

Outlook

We are currently working on the further development of battery management in vehicles and the expansion of our driver assistance systems. Our motivation is the hope that our technical know-how will make a major contribution in reaching the European Union's objective of cutting the number of traffic deaths in half by 2010. There is also increasing focus on the benefit to end-customers as a parameter for prioritizing development activities. Through further internationalization we are at the same time responding to persistent price pressure.

Energy Management for Safe Vehicle Electrical Systems

Roadmap for Intelligent Battery Sensor (IBS)



Strategy and Market Development

