

AKTIENGESELLSCHAFT

Sustainability Report 2007/2008

WE ARE MOVING INTO THE FUTURE RESPONSIBLY



Report Profile

"WE ARE MOVING – INTO THE FUTURE RESPONSIBLY" – THE MOTTO OF THIS VOLKSWAGEN GROUP SUSTAINABILITY REPORT STANDS FOR A REPORTING APPROACH THAT GOES BEYOND THE PRESENTA-TION OF OUR CURRENT ACTIVITIES IN RESPECT OF SUSTAINABILITY TO ALSO CONSIDER LONG-TERM AND FUTURE-ORIENTED TOPICS AND ISSUES AFFECTING OUR COMPANY AND THE AUTOMOTIVE INDUSTRY AS A WHOLE.

Basically, this Sustainability Report presents an account of the period from October 1, 2005 to July 31, 2007 that sets out openly, reliably and in self-critical fashion what we have accomplished to date, and presents in appropriate and objective terms our economic, ecological and social achievements.

In the interests of continuous improvement, we also square up to outside criticism and take account of the ideas and suggestions that emerge from regular stakeholder surveys. We also take into consideration media analyses, requirement profiles drawn up by rating and ranking organisations and the latest guidelines published by the Global Reporting Initiative (GRI), including the 2004 Automotive Sector Supplement (pilot version 1.0).

The GRI has confirmed that our reporting qualifies for Application Level A+. The indices published at the end of this report and on the Internet document the extent to which we meet the reporting requirements.

As a Group report, the present Sustainability Report covers all companies included in the consolidated accounts. Further information about the basis of consolidation can be found in the Notes to the Financial Statements in the Volkswagen AG Annual Report. Most of our brands publish information on the subject of sustainability in their own reports and on their websites.



Our printed Sustainability Report cannot cover all the Group's activities in the environmental and social fields. More detailed content on many items can be found on the Group Sustainability Portal on the Internet at www.volkswagensustainability.com and is continuously updated. Further information can also be found on our Investor Relations website at www.volkswagen-ir.com and in the Volkswagen Group Annual Report. In the present Sustainability Report, detailed links can be found in the footnotes at the bottom of the respective pages. A full overview of these links can also be found on a link list on the Group Sustainability Website under the heading of Service.

The facts and figures section was checked by auditors from PricewaterhouseCoopers based on data and information from the regular audits conducted at our development sites and production plants in line with ISO 14001 or EMAS, the EU Eco-Management and Audit Scheme.

Unless otherwise indicated, the information in this report relates to the Group as a whole. In these instances, we talk about the "Volkswagen Group" or just "the Group". If we refer simply to "Volkswagen" then we mean the Volkswagen brand. In the interests of readability, we have dispensed with the use of he/she, his/her, etc. This report will be published in English, Japanese, Chinese and German.

Our Group Sustainability Report is published every two years. The next report is due to appear in 2009.

BlueMotion and e-models: powerful eco-players

Can you save fuel and still have fun driving? You can indeed, because the latest generation of environmentally friendly vehicles from the Volkswagen Group are not only particularly energy efficient, they are agile into the bargain. "I was looking for a new compact car and went to several dealers," relates Ute Weitkamp from Lehre in Germany. She finally found what she was looking for at her VW dealership: a Polo BlueMotion. "What impressed me was that fuel consumption is particularly low but the car still has a sporty look about it. And my family loves the car too: it looks good, it's agile and it's economical. Even when I drive it fast, the fuel consumption of this eco-Polo is phenomenally low."



Ute Weitkamp, Polo BlueMotion buyer, Lehre, Germany

"Environmental considerations are coming to play an important part for more and more customers when they buy a car," says Matthias Kort, who heads up Customer Services at the Moll Volkswagen dealership in Biberach, Germany. "Nowadays the level of CO₂ output is something customers regularly want to know before they buy. Our customers are very happy with the Polo BlueMotion and new owners are turning into real eco-drivers. They are really pleased when their fuel consumption drops," he adds. "At the same time this thrifty Polo is highly versatile and comfortable and comes at a very attractive price. In my opinion the BlueMotion models are very good and in tune with the times. Volkswagen would do well to do more advertising for them."

Since it was launched in 2006, the Polo BlueMotion has made a name for itself as the most economical five-seater car in Europe. Healthy demand has already led to a substantial increase in production output at the Pamplona plant in Spain. In the 2006/2007 "Cars and the Environment" rankings published by the German Association for Transport and the Environment (VCD) the Polo BlueMotion figures as the most environmentally friendly vehicle built by a German manufacturer.



Matthias Kort, Head of Customer Services, Moll Volkswagen Dealership, Biberach, Germany

BlueMotion and e-models on the upswing

But these are just the first representatives of a range of particularly efficient vehicles from the Volkswagen Group. At Frankfurt International Motor Show (IAA) in September 2007, six more attractive and popular models will be receiving the BlueMotion badge. The BlueMotion series from Volkswagen and the Audi models with the 'e' badge are all based on the same concept: arriving at a vehicle with optimised fuel efficiency through the rigorous optimisation of existing technologies. The key economy measures include higher gearing, enhanced aerodynamics, tyres with lower rolling resistance, lowered chassis, and weight reduction - achieved in the Audi models, for example, by using aluminium components. Gear-change displays in Audi models and Volkswagen models (apart from the Polo) also promote economic driving habits. Together, these measures reduce the average consumption of the BlueMotion vehicles by around half a litre per 100 kilometres against the comparable standard production models.

"The first thing we ask ourselves is which technical options make sense in terms of efficiency and costs – with the proviso that there should be no compromises when it comes to the pleasure of driving, comfort, user-friendliness and everyday serviceability for our customers," emphasises Hans-Gerd Bode, Head of Communications for the Volkswagen brand. As the BlueMotion vehicles are based on standard production models, the retail prices of these eco-cars can be kept at an attractive level and the cars themselves appeal to a broad-based market. Consequently, they align neatly with customer wishes, as car dealer Matthias Kort confirms: "Customers certainly think about the environment, but they are rarely willing to pay a substantial premium for the appropriate technology."

Developing energy-efficient vehicles is not a knee-jerk

reaction to the current debate on carbon dioxide emissions but a long-standing policy at the Volkswagen Group. "The topics of fuel consumption and the environment are anything but new for Audi," says Sabrina Dinand, Product Marketing, AUDI AG. Audi also played a decisive part in the development of hybrid technology. The first production model with hybrid drive was the Audi duo, which made its debut in 1996. "We have never stopped striving to increase the efficiency of our engines, to the benefit of fuel consumption and range. And for many years now we have been developing economical cars with innovative powertrains. As the pioneers of TDI, FSI and in particular TFSI technology, we have a tradition of combining the pleasure of driving with low fuel consumption."

It its A3 and A4 series, Audi now offers particularly economical models. "In future we will be offering a high-efficiency model in the core A3, A4, A6 and A8 series," explains Sabrina Dinand. "In this we are responding to growing customer interest in high-quality, versatile vehicles that feature outstanding fuel economy."

These economical models are based on fuel-saving direct injection technology. The 1.9-litre TDI engine in the A3, A3 Sportback and A4 (Saloon and Avant) as well as the 2.0-litre TFSI petrol direct injection engine in the A4 and A4 Avant make for dynamic propulsion coupled with high efficiency. The 77 kW (105 HP) A3 models – fitted with diesel particulate filters (DPF) as standard – achieve a fuel consumption of 4.5 litres per 100 kilometres, with CO_2 emissions of 119 grams per kilometre. The A4 TDI saloon averages 5.2 l/100 km and 137 g CO_2 /km. The 125 kW (170 HP) petrol-driven e-models in the A4 series are high performance vehicles with a top speed of 230 km/h, combined with an extensive range, thanks to the lowest fuel consumption figures in the entire petrol-driven A4 model series: 7.1 litres per 100 kilometres (A4 Avant: 7.2 litres).



Sabrina Dinand, Product Marketing AUDI AG, Ingolstadt, Germany

The 59 kW (80 HP) TDI engine in the Polo BlueMotion is an even more economical performer. Driven for maximum fuel-efficiency, it consumes just 3.8 litres of diesel fuel per 100 kilometres and emits just 99 grams of CO₂ per kilometre. The Passat BlueMotion, which was launched in the early summer of 2007, sets the standards in its class. The fuel consumption of its 1.9-litre 77 kW TDI engine with DPF stands at 5.1 litres per 100 kilometres, with CO₂ emissions of 136 grams per kilometre (Estate: 5.2 litres and 137 g CO₂). The fact that, at 4.77 metres, the Passat Estate is one of the largest vehicles in its segment makes these data all the more impressive. Thanks to the enhanced aerodynamics and the higher gearing, the top speed of the Saloon has actually increased by five km/h to 193 km/h. Such low fuel consumption also has a positive impact on vehicle range: on a full tank of fuel the Passat BlueMotion can travel up to 1,350 kilometres. With an average annual mileage of 15,000 kilometres, that means just eleven trips to the filling station in twelve months and fuel costs of around €70 per month.*

In May 2007, over 400 journalists from across Europe were given an opportunity to test the economy of the new eco-Passat for themselves. With average fuel consumption of 4.9 litres/100 km, the representatives of the media actually outperformed the official works rating of 5.1 litres (5.2 litres for the Estate). Some journalists even managed to return fuel consumption of less than 4 litres/100 km!

Potential for even greater savings

Just one example of the fact that sporty driving and environmental protection are not mutually exclusive was provided by the Eco Racer concept car that Volkswagen presented at the Tokyo Motor Show in 2005. This roadster with a top speed of 230 km/h consumed just 3.4 litres/100 km. The secret of this mid-engined sportscar's success was a carbon-fibre body weighing just under 850 kilograms. As a result, its 100 kW turbodiesel engine could power it from 0-100 km/h in just 6.3 seconds.

Through its new high-efficiency models, the Volkswagen Group is demonstrating above all that low fuel consumption and fun at the wheel are not mutually exclusive.

Fuel consumption data:

Audi A3/A3 Sportback 1.9 TDI e: 77 kW (105 HP); fuel consumption combined cycle 4.5 l/100 km: 119 g CO₂/km.

Audi A4 Saloon 1.9 TDI e 5.2 l diesel/100 km: 137 g CO₂/km, Audi A4 Avant 1.9 TDI e 5.3 l diesel/100 km: 139 g CO₂/km.

Audi A4 Saloon 2.0 TFSI: 125 kW (170 PS); fuel consumption combined cycle 7.1 l/100 km: 169 g CO₂/km.

Audi A4 Avant 2.0 TFSI: 125 kW (170 PS); fuel consumption combined cycle 7.2 l/100 km: 171 g CO₂/km.

Passat BlueMotion (Sal./Est.) l/100 km: fuel consumption combined cycle 5.1/5.2: 136/137 g CO_2/km.

Polo BlueMotion l/100 km: fuel consumption combined cycle 3.8: 99 g $CO_2/{\rm km}.$

* Based on prices in Germany in the third week of 2007; data provided by the Association of the German Petroleum Industry.

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Dear Reader,



Sustainable development poses a challenge for us all. In the management of the Volkswagen Group, however, we also see sustainable development as an opportunity to demonstrate the long-term innovative capabilities and competitiveness of our company. The major issues of the future, from climate change to dwindling fossil energy reserves and sustainable mobility, challenge us to come up with new approaches, ever-more-efficient technologies and innovative products. Which is precisely what we do best. We lead the field in terms of fuel-efficient and low-emission engine and transmission technologies. We combine low fuel consumption and dynamic performance, ensuring our customers continue to savour the pleasures of driving, as in the BlueMotion models from Volkswagen or the e-models from Audi. We are working to improve existing hybrid drive technology; we are developing an economical compact car; and we have engaged with several partners to come up with a new generation of biofuels with a significantly improved CO₂ balance-sheet, to safeguard our future mobility.

We are convinced that we need to align our activities closely with the principles of sustainable development. Only then will we be in a position to secure our commercial success in the long term. For us that means creating more and more value with less and less resources; constantly improving the level of our technical expertise and the quality of our vehicles in the interests of our customers; and continuously building on our technology leadership. To our way of thinking, sustainability means dealing responsibly with the concerns of the Group's almost 325,000 employees around the world; it also means committing ourselves to long-term relationships with our dealers, suppliers, investors, neighbours and customers in the best interests of all concerned. And last but not least, sustainable development challenges us to take our responsibility for the environment seriously and play an active part in the positive development of local society at our production plants. That is why we are committed to the United Nations Global Compact and to respecting the associated principles of ethical and responsible corporate management.

For this Volkswagen Group Sustainability Report, we have chosen the motto "We are moving – into the future responsibly". This is designed to express not only the fact that we create innovative forms of mobility, but that, as a Group, we too are moving and changing in order to meet the future requirements of society. That includes ensuring open, reliable and self-critical reporting. Consequently, we consider it our duty to present a transparent and well-balanced picture of our economic, ecological and social activities; in this we take our lead from the reporting guidelines of the Global Reporting Initiative.

On behalf of the Board of Management, I invite you to form your own opinion of the activities of the Volkswagen Group and the challenges we face, as summarised on the pages of this report. We expressly welcome your comments and ideas, and would like to encourage you to engage in a dialogue with us.

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Prof. Dr. rer. nat. Martin Winterkorn, Chairman of the Board of Management of Volkswagen AG

Forewords, Chairman of the Board and Works Council Sustainability as a Value Drive Portrait of the Group

Dear Sir or Madam,



In view of the current debate on the UN Climate Report, global climate change, as well as current and future climate protection, the term "sustainability" - and above all the activities it implies - has taken on a special importance. For several years we have been witnessing a paradigm shift in respect of the topic of sustainability, although this has never been as evident as it is now. Given the tangible impacts of climate change and its social and economic consequences, the subject has in the meantime attained an explosiveness that takes it well beyond the realms of a purely political problem and expert debate.

As a result, in the future, how consistently and credibly a company approaches this topic will be crucial to its competitiveness and long-term survival. Thus, Volkswagen's sustainability strategy will also have a critical impact on safeguarding the future of the Group's production plants and the jobs of its employees.

This is a home truth that no one can now afford to ignore, and we must adapt our thinking and our actions to this paradigm shift.

While the climate is currently at the centre of the sustainability debate, it reflects only part of the overall issue. When we, as the World Works Council, talk about sustainability, this embraces its social, ecological and economic aspects in equal measure.

From this comprehensive perspective, sustainability and thus sustainable development must not only form an integral part of our corporate strategy and corporate culture; they must also provide a point of reference and a framework for all our activities.

As an international player, the Volkswagen Group has a special responsibility to ensure that its activities are sustainable not only in industrial nations but also when accessing new markets - in emerging countries for example. Here, we must set an example from the outset. The appropriate instruments, such as the Social Charter and the Agreement on Sustainability in the Supply Chain, are already in place and must now be consistently applied and optimised.

Sustainable activities are not, however, the responsibility of the Volkswagen Group alone; we all of us – each at our own workplace – share in the responsibility for ensuring that sustainable development becomes a reality, so that our children and grandchildren can look forward to a future worth living on this planet.

Bernd Osterloh Chairman of the General and Group Works Councils

Sustainability – from Cost Driver to Business Case

THE NEED FOR SUSTAINABLE SOCIAL DEVELOPMENT TODAY ENJOYS WORLDWIDE RECOGNITION. HOWEVER, THE WORLD'S POLITICAL COMMUNITIES WILL NOT BE ABLE TO MASTER THIS CHALLENGE ALONE; INCREASINGLY THEY NEED THE PROACTIVE COMMITMENT OF PRIVATE ENTERPRISE. THE BUSINESS SECTOR, AND NOT LEAST THE AUTOMOBILE INDUSTRY AS ONE OF THE ORIGINATORS OF ENVIRONMENTAL PROBLEMS, IS DUTY BOUND TO COME UP WITH SUSTAINABLE SOLUTIONS. INDUSTRY SHOULD NOT ONLY MAKE ITS PRODUCTION OPERATIONS ECO-FRIENDLY BUT ALSO LAY AND UNDERPIN THE COMMERCIAL FOUNDATIONS FOR THE SUSTAINABLE DEVELOPMENT OF SOCIETY. COMPANIES THAT SUCCEED IN MEETING THESE REQUIREMENTS AND PROACTIVELY TRANSFORMING SUSTAINABILITY INTO A BUSINESS CASE, INSTEAD OF CONSIDERING IT EXCLUSIVELY AS A COST AND RISK FACTOR AS IN THE PAST, WILL CREATE AN OPPORTUNITY FOR THEMSELVES TO BRING ABOUT A SUBSTANTIAL INCREASE IN VALUE ADDED. A SUSTAINABLE CORPORATE STRATEGY MEANS GREATER EFFICIENCY IN THE PRODUCTION SECTOR, CLEARS THE WAY TO MORE INNOVATIVE PRODUCTS, AND THUS REPRESENTS A KEY COMPETITIVE EDGE IN MANY MARKETS.

Sustainability offers an opportunity

The Volkswagen Group has been quick to embrace this point of view. We have created pioneering working conditions for our employees; kept the environmental impacts of our business processes as low as possible; and are today working intensively on innovative and environmentally compatible products. We view the challenges posed by sustainability as an opportunity. They spur us on to boost our ecological and social performance and the marketability of our products. Through proactive planning and activities in conjunction with our stakeholders we can help shift the market framework in the direction of sustainability. For there can be no doubt that by aligning our strategic direction with the demands of sustainable development we can add value for the Volkswagen Group, a process that calls for motivated and qualified employees. Through the responsible use of our resources, we not only protect the environment but also cut costs. The Volkswagen Group's reputation among the general public also depends on the responsible approach demonstrated by our suppliers. But it is above all by offering attractive, innovative, economical vehicles that offer value for money that we can in future secure that vital competitive edge.

As Europe's largest automobile group with a broad portfolio of vehicles in all classes, by pursuing this corporate policy we will be able to build on our lead as a sustainable automaker. The logical conclusion for us is that, in the long term, sustainability is not a cost driver but a value driver for the Volkswagen Group, pointing the way to more efficient production processes, a motivated workforce and futureproof products.

Many roads lead to sustainability

True to our traditions and corporate culture and in keeping with our business environment, we are charting our own unique course. The sustainable development of the Volkswagen Group is an ongoing process, marked by openness for integration; a striving for innovation; communication and lifelong learning. In our strategy, we have geared our business policy to generating sustainable success and earnings; have established harmonised processes across the Group; and made sustainability one of our seven core Corporate Values. One focal point of our sustainable development and CSR policy is the responsible treatment of our employees. With the prevailing trend towards the increasing use of technology, their qualifications and personal commitment are increasingly becoming a source of competitive advantage. Through attractive working conditions, education and training opportunities, as well as fair compensation and a safe and healthy workplace environment (see page 50ff.) we prepare the ground accordingly. As a result, we are able to recruit and retain the best talents worldwide and ensure the long-term employability and motivation of our workforce.

The Volkswagen Group is committed to integrated environmental protection. This extends over the entire product life cycle, including the production process (see page 46ff.). We train our employees, reward personal commitment to the environment and continuously monitor resource consumption at our production plants. Cutting energy consumption and greenhouse gas emissions are primary goals of our Powertrain and Fuel Strategy (see page 40ff.). In this we have adopted a temporally-balanced strategic approach – a bridge strategy that brings together compatible solutions for the present, the short-term and the long-term future. In terms of fuels, we are pursuing the diversification of energy sources Forewords, Chairman of the Board and Works Council Sustainability as a Value Driver Portrait of the Group



The 1-litre car – innovative lightweight design

or feedstocks, and aiming to gradually replace fossil feedstocks with fuels that present low CO_2 emissions and, ultimately, fuels that are CO_2 neutral. In terms of powertrains we have targeted efficiency leadership in each of the respective vehicle classes. In the short and medium term, we will be focusing on increases in efficiency that help us to create economical, agile and at the same time low-priced vehicles for a broad-based market. In 2006, this led to initiatives such as the BlueMotion models from the Volkswagen brand, while 2007 brought the introduction of the additional 'e' badge at Audi, designating the models in each series that feature optimised fuel economy (see Special Report: BlueMotion/emodels).

The Volkswagen Group has often been an early mover in bringing sustainable innovations to market (see page 40ff.). Back in 1989 our Audi subsidiary began production of a hybrid drive vehicle in the shape of the first-generation Audi duo. 1998 brought the Lupo 3L, the world's first "3-litre" model (100 kilometres on three litres of fuel), followed in 2001 by the Audi A2 1.2 TDI, the first four-door "3-litre" model. In 2002, we then presented the initial prototype of a "1-litre" car. In view of the substantial cost and effort involved, it is regrettable that these innovative models - produced in response to widespread demand - met with inadequate acceptance both among consumers and from the state. Nevertheless, we remain convinced that these pioneering projects not only benefited our reputation as an innovation leader but that, in the long term, their technological successors will bring us success in the marketplace. That said, in the future we will be careful to integrate environmental protection and concrete customer benefits even more effectively - to present an even more convincing business case.

Portrait of the Group

The Volkswagen Group consists of two divisions: Automotive and Financial Services. The activities of the Automotive Division comprise the development of vehicles and engines, as well as the production and sale of passenger cars, commercial vehicles, trucks and buses. The Financial Services Division's portfolio of services includes the Group's dealer and customer financing, leasing, banking and insurance activities and fleet management business. The Volkswagen Group is the largest automobile manufacturer in Europe and one of the industry's world leaders. Around the world, almost 325,000 employees produce over 24,500 vehicles per working day or offer vehicle-related services. Together, our eight automobile brands operate 44 vehicle and component production plants in twelve European countries, as well as in six countries in the Americas, Asia and Africa. Our sales operations cover more than 150 countries across the globe.



In the vehicles we develop and manufacture, we apply the highest standards of quality and safety. Another key product characteristic is environmental compatibility. At the same time, we aim to meet additional customer requirements and wishes in order to hold our own in the marketplace and consolidate and build on our position.

The Volkswagen Group emerged from a company by the

name of "Gesellschaft zur Vorbereitung des Deutschen Volkswagens mbH" (Company for the Preparation of the German People's Car Ltd.) which was founded in 1937. In the post-war years of the early 1950s, commercial success arrived with the volume production of the VW Beetle. In 1952 we set up the first overseas sales companies. In 1965, the Volkswagen Group acquired a majority holding in the long-established automaker Auto Union GmbH, today known as AUDI AG and based in Ingolstadt, Germany. Since 1974, Volkswagen has been building Germany's best-selling car in the shape of the Golf. In March 2007, the 25 millionth Golf rolled off the production lines in Wolfsburg.

In 1986 the Group acquired SEAT S.A. of Spain and in 1990 the Czech car manufacturer Škoda. With our long-standing presence in the growth markets of Brazil, South Africa and China, and the establishment of production capacities in India and Russia, in overall terms we are strategically well placed to face the future. As early as 1984, a joint venture initiated the Group's drive to access the Chinese market (see Special Report: The Volkswagen Group in China).¹⁾

Brands and companies

Since the restructuring of the Volkswagen Group in January 2007, the Group's brands – Volkswagen Passenger Cars, Audi, Bentley, Bugatti, Lamborghini, SEAT, Škoda, and Volkswagen Commercial Vehicles – each deal autonomously with their own vehicle business. This includes all fields of activity, from development and production to marketing. As a result, in future the brands will be even better able to meet the needs of their respective target groups.

Around the world, the Volkswagen Group offers more than 100 different models of cars and commercial vehicles, from the popular Polo to the niche model Bugatti Veyron, from the Caddy to the heavy trucks of the Constellation series in Brazil. The model that led the 2006 production statistics across the Group was the Volkswagen brand's Passat/Santana of which 701,074 units were built, ahead of the Golf which reached 693,376 units. Known until the end of 2006 as the Volkswagen brand group, the combined Volkswagen, Škoda,

WORLDWIDE DELIVERIES OF THE GROUP'S MOST SUCCESSFUL MODELS IN 2006 VEHICLES IN THOUSANDS



→ The Group

Forewords, Chairman of the Board and Works Council Sustainability as a Value Driver Portrait of the Group

Bentley and Bugatti brands increased their unit sales by 10.8% in 2006 to a total of 3.9 million vehicles. The Audi brand group, comprising the Audi, SEAT and Lamborghini brands, reported a 7.5% rise in unit sales to 1.3 million vehicles, while in the commercial vehicle sector sales rose 12.7% to 445,000 units. In all, in the course of 2006, the Volkswagen Group sold 5.7 million vehicles.

In addition, our participation in MAN and Scania underline our strategic interest in the commercial vehicle sector. In the first quarter of 2007 we increased our holding in MAN to 29.9% of the voting rights (28.7% of the subscribed capital). Also in the first quarter of 2007 we raised our stake in Scania to 36.4% of the voting rights (20% of the subscribed capital).

As part of its strategy of focusing on its core business, on March 31, 2006, Volkswagen AG sold its wholly-owned subsidiary gedas Aktiengesellschaft to T-Systems AG, a subsidiary of Deutsche Telekom AG, and its 50% stake in Volkswagen Bordnetze GmbH to the Japanese Sumitomo Group. On May 31, 2006, we sold Europcar International S.A.S.U. to the Eurazeo Group.

Coordination of the Group's worldwide activities in the financial services sector is the task of Volkswagen Financial Services AG. In 2006 the company founded Volkswagen Reinsurance AG as a wholly-owned subsidiary. In collaboration with its long-standing partner, Allianz Versicherungs AG, this company can offer attractive car insurance products and rates via Volkswagen Versicherungsdienst GmbH to the customers of the Group's brands. Also in 2006, Volkswagen Bank GmbH launched a new product campaign based on mobility packages that combine product offerings with leasing or financing, insurance and vehicle servicing. With its customised range of customer services above and beyond vehicle sales, the Volkswagen Group is also Europe's largest automotive financial services provider. In 2006, the Financial Services business line generated a further 6.7% year-on-year increase in sales revenue, which totalled \in 8.9 billion.²⁾

Shareholder structure

On May 31, 2007, the subscribed capital of Volkswagen AG comprised 287,521,337 ordinary shares and 105,238,280 preferred shares. According to a letter from Dr. Ing. h.c. F. Porsche AG dated March 28, 2007, its share of the voting rights in Volkswagen AG on that date was 30.9%. At the end of May 2007, the State of Lower Saxony held 20.4% of the ordinary shares. The remaining shares are owned by institutional investors and private shareholders in Germany and abroad.

Distribution of value added

In 2006, the Volkswagen Group posted a 10.6% increase in profit before tax from continuing operations which rose to € 1.8 billion. The restructuring measures carried out in the Automotive Division had a material adverse effect on our profit for 2006. However, they are instrumental in further improving our cost structures and therefore in securing the competitiveness of the Group.

The financial benefits that we generate for the various stakeholders are illustrated in terms of net value added. In total, in 2006 the Volkswagen Group generated value added in the amount of \in 23.6 billion from sales revenue and other income, minus the cost of materials, depreciation, and other upfront expenditures.

NET VALUE ADDED 2006 IN € MILLIONS/IN PERCENT





Other income 6,849

Compared to the previous year, this represents an increase of 20.4%. Value added per employee worked out at \in 78,600, 26.8% more than in 2005. Of the total value added, the majority (\in 17.4 billion or 73.7%) accrued to our employees in the form of wages, salaries and social benefits. Our creditors received \in 3 billion or 12.8% by way of interest, while the state collected \in 440 million in taxes and duties, which equates to 1.9% of the total value added. Net value added therefore amounted to \in 2.8 billion. Of this amount, \in 497 million, or \in 1.25 per ordinary share and \in 1.31 per preferred share, was paid to the Volkswagen Group's shareholders as a dividend. Finally, the sum of \in 2,3 billion was allocated to the company's reserves.³⁰

SALES REVENUE BY REGION 2006 IN PERCENT OF A TOTAL OF € 104,875 MILLION



VOLKSWAGEN GROUP PLANTS⁴⁾

| Plant | EMAS | ISO 14001 | since |
|--|--------------------------------|----------------|-------|
| VOLKSWAGEN EUROPE | | - | |
| Braunschweig (Germany) | • | | 1996 |
| Emden (Germany) | • | | 1995 |
| Kassel (Germany) | • | | 1998 |
| Salzgitter (Germany) | • | | 1996 |
| Wolfsburg (Germany) | • | | 1997 |
| Zwickau/Mosel (Germany) | • | | 1996 |
| Chemnitz (Germany) | • | | 1999 |
| Dresden (Germany) | in prepara | tion | |
| Polkowice (Poland) | | ٠ | 2000 |
| Kaluga (Russia) • under construction | | | |
| Martin (Slovakia) | | ٠ | 2001 |
| Bratislava (Slovakia) | | ٠ | 2003 |
| Pamplona (Spain) | ٠ | ٠ | 1997 |
| Palmela (Portugal) | | ٠ | 1998 |
| VOLKSWAGEN SOUTH AND | CENTRAL AMERIC | A | |
| Puebla (Mexico) | | ٠ | 2000 |
| São Carlos (Brazil) | | ٠ | 1997 |
| Taubaté (Brazil) | | ۲ | 2001 |
| Anchieta (Brazil) | | ٠ | 2005 |
| Curitiba (Brazil) | | ٠ | 2005 |
| Pacheco (Argentina) | | ۲ | 2005 |
| Córdoba (Argentina) | | ٠ | 2000 |
| VOLKSWAGEN ASIA | | | |
| Pune (India) o | under constructior | 1 | |
| Volkswagen – FAW E Dalian (China) • in preparation | | | |
| SVW PT Loutang (China) | 0 | in preparation | |
| SVW Anting (China) | | • | 1997 |
| Volkswagen TS Jiading (China) | | | 2005 |
| FAW – Volkswagen Changchun (China) | | | 2002 |
| Volkswagen – FAW PL Changchun (China) | | | |

| Plant | EMAS | ISO 14001 | since | | |
|------------------------------|-------|------------------------------------|-------|--|--|
| VOLKSWAGEN AFRICA | | | | | |
| Uitenhage (South Africa) | | ٠ | 2000 | | |
| | | | | | |
| Hannover (Germany) | • | • | 2000 | | |
| Poznań (Poland) | | • | 2004 | | |
| Resende (Brazil) | | • | 2001 | | |
| AUTO 5000 | | | | | |
| Auto 5000 (Germany) | • | | 2003 | | |
| ŠKODA | | | | | |
| Kvasiny (Czech Republic) | | ٠ | 2001 | | |
| Mlada Boleslav (Czech Repu | blic) | • | 2001 | | |
| Aurangabad (India) | | in preparation | | | |
| Vrchlabí (Czech Republic) | | • | 2001 | | |
| BUGATTI | | | | | |
| Molsheim (France) | | in preparation | | | |
| BENTLEY | | | | | |
| Crewe (England) | | • | 1999 | | |
| AUDI | | | | | |
| Brussels (Belgium) | • | | 2002 | | |
| Ingolstadt (Germany) | • | • | 1997 | | |
| Neckarsulm (Germany) | • | | 1995 | | |
| Györ (Hungary) | • | • | 1999 | | |
| SEAT | | | | | |
| Martorell (Spain) | | • | 2003 | | |
| Prat (Spain) | | • | 2001 | | |
| LAMBORGHINI | | | | | |
| Sant'Agata Bolognese (Italy) | | in preparation | | | |

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-> Sustainability Management -> Management Systemes



Forewords, Chairman of the Board and Works Council Sustainability as a Value Driver Portrait of the Group



















Challenges

CHALLENGES

Climate and Energy Special Report: Powertrain and Fuels Strategy Globalisation and Local Responsibility Demographic Change and Employment Safety and Health Special Report: Volkswagen in China

IN LIGHT OF CLIMATE CHANGE, ITS IMPACTS, AND ADVANCING GLOBALISATION, ANSWERS ARE URGENTLY REQUIRED TO THE MANY QUESTIONS STILL REMAINING ABOUT SUSTAINABLE SOCIAL DEVELOPMENT. INDUSTRY - AND NOT LEAST THE AUTOMOTIVE INDUSTRY - MUST HELP TO FIND THE **NECESSARY SOLUTIONS.**

The Volkswagen Group sees these challenges as an important opportunity. It is addressing them systematically and integrating them into its strategic processes (see page 27ff.). Though globalisation puts considerable pressure on companies in the industrialised countries to change, at the same time it also offers many new possibilities. With increasing prosperity in the developing world, new markets are opening up for products that will offer people in these countries a higher standard of living. One such market is personal mobility. This key area represents an important source of potential demand and at the same time offers a way of safeguarding profits and jobs at our company in the long term. However, our presence in the expanding new markets, which inevitably includes operating our own local production plants, also puts us under an obligation to conserve natural resources in these countries, to minimise environmental impacts and to be a responsible corporate citizen.

The growth in motorisation in the emerging and developing

countries poses environmental, safety and health risks that we must address by developing new technologies and suitable road safety strategies. The Volkswagen Group faces major challenges in the industrialised countries too, where the necessary restructuring to increase efficiency and competitiveness is being carried out in a socially responsible way. At the same time, new concepts are called for to attract the best expert employees.

We will be doing more to maintain the employability of our workforce, to promote preventive healthcare, to provide age- and ability-appropriate workplaces and to ensure that more effective use is made of the knowledge and experience of older employees.

In many areas, important progress was made during the period under review (see page 39ff.), while in others we still need to do more. We are guided in our efforts by ongoing analysis of our economic, ecological and social performance (see chart below: Challenges for the Volkswagen Group).



CHALLENGES FOR THE VOLKSWAGEN GROUP

Climate and Energy

Summarising the findings of current research, the report of the UN Intergovernmental Panel on Climate Change (IPCC) presented in early 2007 comes to the clear conclusion that the world's climate has warmed by an average of 0.7° C over the last hundred years, and that a leading factor in this has been anthropogenic emissions of greenhouse gases, particularly CO₂ from the combustion of fossil fuels. Without wideranging measures to reduce greenhouse gas emissions, the IPCC scenarios predict ever-accelerating warming, which by the end of the century would have dramatic consequences, such as longer heatwaves and more frequent flooding. In his 2006 report, the former Chief Economist of the World Bank, Nicolas Stern, put the costs of unchecked climate change at five to over 20% of world gross domestic product (GDP).

To keep global warming within the "safe" limit of approximately two degrees, it will be necessary, according to the reports, to undertake a drastic cut of between 50 and 85% in emissions between now and 2050. According to the IPCC this will require investment of up to 5.5% of world GDP. But as the researchers also point out, these enormous sums will still be significantly lower than the cost of allowing warming to proceed unchecked. The investments would need to be accompanied by an adequate regulatory framework and by an emphasis on finding the most cost-effective solutions for reducing emissions. Closely related to the challenge of climate change, a further concern is that of security of energy supplies. Currently, energy supplies are largely based on the combustion of fossil fuels such as oil, gas and coal. Oil supplies in particular are finite and geographically concentrated, which increases the risk of price fluctuations.

Measures to reduce energy consumption

Some 9% of global greenhouse gas emissions are caused by road transport. Of this figure, approximately half is contributed by cars and approximately half by other forms of transport. However, making vehicles more efficient will not in itself be sufficient to prevent a further increase in transport-related emissions. The reasons for this are partly the increase in freight traffic resulting from economic globalisation and partly the current high level of demand for personal mobility, particularly in the developing countries.

This makes it all the more important to minimise energy consumption, and by extension CO_2 emissions, over the entire vehicle life cycle.

The main energy inputs required in automotive production are power and heat. A portion of these needs is met by our own power stations, some of which participate in the European emissions trading system. Improving productionrelated energy consumption provides a way of reducing carbon dioxide emissions, reducing operating costs and reducing our exposure to fluctuating prices for energy and CO₂ emissions rights. However, by far the largest share of energy consumption during the life cycle of the vehicle, and thus the largest share of CO₂ emissions, is accounted for by the vehicle's service life. Compared with production, this stage involves a relatively large number of stakeholders, including the vehicle manufacturers themselves, the oil industry, the public policy-makers and, in particular, the drivers. To tie all these stakeholders into a set of measures for reducing CO₂ emissions during the vehicle's service life, such measures must adopt an integrated approach that takes into account



GLOBAL GREENHOUSE GAS EMISSIONS 2004 (TOTAL 50 BILLION METRIC TONS CO2 EQ.)

Source: Ecofys, derived from IPCC, UNFCCC, IEA and WBCSD, 2007

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the interests of all parties. The task of the vehicle manufacturers will be to develop and bring to market state-of-the-art, efficient technologies which strike the right balance between environmental protection, safety, comfort, functionality and costs. This is the only way of creating energy-efficient, environmentally-friendly products which are also capable of achieving market acceptance. The last stage in the chain meanwhile, vehicle disposal, accounts for the smallest fraction of total life cycle energy needs. Here, efficient recycling solutions must be implemented to conserve resources and thereby reduce energy consumption and CO₂ emissions.

Global regulatory environment

There are no universal global solutions when it comes to tackling climate change. What is most appropriate in mature markets like Europe will not be most appropriate in developing countries. In the EU, the main emphasis is on vehicle and fuel taxes, which in some cases are CO₂-based. Rising fuel costs due to increasing scarcity of oil could reinforce this trend. In the emerging economies meanwhile, the main focus of attention is on initial motorisation, road building and the availability of acceptable-quality fuel.

Increasingly, manufacturers are also faced with different regulations on fuel consumption or CO_2 emissions in different countries – for example the American sales-weighted corporate average fuel economy legislation (CAFE) or the Japanese fuel consumption regulations by vehicle weight category ("top runner" approach). The EU too is planning new legislation – to reduce average new-vehicle CO_2 emissions to 120 g CO_2 /km.

The public policy-makers must ensure that the regulatory environment allows innovative vehicle technologies to be brought to market in an efficient manner. Only an integrated approach involving all stakeholders – public policy-makers, the oil industry, car makers and drivers – will allow CO_2 emissions to be reduced as cost-effectively as possible. The targets set for the automotive industry must encourage vehicle manufacturers to compete in developing the most innovative and efficient technologies without restricting manufacturer and product diversity. As a high-tech group and leading innovator, we embrace this competition and see the challenge of climate change above all as an opportunity to offer environment-friendly powertrains and ensure their adoption, not least in high-volume market segments (see page 40ff.).

Interview with Dr. Wolfgang Steiger (Director of Group Research Powertrain)

Powertrain and Fuel Strategy



Dr. Steiger, we hear a lot about the need to create a sustainable mobile society. How would that actually be achievable?

We can divide this up into different technology horizons and timeframes. We have to ask what will come today and what will only be achievable tomorrow or in the longer-term future? The first task, which we are addressing today, is to improve internal combustion engine technology by exploiting the development potential it still holds. There will be no revolution that transforms the market overnight. Rather, the advent of new technologies will be a gradual, evolutionary process. In general terms, we expect to see increasing electrification of the powertrain, as a way of extending the capabilities of the internal combustion engine. And of course, sustainable mobility also extends to aspects such as vehicle safety, and sensible and intelligent traffic management.

How important are the Volkswagen BlueMotion models and the Audi e-models?

We must achieve fleet-wide progress, rather than isolated improvements on fuel consumption and emissions, and we're currently hard at work on this. The BlueMotion series is the logical consequence of our experience with the "3-litre" Lupo. With that model we were trying to break records – and we then discovered that customers weren't willing to accept the higher prices this entailed. So now we are combining greater technical efficiency with cost efficiency by taking low-cost fuel-saving solutions and incorporating them into existing models. That leads to much bigger benefits in terms of overall fleet consumption and emissions.

What is your long-term global vision of sustainable mobility?

Globally, we must tackle three main objectives: firstly, we must reduce pollutant emissions; secondly, we must find carbon-neutral mobility solutions and thirdly, we must achieve significant improvements in efficiency. We expect to see two different scenarios: on the one hand, in megacities and large urban centres, there will be a demand for predominantly short-distance mobility with maximum daily distances of 200 kilometres. Here we anticipate a significant increase in the use of electric drive. In the long term we expect to meet the needs of almost 80 percent of potential customers in this way. Due to the shorter distances, this type of operation will account for approximately half of total energy consumption, with predominantly long-distance operation accounting for the other half. Here we see no alternative to internal combustion engines, and that is likely to remain the case for the next twenty, thirty or forty years.

You mentioned electric drive. What part do you expect hybrid vehicles to play?

Starting from a relatively modest level, a steadily increasing proportion of motive power will in future be supplied electrically. Sooner or later, a large proportion of engines will be equipped with electric starter/generator systems. Such systems allow the power supplied by the internal combustion engine to be systematically supplemented, thereby improving emissions and fuel consumption.

The next step, in the medium term, will be "genuine" hybridisation. Hybridisation will happen fastest where it makes most sense. The pros and cons must be weighed up carefully: hybrid drive makes sense for short-distance operation but not for long distances, where the negative factors like weight and costs have more of an impact, while the positive effect from better energy management in the powertrain is lost. So hybrids cannot be regarded as a final solution, but as one step on the way to an even higher level of electrification. A point will eventually be reached when the electrical component of the full-hybrid powertrain becomes the dominant partner and the internal combustion engine is relegated to the role of "assistant". Since the pace of electrification will

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depend very much on the pace of progress in battery technology, one of our research priorities is to press ahead with developing battery technology and to find out how far we can go with this approach to electrification.

When, realistically, do you expect these electric vehicles to be ready?

Our researchers are working to find a new approach to battery technology in the course of the next two years. This involves global screening of all the available technologies, consulting hundreds of specialists and continuous scouting of all possible approaches. When we do find a suitable approach, obviously the new technology then has to be industrialised, so we're talking of easily ten years.

What place will alternative fuels have in this scenario?

As I already indicated, there will be two different paths in powertrain development. The first will be closely focused on and led by battery technology. The second will involve new fuels and, as part of that, optimised combustion process design. The fuel and the engine design need to be closely integrated. That's why we believe we will definitely see a second generation of alternative fuels and biofuels. In the medium or long term these fuels will then replace the first generation.

Your competitors expect biofuels to have a market share of only ten to 20 percent by 2020. What's your view?

Direct estimates indicate a potential of between 20 and 25 percent. This is backed up by a number of studies we are jointly carrying out with the Agriculture Ministries of Brandenburg, Lower Saxony and Hesse, and also by a forecast of the overall European potential. It is also important here to liaise with the public policy-makers, who need to provide a regulatory environment that will ensure production facilities for biofuels remain cost-effective to operate over the long term. We also see huge opportunities in energy crop development. Looking at everything that's going on at the moment in crop development, we believe the potential is set to increase significantly.

Many people dream of a CO₂-free hydrogen-based society. When will we see the first hydrogen-powered production car from the Volkswagen Group?

It took us approximately six years of basic research on fuel cell membranes before we reached a breakthrough, with a high-temperature PEM fuel cell based on a concept significantly better than that of any of our competitors. We also carried out successful performance verifications, something which nobody else has done so far. For the rest, things will now proceed in short order: we will be presenting 80-kilowatt systems, fitting them in vehicles and carrying out demonstration projects.

That said, the first genuine hydrogen-powered fuel cell vehicle, when it arrives some time around 2020, will be a battery vehicle with range extender. The battery will be recharged by an on-board fuel cell.

In overall energy efficiency terms, fuel cells will be competing with battery technology. If the hydrogen is produced regeneratively with no CO_2 emissions, the electric vehicle with fuel cell would have clear advantages. Things could still go either way. A lot will depend on the efficiency of the overall fuel cell system, which is still in need of improvement.

What do you expect from the policy-makers as far as sustainable mobility is concerned? How can they support the process?

To create genuinely sustainable mobility systems, all stakeholders have to be brought on-board – the oil companies, the agriculture sector (for the biofuels) and the public policymakers (to provide the regulatory framework for these new mobility systems). Then there has to be discussion, cooperation and agreement on a goal. A lot has been achieved in this respect over the last two or three years and there is a lot more willingness to cooperate now.

There are basically two things we would ask of the policymakers – first they should keep out of the debate on the technology. They should avoid giving preference to one particular technology and should avoid interfering in the healthy competition between different options. At the same time customers must be told that CO_2 is a problem and we must do everything we can to reduce it. Secondly, the policy-makers have to provide the right regulatory framework, for example with CO_2 -based fuel tax and a CO_2 -based vehicle tax. In other words, taxation would be based on efficiency categories, but there must be no political meddling in the technology itself. My conviction is that the politicians should let competition and the evolution of the different technologies follow their natural course.

Dr. Steiger, thank you for talking to us.⁵⁾

Dr. Wolfgang Steiger, 52, has been Director of Group Research Powertrain for Volkswagen AG for the past ten years. As a visiting lecturer at the Coburg University of Applied Sciences, he is also involved in the academic side of the debate. At the same time he takes a passionate interest in discussing the issues with school students.

Read more about "Powertrain and Fuel Strategy" at: www.volkswagen-sustainability.com → Environment www.volkswagen-sustainability.com → Challenges →Sustainability as an Opportunity → Powertrain Strategy as an Opportunity

Globalisation and Local Responsibility

Rapidly advancing globalisation brings big challenges for companies in the industrialised world. To remain internationally competitive, companies must access new markets and must continuously improve productivity at all their sites. The European automotive industry faces fierce competition from the Asian and US manufacturers, on top of which the European vehicle markets are close to saturation. Most future growth will be in emerging markets, in particular the BRIC countries - Brazil, Russia, India and China. A 2003 study by the Goldman Sachs investment bank predicts that, in the long term, the economic output of these four countries will overtake that of the former G6 states. India, for example, is currently the fastest-growing automotive market in the world. To access these markets, companies must produce vehicles that are specifically adapted to local requirements, and they must do so at their own local production plants and at local costs. At the same time, the public is paying close attention to the conditions under which international companies operate in the emerging and developing markets. Generally speaking, environmental and social standards - and costs are substantially lower in these countries than in the industrialised countries. For the Volkswagen Group therefore, it has always been clear that when globalising our business operations, we must apply social and environmental minimum standards throughout the Group.

Globalisation

The Volkswagen Group has been an international company for more than 50 years – that is to say since long before the current globalisation debate began. We opened our first branch in South America in 1953. Today, that location and others that followed in South America account for 12% of our total world production, with Asia accounting for a further 12%. In the fast-growing Chinese market, for example, our total output in 2006 was more than 700,000 vehicles.

To adequately serve the markets of the future, we aim to expand our presence in Russia and India by engaging in local production activities in both these important growth markets. To this end, we will be building new Volkswagen production plants in the city of Kaluga in Russia and also in India, near to the city of Pune.

As we internationalise the Group, our principle is to apply the Volkswagen Group Values at all our plants worldwide. A common set of environmental, health and safety principles has therefore been drawn up for the whole Group. The Volkswagen Social Charter, which is based on the International Labour Organization (ILO) standards, was jointly agreed with the World Works Council. Implementation at our plants began in 2002.

Increasingly, international companies are also expected to accept co-responsibility for their entire supply chain. In 2006, the Volkswagen Group implemented a partnership model which commits our global suppliers to enforcing certain minimum ecological and social standards. The aim is to help ensure sustainable development in all our global operations while at the same time safeguarding our innovative capabilities and competitiveness (see page 36f.).



DEVELOPMENT OF THE BRIC ECONOMIES (FORECAST THROUGH 2050)

Year when GDP of the BRIC countries will overtake GDP of the former G6 (France, Germany, Italy, Japan, United Kingdom, USA) Source: Goldman Sachs Global Research Centre (2003): Dreaming With BRICs: The Path to 2050, Global Economics Paper No. 99

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Future development of our sites

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As a company whose roots are traditionally in the European market - and which still builds almost 70% of its products at its European plants - we feel a particular commitment towards these plants. Furthermore, these plants play a key role in sustaining our technology leadership and thus also our long-term competitiveness. In recent years however, the German and European markets have faced particularly heavy competitive and cost pressure, which has been reinforced by the discount tactics of our competitors. Rising to this challenge, in 2006 we launched a wide-ranging restructuring programme at Volkswagen. The Board of Management and the General Works Council signed a works agreement known as "the Volkswagen Way" - which aims to implement an extensive organisational transformation in which corporate processes will be improved, productivity increased and synergies exploited. One landmark is the introduction of a new standardised production system for the Volkswagen brand's German sites. A further important factor is the return to a five-day working week without wage compensation and the introduction of innovative working time models, while a new profit-sharing system for the workforce provides direct performance incentives. By December 31, 2006, 5,937 employees had signed a termination agreement. A further 2,013 employees have left the company on entering the passive phase of their phased early retirement agreements.

Significant productivity improvements are required at our sites outside Germany too. This is why our Group company Audi is currently undertaking an investment programme at its Brussels site and will be building new Audi models there in future. This is coupled with an increase in the working week to 38 hours. A restructuring programme launched at Shanghai-Volkswagen in autumn 2005, at SEAT (2006 - 2009) and at our plants in Brazil (2006), has allowed us to achieve competitive labour costs, step up plant capacity utilisation and safeguard jobs, while our ForMotionplus programme is once again putting all the Group's products and processes under the microscope, in a bid to further improve profitability. To this end, each of our brands and companies has defined its own programmes and derived concrete measures.⁶⁹

Demographic Change and Employment

Europe is facing radical demographic change: life expectancy is increasing and at the same time the number of children being born is steadily falling. Viewed in the long term, the population is decreasing overall while the proportion of older people is growing. Germany is at the forefront of this trend, with just 1,400 children born on average for every 1,000 women. According to forecasts from econsense, the number of over-80s in Germany is set to nearly triple to 10 million by the year 2050, while the number of people of working age, i.e. between 20 and 64, could fall by as much as 29%, depending on immigration levels.

For businesses this change has significant consequences as the average age of the workforce is increasing. At the same time it is becoming more difficult to find well-qualified younger staff. As the number of university graduates declines, companies will be competing ever more fiercely to attract the best talents in the labour market – especially in high-tech sectors like the automotive industry. The competition is all the fiercer because well-educated, committed employees will play an increasingly crucial role in maintaining competitiveness at a time when structures and processes are becoming ever more complex and customer requirements are constantly increasing. Companies face three challenges: first, recruiting new talents and retaining their loyalty; second, modifying the age structure of the workforce through their recruitment policies; and third, developing the capabilities of their employees over the long term in order to remain innovative and productive with an aging workforce.

Against this background of demographic change, the Volkswagen Group is developing more targeted strategies in order to optimise the capabilities of its employees, implementing systematic and structured personnel development initiatives to help our employees remain physically fit, motivated and competent over the long term. Our personnel strategy is based on a holistic approach to tackling demographic change. In implementing this strategy we can draw on many initiatives which have already been deployed within the Group. The kind of strategies we need today to tackle the challenges of demographic change already have a long tradition within the Volkswagen Group.



PROPORTION OF TOTAL POPULATION AGED 65+ IN SELECTED REGIONS OF THE GLOBE (FORECAST TO 2050 IN PERCENT)

In % of total population.

Source: United Nations, Population Division - Department of Social and Economic Affairs, 2006

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Securing talents

Creating attractive working conditions

In the long term, it is the most attractive employers who will win the competition for the best talents in the labour market. Key factors in promoting individual well-being and maintaining motivation over the long term include, for example, a corporate culture that recognises and encourages individual achievements; attractive career opportunities and performance-related compensation; appropriate ongoing training schemes; and a systematic approach to healthcare management. Flexible working hours are another important factor, adapted to employees' individual needs and enabling them to achieve a good work-life balance.⁷⁾ The Volkswagen Group leads the field in Germany in pioneering flexible and innovative working time models and fair personnel policies. Our healthcare programmes are wide-ranging and exemplary, placing particular emphasis on identifying risk factors and health problems at an early stage. Our employees can choose from a diverse range of training options to achieve further qualifications and can access group expertise through targeted knowledge management programmes.

Training and recruiting

Demographic change is making it vital for companies to offer as many high-quality apprenticeships as possible. In order to also attract future graduate-level employees, companies need to identify upcoming talents at universities and integrate them within their corporate structures at an early stage (see page 50f.).

Developing new resources

In the future, in order to overcome the lack of qualified specialist personnel companies will increasingly need to look beyond their traditional recruitment measures and develop new strategies in order to access the potential of all available sources of labour. In Germany, for example, people from migrant groups and women are much less successfully integrated in the labour market than in comparable countries. As far back as the 1980s, the Volkswagen Group was one of the first companies to promote equality between men and women in the workplace. Nonetheless women are still not as well represented in our specialist and leadership positions as we would wish. Because of this we have been supporting the development of leadership experience and networking among skilled women across the different Group sites through a mentoring programme for women, which has been running for some years. Now we will be introducing a similar programme aiming to increase the proportion of women supervisors at the company. The aim of these measures is to attain a marked and sustainable increase the proportion of women in specialist and leadership roles.⁸⁾

Lifelong learning

The current rapid pace of technological and social change both in wider society and in the corporate world requires all employees to embrace new ways of thinking and to develop new skills. After all, we can only successfully bring about the necessary changes if all employees accept them and take personal responsibility for implementing them. The Volkswagen Group supports its employees in this process through systematic and targeted personnel development measures, spanning all levels from apprentices to top executives and from their first to their last day with the Group. This includes the development of strategic core competencies based on the Group's needs along with targeted initiatives that reflect employees' diverse individual career tracks (see page 51).

Supporting knowledge transfer

In their knowledge and professional experience, long-standing employees possess a significant asset which can benefit their younger colleagues. In aging workforces, knowledge transfer between the generations plays a very important role, while helping to ensure that valuable skills are not lost when individual employees retire. A comprehensive system of integration and knowledge management is essential to ensure that older employees pass their knowledge on to the next generation.

Working roles adapted to different ages

Different people age in different ways and at very different rates. The important thing for the company is to assess the capability of individual employees objectively and to tailor their roles accordingly. The Volkswagen Group is a pioneer in placing people in line with their individual strengths and capabilities. One current example here is the "SilverLiner" project at the Audi facility in Neckarsulm, Germany. In this project, Audi deliberately draws on the experience of older employees for the complex assembly of the Audi R8. Another exemplary concept is "Demographic Working Time": since 1998 the Group has allowed its employees in Germany to invest part of their wages or working-time assets in what are called "time asset bonds", which in turn are invested on the capital market. This concept helps employees to shape the later part of their lives in line with their wishes and the working-time assets accumulated on their lifetime account.

Safety and Health

Health risks arising from traffic noise and emissions and road safety risks continue to represent major challenges for the automobile industry. In the Western nations, manufacturers have achieved steady improvements through safety technologies, clean fuels and technical developments relating to emission control, combustion processes and noise reduction. In Germany today, for example, the risk of a road accident is considerably lower than the risk of an accident in the home. We can anticipate further significant improvements regarding nitrogen and carbon oxides, volatile organic compounds and particulates as new and more stringent thresholds and controls take effect. Lead emissions have been virtually eliminated. Yet despite these successes, further action is required. **Road safety and health – the global perspective** In the world's developing nations road safety is still a major challenge. In Road safety: a public health issue (2004), the World Health Organisation (WHO) reports that every year 1.2 million people are killed and more than 50 million people are injured in road accidents. According to the WHO's Global Burden of Disease (GBD), over the period from 2000 to 2020 we are likely to see a further 60% worldwide increase in the total number of fatalities and injuries due to road accidents. While the industrialised nations are set to see the number of road accident victims fall by 30%, this is more than offset by an increase of 80% in developing nations, and of as much as 144% in South-East Asia.



ACCIDENT STATISTICS IN EUROPE: BY COUNTRY

No. of traffic fatalities per 1 million automobiles in the EU-25 member states and candidate states, 2004 Source: Eurostat – Statistical Office of the European Communities (2007), Road traffic safety in the EU, 2004: regional differences

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The positive trend in the industrialised nations proves that the connection between the increasing number of automobiles and the number of road traffic fatalities is merely an indirect one. Further evidence is provided by the fact that the majority of accident victims in developing countries are among the group of "weaker" road users (children, pedestrians, cyclists, etc.). The root causes here are deficiencies in planning, designing and financing infrastructures and in the drafting and enforcement of standards. There is insufficient information and training for drivers, as well as a lack of effective emergency service provision to mitigate the consequences of accidents.

Some progress has been made in reducing harmful emissions in the world's developing and emerging nations. According to calculations by the Sustainable Mobility Project set up by the World Business Council for Sustainable Development (WBCSD), there has been an improvement in lead emissions, reflecting the growing availability of unleaded fuels. The outlook for coming decades regarding other harmful emissions is less positive, due to increasing traffic volumes and under-developed emission control technologies. Beyond Europe and Japan there is also little awareness of the harmful effects of traffic noise, although this awareness will doubtless increase as living standards rise.

The need for global action

The global introduction of proven standards in the fields of passive safety, infrastructure and vehicle technology is an urgent priority. National governments, legislative bodies, judiciaries and local authorities must all play their part in creating a framework in which these standards can be enforced. Meanwhile, the automobile manufacturer's aim must be to sell its customers more active safety: drivers can already buy intelligent systems that help them react appropriately to road traffic risks while leaving them in full control of their vehicle.

Looking further ahead, the goal must be to develop an integrated system which analyses all the relevant health and safety risks and helps the driver to travel safely in complex traffic environments anywhere in the world. The automobile industry is playing a pioneering role in moving towards this goal. For example, the Mobility 2030 report commissioned by automobile manufacturers, suppliers and fuel producers as members of the WBCSD calls for an integrated approach: individual systems such as car-sharing, community transport services, safety technologies and emission protection in the vehicle, along with new intelligent mobility systems should, says the report, be integrated in an effective overall system. Furthermore, research findings regarding accident factors and health risks should be made available to everyone involved in the field. The German automobile industry is

also in full agreement regarding the importance of integrated safety concepts. For example the VDA (the German Automotive Industry Association) is working with the government, authorities and industry partners on its Safe and Intelligent Mobility project, seeking solutions for widespread intelligent vehicle-to-vehicle and vehicle-to-infrastructure networking. According to the VDA, the key prerequisite here is the creation of compatible interfaces and widely applicable communications standards. Realising such a project would, however, require collaboration from many political bodies and social groups as well as full cooperation from all manufacturers. The Volkswagen Group, as a leading supplier of mobility systems, is playing an active role in this VDA project, conducting accident research in conjunction with leading universities, including Tongji University in Shanghai, and making the results available in the public arena (see page 40 and 60f.).

A great deal also remains to be done regarding noise and harmful emissions, especially in the world's megacities: the governments involved need to introduce a range of effective measures, starting with the introduction of more stringent limit values. The industry has made great strides in reducing the noise emitted by the vehicle itself; now the potential for improvements on the infrastructure side needs to be utilised – for example through the use of low-noise road surfaces. Finally, both manufacturers and retailers need to bring clean fuels and low-emission propulsion systems to the market at affordable prices (see page 45).

The Volkswagen Group in China

China is one of the world's most dynamic economic regions: driven by annual growth rates of ten percent and more, last year this country rose to become the world's fourth-largest economic power. The economic boom has benefited the inhabitants of Eastern China's major coastal cities in particular, enabling them to enjoy a higher standard of living. Each year as many as 20 million people are joining the new urban middle classes and attaining a life of relative prosperity.

Yet the downside of this rapid economic growth – achieved with insufficient regard for the environment and the country's natural resources – is becoming increasingly apparent. In many regions the water table is falling; lakes and rivers, air and soils are highly polluted. China is responsible for 17% of the global output of greenhouse gas CO_2 , ranking no.2 in this respect behind the United States – although per capita emissions are more than five times as high in the USA. The UN's Human Development Reports regularly reach the conclusion that further progress in China will be jeopardised unless the country can change direction on environmental matters. In September 2006, the Chinese State Environmental Protection Agency (SEPA) published a report which stated that economic losses arising from environmental pollution amounted to 3.1% of GDP in 2004.

The Chinese government has realised that the country can only maintain its growth course over the long term if it reduces environmental pollution, preserves its natural resources and addresses global environmental issues. The government also realises that it is important to give the rural population an opportunity to participate in the country's growing prosperity. In its eleventh five-year plan of March 2006, the government therefore introduced a new policy for sustainable and balanced development. Concrete measures to be implemented between now and 2010 include increasing energy efficiency by 20% and reducing environmental pollution by 10%. This unprecedented commitment to sustainable development was a landmark in Chinese politics and was expressly reaffirmed by the National People's Congress in 2007.

Automobile production – a boom sector

Mobility is a vital prerequisite for economic growth and social progress. For most people, individual mobility is a key element of a high standard of living. In China, owning a car is one of the most important status symbols. When China joined the WTO in 2001, bringing a reduction in high import taxes and therefore in automobile prices, the number of cars on China's roads increased dramatically. Yet even so mass mobilisation is still at a very early stage: experts estimate that 4.8 to 5 million new passenger cars will join the Chinese fleet in 2007. More than 7 million passenger cars and commercial vehicles were newly registered in China in 2006. And China has already become the world's second-largest automobile producer, after the USA.



The Volkswagen Group is an official partner of the 2008 Olympic and Paralympic Games in Beijing

However, mass motorisation is also bringing new problems with it: the air in the major cities was already heavily polluted; now the pollution has been worsened by nitrogen oxides (NO_x) from road traffic and the higher CO_2 output to which the growing numbers of vehicles contribute. Despite heavy investment, the road network is still in a state of disrepair over large distances, with no separate provision for pedestrians or cyclists in many places. Then there is the fact that driving tuition is often inadequate and there are many new drivers on the roads – this is having a clear impact on the day-to-day situation on China's roads and the high incidence of accidents: in 2006, seven people died for every 10,000 vehicles on China's roads, around five times as many fatalities as in Germany. Climate and Energy Special Report: Powertrain and Fuels Strategy Globalisation and Local Responsibility Demographic Change and Employment Safety and Health Special Report: Volkswagen in China

Partnership with China

In recent decades the Volkswagen Group has made a decisive contribution to the development of the Chinese automobile industry. More than 20 years ago we were one of the first international groups to invest in the Chinese market. Through to 2007, the Volkswagen Group was responsible for around one fifth of all investments in the Chinese automobile industry – totalling more than \notin 6.4 billion. Right from the start we brought modern technologies and high production standards to China and provided intensive training for local employees. We also played a decisive role in helping to build up the supplier industry in China.

Shanghai Volkswagen (SVW), the joint venture we founded in 1985, now has more than 11,000 employees and is the biggest joint venture in the automobile sector in China. Its two engine and three vehicle production plants have to date built more than 3.5 million vehicles, including such locallydeveloped products as the 2005 Passat Lingyu. SVW brought the new VW Polo to the Chinese market at almost the same time as its global launch in 2002. In 1990 Volkswagen founded a second joint venture, with China's FAW (First Automotive Works), which AUDI AG joined as a third partner in 1995. FAW-Volkswagen started operations in 1991. Following the expansion of production in 2004, this plant now produces as many as 450,000 vehicles per year, including the Volkswagen models Magotan, Sagitar, Bora, Golf and Jetta and the Audi A4 and A6L.

Alongside the two joint-venture vehicle producers, together with its partners, Volkswagen has also set up a number of component plants, including a gearbox joint venture in Shanghai in 2003 and a joint venture for powertrain components in the following year. Two engine plants producing stateof-the-art, fuel-efficient engines were opened in Loutang/ Shanghai (2006) and Dalian (2007) in order to implement the Volkswagen Group China's strategy for reducing fuel consumption and vehicle emissions. The Volkswagen Group manufactured more than 700,000 vehicles in China in 2006, consolidating its market leadership.



Opening ceremony at the engine plant in Dalian in 2007

The "Olympic Program"

2006 saw an important turning point in our strategy in China: after Volkswagen's market share had fallen sharply between 2003 and 2005, at the end of 2005 we launched the "Olympic Program" - a comprehensive programme of restructuring measures that we will be implementing in stages through to 2008. By the end of 2006 we had already achieved a 24.3% increase in unit sales and a market share of 17%. Our plan is to further consolidate our leading position in the Chinese market, mainly through restructuring measures, stringent cost reductions and a consistent focus on customer requirements. In order to achieve this, between now and 2010 we will be launching a total of twelve to fourteen new models specially designed to meet the needs of our Chinese customers. The restructuring of our sales organisation to reflect the needs of new customer groups has also played a part in this success.

Environmental responsibility

Our goal is to reduce the fuel consumption and emissions of our models produced in China by more than 20% by the year 2010. We used the trade fair Auto Shanghai 2007 as a platform for presenting the technical solutions and models that will help us reach this goal – including alternative propulsion systems designed to minimise CO_2 and nitrogen oxide emissions and new engine and transmission technologies. One example is our new generation of TFSI engines with petrol direct injection and turbocharging: our new engine plant in Dalian began producing these engines in spring 2007, i.e. at the same time as the technology was introduced in Europe. With their low fuel consumption and emissions these engines already comply with the EU4 standard which is set to come into force in Beijing initially (from 2008) and only later across the whole of China (from 2010). Also making their debuts in China were the natural gas powered Touran EcoFuel and our Polo BlueMotion, Europe's most economical five-seater.

We are setting high environmental standards on the production side, too. We set up environment management systems and secured ISO 14001 certification at an early stage in both our joint ventures. By the end of 2007 all the Chinese joint ventures in which Volkswagen has a stake will be certified to this standard. We also take environmental protection very seriously on the retail side: here, too, the appropriate certification processes are already under way. We plan to establish our regular Regional Conferences as a pillar of our Group-wide Environmental Management System: every three years an international team will identify strategic environmental goals and define concrete action plans for the future. The first environmental Regional Conference in China took place in Shanghai and Changchun in 2005. This conference initiated concrete measures designed to integrate environmental considerations into the product development process more effectively, to improve environmental communications and to protect the soil and the groundwater.



Official launch ceremony for the accident research programme with Tongji University, attended by Christian Wulff, Minister-President of Lower Saxony in Germany. Front row, left to right: Dr. Suixin Zhang, Vice President Volkswagen Group China; Matthias Rabe, former Group Research Director Volkswagen AG; Prof. Yu Zhuoping, Director of the Automobile School at Tongji University

Road safety and intelligent traffic management

Another key element of sustainable mobility is ensuring the safety of all road users. With this aim in mind, in 2005 SVW and Volkswagen AG in Germany launched an accident research programme in conjunction with Shanghai's Tongji University. The goal of this programme is to analyse the causes of the many accidents that occur and to develop and implement concrete action plans. We have already staged four national conferences and symposia on road safety and accident research, making a key contribution to establishing this issue on the agenda among the scientific community and the general public. We have also produced a TV series to raise awareness of traffic issues. This is broadcast in cooperation with Chinese television company CCTV. Looking to the future, we are planning targeted initiatives to raise awareness among opinion leaders and influencers.

Another way of meeting the challenges of growing volumes of traffic on the roads in our view is through intelligent traffic management systems. These can help to ensure that the existing road infrastructure in the major cities is used to optimum effect. In 2006, Volkswagen presented the RDS-TMC intelligent traffic management system in Beijing and Shanghai, in partnership with the European Union.



Panel discussion at the presentation of the award for "Most Responsible Company 2006" to the Volkswagen Group

Responsibility in China

Last year, Volkswagen Group China was honoured for its exemplary commitment to its employees and to Chinese society with the "Most Responsible Company of 2006" award. Presented by the China Newsweek magazine and the Chinese Red Cross, this is one of the most important awards for CSR in China.

As we see it, our long-standing involvement and our market leadership give us a special responsibility for making a contribution to sustainable development in Chinese society. For us this includes using the country's natural resources responsibly and setting the exemplary standards as an employer. We have set ourselves the goal of becoming China's most environmentally friendly automobile manufacturer. In the Green Future Environmental Educational Initiative, launched in April 2007, Volkswagen is working with the Chinese national environment protection agency to raise awareness of the importance of protecting the environment among

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schoolchildren in particular. The programme will be running through to 2010 and Volkswagen Group China will be investing a total of RMB 8 million (around € 800,000) in events in schools, books and photographic competitions on the theme of environmental protection.



Volkswagen Green Future Environmental Education Initiative Volkswagen Group China 大众汽车集团(中国)

In 2007, Volkswagen launched the Green Future Environmental Education Initiative in conjunction with the Chinese environment protection agency

Both Shanghai Volkswagen and FAW-Volkswagen have launched tree-planting projects. In March 2007, Shanghai Volkswagen introduced its Green Olympic Fund, making a contribution to the fund for every vehicle it sells. The money raised as a result will be used to plant trees in appropriate locations in China. In April, FAW-Volkswagen began to plant trees over an area of 200,000 m² to the north of the capital Beijing. Volkswagen has also set new standards for training in China, organising training in its joint ventures along the lines of the dual system of theoretical and practical training that is used in Germany.



Official tree planting ceremony at Shanghai Volkswagen (SVW)

The Olympics

We are extremely proud to be an official partner of the 2008 Olympic and Paralympic Games taking place in Beijing. The event's motto - Green Olympics, High-Tech Olympics, People's Olympics - is entirely in tune with our company's long-term goals and our commitment to environmental protection, technological progress and social responsibility. As a lead sponsor, the Volkswagen Group will support the Olympic and Paralympic Games in Beijing both financially and by providing vehicles and other services. Some seven million visitors are expected to converge on Beijing in 2008. We are offering the organisers a fleet of highly environmentally-friendly vehicles, consisting of models featuring advanced diesel technology and the latest generation of fuel-efficient petrol and EcoFuel technology.

Strategy and Management





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Future-Orientation within the Group Management and Coordination Corporate Governance Sustainability in Supplier Relations

STRATEGY 2018 REPRESENTS VOLKSWAGEN'S ADHERENCE TO A MANAGEMENT PHILOSOPHY BASED ON SUSTAINABILITY AND THE PURSUIT OF LONG-TERM GOALS. BECAUSE IN ORDER TO ACHIEVE SUCCESS IN THE MARKETPLACE, TODAY COMPANIES NEED TO SHOW A FIRM, ONGOING COMMITMENT TO TACKLING THE CORE CHALLENGES FACED BY MODERN SOCIETY.

The issue of how we deal with social challenges lies at the heart of a far-reaching process of analysis that we are conducting as part of our future-research activities. This includes an ongoing study of the risks associated with climate change, safety and health-related aspects of personal transportation and the effects of globalisation and demographic shifts – all with the focus on customer expectations and our product development options. However, these challenges are not all about risk. The ability to identify trends early can also give a company the opportunity to boost its competitiveness.

The results of our future-research are backed up by our Group Values, which set out sustainability as a basic value of our day-to-day work. At the same time, we are aware of our responsibility as an international Group to implement standards around the world that offer answers to the challenges of globalisation. Only by doing so can we meet our responsibilities along our entire supply chain, ensure the safety and satisfaction of all our employees and be a good corporate citizen.

Instilling a business philosophy based on sustainability at a global corporate group like Volkswagen that employs almost 325,000 people around the world represents a major challenge. We have commissioned the Coordination CSR and Sustainability office, set up in 2006, with a range of tasks aimed at embedding the principles of sustainable corporate management even more rigorously and systematically across all departments and levels of the Group. These efforts are supported by a number of management systems and in-house tools that ensure compliance with our values and standards.

Future-Orientation within the Group

The Volkswagen Group developed its Strategy 2018 to tackle the challenges faced by a multinational company. Drawn up on the back of a systematic analysis of social developments, it plays a crucial role in safeguarding the Group's ability to meet the tests of the future and takes its lead firmly from our seven Group Values. Since 2003 these values have formed the basis for the work of our almost 325,000 employees around the world. One of our Group Values is the principle of sustainability, which dictates how "in our daily work" we "take account of the long-term goals approved by the company," that we are responsible for maintaining a "longterm balance between economic, environmental and social goals," and that "safeguarding the future in all respects" is a core duty of management.

The strategic outlook

Only by detecting prevailing social and technological trends at an early stage and understanding the development of our sales markets, the future wishes of our customers and new management trends can we establish firm foundations for the long-term management of the company. With this in mind, we are constantly analysing key fields of activity and control variables.

Market research

Market research and market analysis are tried and tested methods when it comes to evaluating customer requirements and identifying market trends in the relatively short term. These studies form the basis for marketing decisions across the Group and as such must deliver a comprehensive and detailed analysis of market developments. We employ a broad spectrum of analytical tools to evaluate the will to purchase and behaviour of our target groups. This also allows us to make a reliable assessment of our competitors' strategic and technical positioning and plan our market activities accordingly.⁹⁾

Global scenarios for social developments

We carry out medium-term analyses within various business processes to identify trends in society, technology and politics at an early stage and respond to the opportunities that they present. To this end, we compile a systematic record and assessment of uncertainties and risks in the global environment of the automotive markets going forwards. Then, based on this, we construct global scenarios for possible social developments.

This process also sees us refer back to reasonably sound assumptions on the social development of our corporate environment. These might concern the age structure of society, urbanisation trends, environmental legislation or the availability of resources. From these we derive scenarios that provide models of our future development against a background of specific social conditions. In a second step, we then study a series of relatively uncertain control variables, such as energy supply and currency risks. As potential trendbreakers, these have the ability to change the course of the





Future-Orientation within the Group Management and Coordination Corporate Governance Sustainability in Supplier Relations

scenarios. The global scenarios compiled through these methods are channelled into the Group planning and strategy process. They help us to assess opportunities and risks, sharpen our eye for future challenges and assist us in the development of new strategic options. The global scenarios therefore also serve as a planning basis for the Group Strategy 2018.

Future-research and trend analysis

The ability to develop innovative products calls for early identification of customers' reasons for buying and technological trends. To this end we monitor technological, social and environmental trends and draw up long-term future scenarios, and transform these into product ideas, vehicle functions and, of course, strategic roadmaps. Our Futureresearch creates models depicting the behaviour of our customers in the future. At the same time, we use our technological early warning systems to detect new technological approaches as they emerge. This ensures that we identify technologies relevant to our competitive position at a very early stage. This dual process of analysis eventually flows into technological roadmapping, which brings together all research and development projects in terms of both time and content and consistently tailors them to vehicle projects and future customer requirements. Another important component of these long-term scenarios are the analyses provided by our environmental early warning teams (see page 34).

Mobility research

At the Volkswagen Group our responsibility extends beyond the vehicle production process to researching and enhancing overall road traffic systems. Together with partners from the worlds of science, politics and industry, we aim to identify intelligent and sustainable mobility solutions.

For example, under the guiding scientific hand of acatech (the Council for Technical Sciences of the Union of German Academies of Sciences and Humanities) we have compiled projections for traffic development in Germany up to 2020 and come up with approaches designed to tackle the problems predicted. Traffic density is set to continue rising and action is need on various levels. A fully functioning and adequately developed infrastructure provides the basis for workable mobility solutions, and this is where traffic management initiatives come into play. These include the nationwide diagnosis and rapid processing of traffic information, the use of this information to produce recommendations for drivers, and optimised road maintenance management.

This quality of infrastructure allows intelligent vehicle technology to display its full potential. We know that a lack of information on traffic flow, excessive demands on drivers and driver error are among the causes of road congestion. Plus, it is no secret that the number of roadworks will increase in the future and these are already a core cause of tailbacks. With this in mind, Volkswagen is planning to introduce a "roadworks navigator" that adds a traffic assistance function to advanced ACC (Adaptive Cruise Control) technology. This system will assist drivers to adapt their driving style to heavy traffic, helping to reduce traffic disruption, ease the impact on the environment and cut journey times. Technically, this increase in efficiency is achieved by a control strategy (distance, speed, acceleration) based on thinking ahead and adapting driving responses to the traffic environment.

This kind of traffic-related technology cannot be developed in isolation, which is why the Volkswagen Group is involved in the German research initiative "Adaptive and Cooperative Technologies for Intelligent Traffic" (AKTIV) launched in September 2006. The combination of intelligent road systems, innovative traffic management and highly developed vehicle technology at work within a sound infrastructure provides the key to increasing the efficiency of road networks in the future.¹⁰

Strategy 2018 -

the future direction of our company's activities

In 2003 our extensive future-research programme yielded tangible results in the formulation of global scenarios leading up to 2018. These were channelled into Strategy 2018 and form the basis for our future planning.

In our Group Strategy, in keeping with our Group Values we have geared our operating policies towards sustainable market success and profitability. One keyword in this strategy is sustainability. Here we focus primarily on the central issues of "cost-effectiveness and value enhancement", "technical expertise and quality", and "the environment and social responsibility". As part of our strategy we have identified the opportunities and risks presented by climate change and worked out projects and measures aimed at promoting environmental protection. On the one hand, these are linked directly to our products, the technologies imbedded in them and their content; on the other they focus squarely on the processes and structures within the company (see page 31ff.).

Several hundred senior managers at the Group have defined central basic positions as part of the strategic process. Since 2004, all the brands and divisions involved have been working to put the primarily quality-related Group Strategy goals into practice. And the implementation is now well advanced at all the brands and in all business processes. The issues involved have been extensively developed and many measures were deployed in the period under review. We have also been working hard on other areas, where certain

¹⁰ Read more about "Mobility Research" at: www.volkswagensustainability.com → Environment → Mobility Research strategic elements have yet to be fully worked out. The longterm development of the return on investment in the Automotive Division and thus the reported operating profit are areas where we are aiming to make further progress. We are continuing to focus all our energies on the goal of enhancing these areas through the product measures and market development strategies we have introduced.

Our Group Values –

continuity and safeguarding the future

The seven Group Values underpin our activities. The principle of sustainability serves as the basis for the other values. For us at the Volkswagen Group, sustainability means taking into account the company's long-term goals in our day-to-day work and striking a balance between economic, environmental and social objectives.

The rigorous implementation of these values in the day-today work of each individual employee enables us to become more efficient and successful as a Group. The Corporate Culture Office helps to ensure that the guiding principles are embedded within the Group. It provides employees and management with information on the Values and guiding principles, current projects and initiatives via the intranet, and offers local assistance in their implementation.

GROUP VALUES

CUSTOMER NEARNESS TOP PERFORMANCE ADDED VALUE RENEWABILITY RESPECT RESPONSIBILITY SUSTAINABILITY

International standards provide a framework

It is in our own interests to have happy, healthy and innovative employees around the world making top-quality products. As a global group we are well aware of the importance of international standards as a framework for business. In developing and emerging economies in particular, internationally binding minimum standards play a central role. That is why we support common worldwide norms, such as the International Labour Organization standards (2002), the OECD guidelines for multinational companies (2000), and the sustainability principles of the WBCSD (1995) and the International Chamber of Commerce (1991).¹¹⁾ Since 2002 the Volkswagen Group has been committed to the principles of the Global Compact. Initiated by former UN Secretary General Kofi Annan and with 3,000 companies from 70 countries now signed up, this is the largest and most important alliance worldwide in the campaign for responsible corporate management. The Global Compact promotes the safeguarding of human rights and international labour standards, the protection of the environment and the elimination of corruption. We actively implement the ten principles of the Global Compact in numerous Group projects.

However, our sense of responsibility extends beyond the gates of our plants. Driven by the aim of boosting occupational safety and the protection of employee health at supplier companies in developing and emerging economies, the Volkswagen Group, International Labour Organization (ILO) and German Corporation for Technical Cooperation (GTZ) joined forces to launch a public-private partnership project in July 2004, in which eight supplier firms from South Africa, 13 from Mexico and eight from Brazil are now involved. The project sees Volkswagen experts and national occupational safety inspectors teaming up as part of a joint initiative to conduct what amounts to an audit at small and medium-sized supplier companies. In addition to a comprehensive inspection of the premises, these two-day audits also involve interviews not only with management, employees and specialists, but also with employee representatives. Once the audit is complete, the supplier firm is contacted with effective and useful recommendations that can be easily implemented. The experiences gained in the audits are channelled into national training programmes for work inspectors, who are supported by the ILO. Since many of the audits conducted so far have involved similar problems and solutions, the Volkswagen Group is planning to create an online system containing examples of best practice for all suppliers (see page 36f.).

Read more about "International Standards" at: www.volkswagen-sustainability.com -> Strategy and Management -> Voluntary Commitments

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Management and Coordination

The Volkswagen Group has implemented a series of management systems and developed instruments of its own to ensure that its values and standards are adhered to at all its plants around the world. They help our employees to incorporate environmental, social and economic factors into their decision-making, to monitor risks and manage environmental activities in an effective way.

Group principles

We set up our first organisational unit for environmental protection as long ago as 1971, driven by a desire to instigate an ongoing improvement in our environmental performance by bundling our expertise and coordinating responsibilities. In 1995 we became one of the first automotive groups to develop its own in-house environmental policy. Today, this policy continues to provide the framework for all the environmental activities of the Group's brands and companies.

In 2002 we committed ourselves to Group-wide standards of sustainable corporate management as part of our Model of Sustainable Development. These standards are designed to strike a sound balance between economic, environmental and social issues. The Model of Sustainable Development ties the company's management into a culture of cooperation with employee representatives, which is reflected in the Factory Agreement on Environmental Protection. This agreement sets out the rights and obligations of employees as far as environmental protection is concerned. In addition, in cooperation with the World Works Council and the International Metalworkers' Federation we have also introduced the Declaration on Social Rights and Industrial Relationships, paving the way for a set of common worldwide standards for employees.

2004 saw the arrival of the Occupational Safety Policy of the Volkswagen Group. The Occupational Safety Policy goes beyond the legal requirements and Volkswagen's own occupational safety standards in prescribing timely action to promote the health, performance and satisfaction of our employees.¹²

Coordination CSR and Sustainability office

The creation of the Coordination CSR and Sustainability office in 2006 signalled the intention of the Volkswagen Group to sharpen its sustainability profile. This office is responsible for the strategic direction and optimisation of CSR and sustainability management across the Group.

A key element of its brief is to shine the spotlight inside the company itself. Setting up a crossfunctional CSR project team has strengthened the exchange of information between the individual specialist departments. This enables expertise to be accessed at source for use in enhancing the company's CSR and sustainability profile. This might involve adapting and developing information systems in different areas of the company – such as the environmental and social sectors – and collating and preparing information for profiles, ratings and publications, for example. The office reports to the CSR Steering Group, which brings together decision makers from all the central Group departments on a regular basis.

Over the coming years additional energies will be channelled into an active, wide-ranging and transparent stakeholder dialogue, while internal consultancy processes will also be driven forward.

Coordination of environmental protection activities

In order to improve the Group-wide coordination of our environmental protection activities, we reorganised the Environmental Department in 2006 and shifted its focus to strategic, product, production and mobility-related areas. The Group Environmental Steering Group (GESG) set up in 2003 develops Group environmental strategies and ensures compliance with our environmental principles in all the Group's divisions and at all its plants. The Group brands, the regions where their production plants are located and experts from Group HQ are all represented in the GESG, which liaises closely with the environmental protection bodies of the individual brands. They work together to define environmental goals and monitor the measures implemented to meet them.

Another important instrument in the Group's environmental organisation are our Regional Conferences. They maintain a healthy line of communication between Group HQ and the regional Environmental Management Officers. Every three years we organise Regional Conferences outside Europe in North America, South America, South Africa or Asia. Raising employee awareness, ensuring the transfer of knowledge and setting out goals all help practical environmental protection measures to be introduced at the plants. We held the first Regional Conference in Mexico in 2003, and at the end of 2007 we will be inviting all the regional representatives to a Group Environmental Conference in Wolfsburg. This will provide an opportunity to report back on progress at Group level and on the results of the Regional Conferences, and to draw up common goals.

General management tools

We systematically integrate environmental and social trends into our planning processes in order to reach our goal of sustainable profitable growth. To this end, our Environmental Radar team constantly analyse global environmental developments and supply us with the relevant information (see page 34).

At the product level, Life Cycle Assessment is an effective tool when it comes to making economically and environmen-

GROUP SUSTAINABILITY STRUCTURE



tally sensible decisions. A product's life cycle extends from the extraction of the raw materials, through the production of the necessary materials and components and the vehicle service life all the way to end-of-life recycling. Since the early 1990s Volkswagen has used its Life Cycle Assessment tool for the analysis and subsequent optimisation of its products and processes.

Examples of this are the intelligent lightweight construction techniques used in the Passat B6 (see page 40), the ongoing improvement of our Fuel Strategy and the development of pioneering recycling processes.

In 2006, we developed a software tool which uses a predefined data structure describing the vehicle in terms of its materials and processing techniques to automatically put together a Life Cycle Assessment model. This reduces the expense involved in creating assessments for complex products by up to 80%, and the results can thus be fed into the development process much faster.

As we mentioned earlier, our sense of environmental and social responsibility does not stop at the gates of our individual plants. The global challenges of our times can only be mastered by companies and their suppliers working together. Our aim is therefore to establish a two-way flow of information with all our business partners, who can then work with us to set a course towards sustainable mobility. In 2006, we took our systematisation of this commitment to the next level with the introduction – in cooperation with the University of Oldenburg – of a supplier concept aimed at enforcing minimum environmental and social standards worldwide (see page 36f.).

We also attach great importance to ensuring comprehensive management of environmental activities at our importers. For example, Volkswagen Group Japan – one of the country's largest importers – was granted ISO 14001 certification for its processes in 2006. The company's largest Japanese facility, the Vehicle Preparation Center (VPC), was certified in line with this international standard back in 2000. For the second recertification in 2006 the VPC's environmental management system was extended to cover the whole company, including its administration departments. Twice a month, "ISO News" brings Japanese employees up to date on the latest developments in environmental and quality management, and on the social commitments of Volkswagen Group Japan.

Production-related tools

In 2002, we derived eleven environmental standards from our environmental policy and, at the start of 2007, converted them into binding environmental principles for our production plants (see page 31). These principles mark out the framework for our integrated environmental protection activities. In order to constantly improve this framework and safeguard common worldwide standards, the Volkswagen Group has been developing standardised environmental management systems at its plants since 1995. Since then we have attached great importance to having new plants immediately certified to international standards such as EMAS or ISO 14001. This also applies to the new Volkswagen plants still under construction in Pune (India) and Kaluga (Russia). Before the decision is taken on the location for a new plant, we carry out a location inspection focussing on a variety of environmental factors (environmental due diligence). You will find an overview of the current status of certification in the Portrait of the Group (see page 8f.) although the process is very much ongoing. Our goal is to have all the Group's plants certified by the end of 2007.¹³⁾

Product-related tools

Volkswagen was the world's first automotive company to introduce an environmental management system into its Technical Development department. ISO 14001 certification was obtained in 1996 and the third recertification process was successfully concluded in 2006.

The system is built around the Environmental Policy of the Volkswagen Group and the Environmental Goals of the Technical Development department. These include the use of environmentally compatible materials and production

¹³ Read more about "Environmental Management Systems" at: www.volkswagen-sustainability.com → Strategy and Management → Sustainability Management → Management Systems
Future-Orientation within the Group Management and Coordination Corporate Governance Sustainability in Supplier Relations

processes, meeting fuel consumption and CO₂ guidelines and satisfying regulations governing recycling, exhaust emissions and noise generation. These environmental goals are specified in detail and signed off for each new development.

Our employees and suppliers can find out more about current environmental legislation and the targets we have set ourselves by accessing environmental norms and specifications, and a wealth of other – intranet-based – environment-related content.

Within the scope of a reorganisation of product-related environmental protection at Volkswagen AG in 2006, the Environmental Management Officer of the Volkswagen brand also took on the role of Environment Officer, Products. This role involves improving the environmental friendliness of products from development to launch and optimising product recycling. A team of environmental experts has been set up to ensure that environmental factors are taken into consideration in the development process for every new vehicle project. This team has an advisory and steering role in the development of individual models and makes use of the environmental management system toolbox. For example, concepts for the use of renewable raw materials that appraise the use of environmentally compatible materials and measures aimed at minimising fuel consumption and thus CO₂ emissions are signed off and implemented at the pre-planning stage of the vehicle development process.

The Passat BlueMotion is one successful example both of the interplay between all the specialist areas and of the advisory role of the Environment Officer, Products. With fuel consumption of just 5.1 l/100 km (136 g CO_2/km) in saloon form or 5.2 l/100 km (137 g CO_2/km) as an Estate, this model boasts very low fuel consumption and thus very favourable CO_2 emissions for its class (see Special Report: BlueMotion/ e-models).

Another important tool is end-of-life vehicle recycling. The recycling of vehicles at the end of their service life is a key factor across the automotive industry. Across Europe, we have put customer-friendly collection points in place in accordance with the EU End-of-Life Vehicles Directive.

Generally speaking, recycling end-of-life vehicles¹⁴) is an extremely complex business due to the large number of materials involved. That said, 80% of each end-of-life vehicle by weight is already recycled. The remaining shredder residue accounts for some 20% of the vehicle by weight and this is largely landfilled. Our new process – developed in cooperation with SiCon GmbH – for the extraction of secondary raw materials from shredder residue, can increase the recycling rate for end-of-life vehicles to 95%. In 2006, the two partners in the project received the Environmental Award of the Federation of German Industries (BDI). The EU Commission also commended the process with its European Business Award for the Environment in the "Processes" category. In June 2007, Volkswagen was presented with a certificate from the German Federal Motor Vehicle Office (KBA) in recognition of its ground-breaking environmentallyfriendly strategy, acknowledging the company's activities in environmentally compatible vehicle recycling.

Human resources development

We also include human resources development as part of our far-reaching sustainability management programme. Human resources development at the Volkswagen Group covers all systematically structured processes which allow the performance and learning potential of employees to be identified, sustained and fostered in line with corporate strategy and the personal development potential of each individual.

However, human resources development should not be put in the same box as individual career planning. Above and beyond that, it charts possible development paths and defines the characteristics and skills required – with the overall aim of putting "the right man/woman in the right job at the right time."

The overall scenario of human resources development spans systematic selection in the recruitment process, talent development along differentiated career paths and the support of employees through targeted and needs-oriented skills development. This way we can nurture young employees, identify and develop talented people, keep experienced employees moving forwards and use targeted needs-oriented measures to maintain a high level of performance over a full professional lifetime.

The human resources development guidelines¹⁵⁾ can be summarised in the following key points:

- Human resources development is a leadership task of management at all levels
- Human resources development is defined by transparent decisions, trust, information and results-oriented communication
- Human resources development promotes the personal development opportunities of all employees through a systematic process of further training
- Lifelong learning is a duty and personal responsibility of all employees
- S The promotion of employee health, enabling staff to remain fit and motivated, is an integral part of human resources development

* Read more about "End-of-Life Vehicle Recycling" at: www.volkswagen-sustainability.com -> Environment -> Resource Conservation -> End-of-Life Vehicle Recycling

¹⁵ Read more about "Human Resources Development" at: www.volkswagen-sustainability.com → Employees → Human Resources Development

Corporate Governance

Good practice and responsible corporate governance reinforce the trust of our customers and investors, thereby laying the foundation for a sustainable increase in the value of our company. This is why the Board of Management and the Supervisory Board committed themselves in their declaration of November 17, 2006 to comply with all recommendations of the current German Corporate Governance Code as issued on July 24, 2006.¹⁶⁾

In addition, the Volkswagen Group will largely comply with the suggestions of the Code. However, it still has no plans to implement the suggestion made in the Code to the effect that one-time variable components tied to business performance should be taken into account in setting the remuneration of the Board of Management (article 4.2.3, clause 3 of the Code) and that long-term performance should be taken into account in setting the remuneration of the Supervisory Board (article 5.4.7, clause 5 of the Code).

In particular, in 2006 as in 2005 the remuneration paid to all members of the Board of Management and the Supervisory Board will be disclosed individually. We are thus increasing transparency on components of remuneration in line with the aims of the German Corporate Governance Code, and are implementing the Act on Disclosure of Executive Board Remuneration (VorstOG) that entered into force in August 2005.

The Board of Management provides the Supervisory Board with regular, complete and timely verbal and written reports on all issues relevant to the development of business and corporate planning, including the risk situation and risk management.

Our Group Values and guiding principles apply to all employees and have been drawn up to safeguard a high level of integrity and continuity in both their business activities and personal conduct.

Risk management

The goal of the Group's risk management system is to identify potential risks at an early stage so that suitable measures can be taken to avert the threat of loss to the company, and any risks that might jeopardise its continued existence can be ruled out. By using an efficient risk management system, we are able to identify risks promptly, to assess them and to counter them. We are prepared to enter into transparent risks that are proportionate to the benefits expected from the business.

The risk management of the Volkswagen Group is an integral part of the structure and workflows within the business processes. It is coordinated centrally by Group Controlling in conjunction with Group Auditing, and its efficacy and adequacy are reviewed on a regular basis. Responsibility for the risk monitoring system is decentralised, and lies with the individual divisions or the managing directors of equity investments. Through standardised written and verbal surveys by the Group companies' risk managers, the Board of Management always has an overall picture of the current risk situation. If there are variations from planned levels, appropriate countermeasures can be introduced without delay.

One element of sustainable development is the proactive management of environmental and social risks. As a means of monitoring environmental risks, the Volkswagen Group created the Environmental Radar team. Effectively an environmental early warning system, the team keeps a constant watch on global environmental developments and thus assists the Group's decision makers in their planning activities. The team provides market analyses and reports on the topics of Market & Opinion and Market & Competition. It also evaluates developments in the fields of technology, politics and law, natural sciences and medicine. The team's analyses are incorporated into business processes in a variety of ways: the Environmental Radar team advises our brands, regions and companies, and supports the development of new environmental product requirements. The results of its studies are presented to employees from Research & Development, Marketing, and Business Environment and Competitor Analysis in the course of internal workshops or as reports. In order to confront social challenges at an early stage, we also conduct a systematic process of dialogue with our stakeholders (see page 57f.).

Anti-corruption system

One key consequence of the misconduct of individual employees in the summer of 2005 was the introduction by the Volkswagen Group of an internationally structured Ombudsman System.

Launched on January 23, 2006, the Ombudsman System strengthens the Volkswagen Group's anti-corruption programme. In the role of ombudsmen, two lawyers will accept information about cases of corruption in strict confidence and pass this on to the company. A group of investigators from the Group Auditing, Legal Affairs and Security departments will examine each individual case and take action immediately if necessary. Employees and business partners can contact the two lawyers via an international telephone number, by fax or by email. At the same time, on the basis of their lawyer's duty of confidentiality, which is anchored in law, the ombudsmen preserve absolute secrecy in respect of every person providing information. This continues to apply if the matter should result in a criminal prosecution. It is entirely up to the person providing information what information the ombudsmen pass on to the company and whether anonymity is to be preserved.

At Volkswagen, a competent group of investigators will

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follow up every piece of information received. The chairman of the group of investigators and the person in charge of anticorruption measures at Volkswagen (the Anti-Corruption Officer) is the head of the Group Auditing function, who reports to the Chairman of the Board of Management. The company will provide the ombudsmen with regular feedback. In turn, the ombudsmen will remain in contact with the people providing information and may ask them additional questions arising out of the investigations. This system permits the exchange of information with people providing information while maintaining strict confidentiality.

In 2006 the ombudsmen received some 60 items of information. Around one third of the information related to serious incidents which were followed up rigorously. However, most of these incidents were still connected with the corruption affair.

Since June 2006 the Volkswagen Group has anchored its procedure against corruption in binding and transparent form in the company directive "Avoiding Conflicts of Interest and Corruption." This directive, which contains rules on accepting gifts and other benefits, on business meals or other events and on participation in other companies, is designed to give employees security and a guideline for their behaviour. The regulations, which also describe the entire anticorruption system of the Volkswagen Group with the ombudsmen, the Anti-Corruption Officer and the investigation and coordination team, are in line with the latest findings on combating corruption.

Political representation

The representation of interests on a political level – or "lobbying", as it is more popularly known – comes under the umbrella of the development of informed opinion in democratic society. As both a company and a part of civil society, the Volkswagen Group applies the pluralistic principles of that society to campaign for its corporate interests. In their lobbying work, our employees respect and promote the principles of free speech, the right to information, the independence of the media and the protection of the right to privacy, allowing for the public interest.

Integrity, a commitment to democratic rules and a respect for constitutional principles form the foundations of sustainable political lobbying. The Volkswagen Group recognises the applicable regulations and the agreements entered into by the company at national, European and international level and is committed to compliance with these regulations and agreements.

THE ANTI-CORRUPTION SYSTEM AT THE VOLKSWAGEN GROUP



Anti-corruption system as set out in Company Directive 34 "Avoiding Conflicts of Interest and Corruption", June 2006

Sustainability in Supplier Relations

The Procurement department of the Volkswagen Group makes a key contribution to meeting the company's goals not only its economic objectives, but also in terms of pursuing sustainable development in environmental protection and ensuring minimum social standards. The integrated approach characterising all three areas has long been a significant element of our corporate strategy and is more important than ever as globalisation extends its reach. To this end, it is essential that all Volkswagen AG business partners support our environmental and sustainability standards. Only by working together in this way can we fulfil our social responsibilities and secure the future of our partners along the value chain. All our partners are called upon to make their own contribution to sustainable development throughout the entire product creation process. In this way, the partnership-based development process already in place in the production sector is being extended to include production and plant-related environmental and social standards.

Environmental issues, such as regulations governing the use of materials, are therefore incorporated into business relations at an early stage in the form of company or industrywide standards and guidelines. At the same time, another research project has been looking into the scope for futureproof development along the full length of the value chain. The "Sustainability in Supplier Relations" concept was developed jointly with the University of Oldenburg, and involves the introduction of shared environmental and social standards for suppliers around the world. The Volkswagen Group sees this as a key building block in ensuring the competitiveness of suppliers going forwards. Indeed, experience has shown that an environmentally aware and socially responsible supplier more often than not also makes a better and more reliable partner from an economic point of view. All of this is in keeping with the Procurement department's vision of "Together – best in class, in customer value and cost."

The Procurement department ensured that all the suppliers affected were well informed before the systematic implementation of the concept got underway. The "Sustainability in Supplier Relations" concept was then introduced to our suppliers at the fourth International Supplier Exchange (IZB) in 2006, where Francisco Javier Garcia Sanz, Member of the Board of Management of Volkswagen AG for Group Procurement, underlined that: "For us it is important that our partners not only deliver flawless quality, but that they also work to minimum environmental and social standards around the world." The Volkswagen stand at the IZB was staffed by experts from all the Group's specialist areas. At the same time, the subject was also discussed with over 260 of the other companies represented at the event. Suppliers can find detailed information on Volkswagen's requirements of its environmentally conscious and socially committed business partners either on the B2B supplier platform or in our brochure



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Sustainability in Supplier Relations



"Sustainability in Supplier Relations at Volkswagen."17)

Since November 2006 we have been asking our main suppliers to take note of the Volkswagen Group's sustainability requirements. This involves engaging each supplier plant in our sustainability dialogue. Volkswagen provides suppliers who do not yet fully satisfy the Group's requirements with support as part of an extensive supplier development programme. Deviations identified by quality assurance teams during visits to supplier plants are reported to an ad hoc team of experts, who then draw up improvement measures that will remain effective in the long term. The same team is called into action whenever our early warning unit identifies suspect cases which might involve suppliers. However, to date there have been no such confirmed cases linked to Volkswagen suppliers.

In another supplier development initiative, an information event entitled "Sustainability and social responsibility – opportunities for suppliers in the automotive industry" was held in 2006 in cooperation with the Regional Centre for the State of Lower Saxony operated by Internationale Weiterbildung und Entwicklung GmbH (InWent). Experts from various branches of industry presented examples of the support available to small and medium-sized companies and highlighted examples of good practice from the supply chains on dealing with various environmental and sustainability issues.

For a long time now, the Volkswagen Group has been running supplier training courses as one way of meeting its social and environmental responsibilities. More than ten years ago we initiated a dialogue with business partners on the subject of environmental protection. These talks focused on developing joint measures aimed at meeting environmental goals and were broadened to embrace the topic of sustainability in 2003. Communications and the exchange of experiences between the Volkswagen Group and its suppliers on the subject of sustainability are grouped together under the logo "Priority A – partners for the environment and sustainability." So far, over 150 training events have taken place involving more than 1,500 participants.



Partner für Umwelt und Nachhaltigkeit



Product-Related Environmental Protection Production-Related Environmental Protection Employees Special Report: Team Joachim Franz Society and Dialogue Customers and Markets

THE VOLKSWAGEN GROUP HAS ALWAYS SEEN ITSELF AS A RESPONSIBLY MANAGED ENTERPRISE. OUR STRATEGY AS PROVIDERS OF PERSONAL MOBILITY AIMS FIRST AND FOREMOST TO OFFER OUR CUSTOMERS SAFE, RELIABLE, ECONOMICAL, HIGH-QUALITY VEHICLES AT AN AFFORDABLE PRICE.

In addition to the above goals, in order to compete successfully in the marketplace while at the same time providing more and more people with access to personal mobility, we also face up to the challenge of minimising the environmental impact of our operations. In keeping with our Group Values, as described in the Strategy chapter of this report, we continuously develop new solutions to improve our environmental balance sheet. Our integrated environmental management system looks at all aspects of the environmental performance of our vehicles, from development and production to their service life and eventual disposal. Already a leader in the field of low-consumption, low-emission powertrains, in the long term we aim to offer carbon-neutral mobility. On the production side too, we carry out continuous improvement with a view to making our production processes as sustainable and environmentally friendly as possible.

As the following report on our activities makes clear, we seek to be a leader in every field in which we operate. It is our employees who drive this process of technological evolution, and we therefore feel a deep sense of commitment towards them. Of course, in light of demographic change, this commitment also represents an important investment. We provide high-quality ongoing training, implement a performance-related compensation system and offer a wide choice of attractive ways of shaping personal career paths. We are strongly opposed to discrimination and actively seek, for example, to promote career opportunities for women and to reintegrate employees with diminished capabilities. In line with our occupational safety policy as described in the Strategy chapter, we develop a wide range of measures aimed at promoting the health and safety of our workforce. We have already achieved high standards in this area, and are committed to further continuous improvement.

Through our successful business performance, we also make a significant contribution to local regional development at our sites. We embrace our responsibility to provide a secure future for our sites around the world and are involved in a variety of local projects geared to local requirements. Through continuous dialogue, we involve our neighbours and other stakeholders in company decisions, thereby helping to safeguard against risks to our image.

Product-Related Environmental Protection

We believe that the Volkswagen Group has a responsibility to develop environmentally-friendly products and to build them using environmentally-friendly production processes. To achieve this, we aim above all to make further reductions in fuel consumption and exhaust emissions. At the same time we also support efforts to produce second-generation biofuels capable of being distributed via the existing infrastructure and used in vehicles currently on the market today. Our motto here is "Evolution, not revolution."

Fuel-efficient petrol and diesel engines

The aim of our Powertrain and Fuel Strategy is to explore long-term options for non-fossil-fuel dependent, largely carbon-neutral personal mobility. Before fossil fuels can be completely phased out however, our aim must be to use oil resources as efficiently as possible, thereby reducing emissions – above all of CO₂. On the powertrain side, this will involve improving the design and efficiency of our TDI and TSI direct-injection engine concepts, use of these concepts in hybrid systems, and in particular advancement of the Combined Combustion System (CCS) that combines the principles of diesel and petrol combustion processes. We are also pressing ahead with powertrain electrification, right the way through to battery-only drive.

The Group already has very fuel-efficient engine technologies in its product range, in the form of its direct-injection diesel and petrol engines.¹⁸⁾ Our TDI diesel engines have been successfully established in the market since the late eighties and remain the focus of ongoing development work. The current TDI engines have 20 - 25% lower (volumetric) CO_2 emissions than conventional petrol engines.

Since 2000, we have adopted the direct-injection principle in our petrol engines too - with our FSI technology. In a direct-injection petrol engine, the fuel-air mixture is formed in the combustion chamber, rather than in the manifold, as in conventional petrol engines. These engines offer better performance and torque than conventional petrol engines and if an economical driving style is maintained can consume up to 10% less fuel. Our direct-injection petrol engines with twin charging, codenamed TFSI or TSI, better this by a further 10%, outperforming even the strictest emissions standards and offering a very long service life. These savings are achieved above all by downsizing of the engines - with no sacrifices in performance. The reduced displacement reduces friction losses and increases engine efficiency. This world-first system, unveiled in 2005 in the Golf GT, has already made a name for itself and earned our engineers "Popular Science" magazine's "Best Engine 2006" innovation award and the Paul Pietsch Award of the German magazine "Auto motor und sport". In mid-2007, the TSI strategy also made its debut in the 90 kW segment, where in conjunction

Modern vehicle technology

A further solution for reduced fuel consumption is lightweight vehicle design. Audi is a pioneer and technology leader in the field of aluminium-based lightweight design. Its aluminium spaceframe technology first went into production in 1994, but in the meantime aluminium is by no means the only lightweight material used. For example, Audi is expanding the use of fibre-reinforced composites, thereby making the bodyshell approximately 43% lighter than a conventional steel construction.

Audi engineers have also developed a ground-breaking technique for the thermal joining of steel and aluminium during the production process. It is now possible to form soldered connections between steel and aluminium and to replace aluminium panels with steel.

In the case of all-steel bodies, we are reducing vehicle weight by increasing the use of high- and ultra-high-tensile steel. In the new Volkswagen Passat, these types of steel already account for 82% of all steel used. This makes it possible to increase safety without making the body structure any heavier than that of the previous model.

In developing the Passat B6, one question regarding lightweight design was resolved with the help of a Life Cycle Assessment. That question was whether using new shapehardened components would have overall ecological and economic benefits. The Life Cycle Assessment showed that during production, the shape-hardening process is considerably more energy-intensive than the conventional process, resulting in additional emissions of 22 kg of CO₂ equivalent per vehicle. However, the greater strength of these components means that less steel is required, reducing the weight of the body by about 20 kg and thus making the vehicle more fuel-efficient. Accordingly, the Life Cycle Assessment showed that using shape-hardened steel would have net ecological and economic benefits and would result in a total saving of 174 kg of CO₂ equivalent on every Passat B6. If 2.3 million Passat B6 models are sold over the production life cycle, the total saving would be 0.4 million metric tons of CO₂ equivalent. This is equal to the annual CO₂ emissions of a town of approximately 32,000 people.

Further reductions in fuel consumption have been achieved by the introduction of our DSG Direct Shift Gearbox with twin clutch, which combines the advantages of manual and automatic transmissions and is notable for its smooth, uninterrupted power delivery. The centrepieces of this transmission are two electro-hydraulically controlled multi-plate clutches that make for high-efficiency. The intelligent electronic control unit provides fuel savings of up to 10%

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depending on driving style compared with a six-speed manual transmission. So far, more than 500,000 six-speed DSG transmissions have been sold in the Jetta, Passat, Caddy and Eos models. In the second half of 2007, we also brought out an even more efficient seven-speed DSG transmission,¹⁹⁾ which will be available for models ranging from the Polo to the Passat.

Current model range

Thanks to our innovative technologies, we are already able to offer a wide range of fuel-efficient vehicles. By April 2007, the Volkswagen Group was offering 54 different vehicles of the Volkswagen, Audi, Škoda and Seat brands that have CO₂ emissions of less than 140 g per kilometre. In eleven of these vehicles, emissions are actually less than 120 g. Already, therefore, many of our models already meet the target of 140 g CO₂/km laid down in the voluntary agreement between the European Automobile Manufacturers' Association (ACEA) and the EU.

The most fuel-efficient vehicle in the Group's current range is the Volkswagen Polo BlueMotion, which is fitted with a TDI engine and is capable of CO₂ emissions of 99 g/km, depending on driving style. This vehicle, Europe's most economical five-seater, epitomises the innovative capabilities of Volkswagen. The BlueMotion models are in each case the most economical version in a Volkswagen model series. The latest BlueMotion production model to be unveiled was a Passat, and further versions will follow shortly, including a Golf BlueMotion. In the Audi range, the most fuel-efficient vehicles are those with an "e" in their model badge. The "e" versions of the A3 and A4 models are fitted with either TDI or TFSI engines (see Special Report: BlueMotion/e-models).

The Volkswagen Polo BlueMotion, the Golf 1.4 TSI, the Audi A4 2.0 TDI and the Škoda Fabia Combi 1.4 16V have all been awarded the Wuppertal Öko-Trend Institute's Car Environment Certificate. And in its 2006 Automotive Environmental Index, the market research institute J.D. Power identified the Volkswagen brand as the American market's most environmentally friendly automaker.²⁰⁾

Natural gas vehicles

Natural gas-powered vehicles have approximately 20% lower CO₂ emissions than petrol-engined models. We see natural gas technology as a transitional solution which will eventually be superseded when new regenerative fuels and corresponding powertrains are commercialised.

Having initially offered natural gas engines for retrofitting, through our subsidiary IAV, in 2001 we entered the market with a product of our own, the Golf Estate BiFuel, which is capable of running on either natural gas or petrol. Since

- Read more about " Direct Shift Gearbox" at: www.volkswagensustainability.com → Environment → Powertrains → Transmission
- Read more about "BlueMotion and Audi e-models" at: www.volkswagen-sustainability.com -> Environment -> Powertrains -> VW BlueMotion and Audi e-models

2006, our natural gas model range has included a Volkswagen Caddy EcoFuel and a Volkswagen Touran EcoFuel. These are quasi-dedicated monofuel vehicles which are optimised for operation on natural gas but can also run on petrol - though only as a reserve fuel. Operating in natural gas mode, the EcoFuel engine produces 25% less CO₂, 75% less carbon monoxide and 70% less nitrogen oxide emissions than a comparable petrol engine.

According to the German Federal Motor Vehicle Office, the Caddy EcoFuel was Germany's best-selling natural gas vehicle in 2006, with a market share of 20.2%. Its large natural gas tank gives it a range of 570 km. However, more natural gas filling stations are still needed in Germany. Ideally, the distance between filling stations should be no more than 20 km. According to the "Natural Gas as a Fuel" Initiative, Germany will have 1,000 natural gas filling stations by the end of 2007.²¹⁾

LPG is currently better served in terms of supply infrastructure than natural gas, with 2,300 filling stations in Germany. Since August 2006, Volkswagen has been offering an LPG model in the high-volume segment too, an LPG-powered Sharan. The CO₂ emissions of LPG vehicles are up to 15% lower than those of comparable petrol-engined models.

Hybrid vehicles

We regard hybrid technology as a way of extending the capabilities of conventional petrol and diesel engines, particularly in cities and large urban areas. In early 2007, we presented the Touran "Highbrid" prototype, which efficiently combines a TSI engine with electric drive and a direct shift gearbox.



Touran EcoFuel

Read more about "Natural Gas Vehicles" at: www.volkswagensustainability.com → Environment → Powertrains -> Natural Gas Vehicles

The electric motor in a hybrid vehicle can supplement the internal combustion engine, for example when accelerating, or can be used to recover braking energy. Within the next two years, a Volkswagen Touareg equipped with this fuel-saving internal combustion engine/electric drive combination will be ready to go into volume production. This will be followed by a hybrid model in the compact segment.

In our development work, we take into account the fact that hybrid technology lends itself best to the frequent stop/ starts and frequent braking and acceleration encountered in urban driving.²²⁾

Alternative fuels

Synthetic fuels will play an important part in the move towards largely carbon-neutral personal mobility. Our Fuel Strategy is focused on second-generation biofuels which can be derived from biomass in a largely carbon-neutral production process and which do not compete to any significant extent with food production.

Second-generation biofuels include the synthetic fuels SunFuel® and cellulosic ethanol, which are produced from whole plants or from various types of biomass residue such as straw. First-generation biofuels such as biodiesel or bioethanol are mainly produced just from the grain, which means significantly lower hectare yields and thus a lower CO_2 reduction potential and greater competition with food production.

CO₂ reduction potential of different fuels

Second-generation biofuels are on the brink of commercialisation. Blending them with conventional fuels is technologically straightforward and so the benefits in terms of CO₂ reduction start to appear very quickly.

Volkswagen is cooperating closely on fuel development with other vehicle manufacturers and with biotech and oil companies. Shell and Choren are Volkswagen's partners in the development and testing of alternative fuels. For diesel engines, we developed the all-synthetic fuel SunFuel® in cooperation with Choren Industries GmbH. SunFuel® is virtually carbon-neutral, achieving a reduction in greenhouse gas emissions of up to 90%. Choren's first industrial-scale pilot plant went into operation in Freiberg, Saxony, in 2003. A 43-MW plant with a capacity of 15,000 metric tons per annum is now under construction and if the trial phase proves successful, it is planned to build a further five industrialscale plants with a capacity of one million metric tons. In respect of petrol engines, Volkswagen's partners include the Iogen Corporation of Canada, whose process for producing cellulosic ethanol fuel offers a similar CO₂ reduction potential to SunFuel®.

One important advantage of synthetic fuels (synfuels) is

clean, completely sulphur-free and aromatic-free combustion. In a field trial in which the Golf TDI was operated on Shell GTL (gas-to-liquid) fuel, with no alterations to the engine's hard and software, NEDC NO_x emissions were reduced by 6%, particulate emissions by 26%, hydrocarbon emissions by 63% and CO₂ emissions by no less than 91%. With minor modifications to the engine management system, it would be possible to improve this even further. In large metropolises like Bangkok and Athens, Shell GTL blended with diesel has been helping, since 2002 and 2003 respectively, to combat the smog problem.

SUNFUEL® FOLLOWS THE NATURAL CARBON CYCLE



A special case in this connection is ethanol produced from sugar cane, which has been used on a large scale in Brazil since the late seventies. In Brazil the whole sugar cane plant is used in fuel production, giving an excellent CO₂ reduction potential of approximately 90%. Volkswagen was one of the first manufacturers to offer vehicles with ethanol engines in Brazil in the seventies. In March 2003, we were then the first company to introduce TotalFlex technology, which enables vehicles to run on any mix of petrol and alcohol. Due to the advantages these engines have in terms of combining the ability to adapt to the sharp fluctuations in the supply of ethanol with a high standard of performance, this technology achieved over 80% market penetration in Brazil in 2006, and we expect this to rise to almost 100% this year. Brazil is one of the world's largest ethanol producers, accounting for 35% of world production. Nevertheless, at the present time less than 5% of total agricultural land is used for growing sugar cane. More than half this sugar cane is used for sugar production, and only approximately 2% for ethanol production.

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To promote the development and use of synthetic fuels, in March 2006 the Volkswagen Group and other vehicle manufacturers and oil companies founded the Alliance for Synthetic Fuels in Europe (ASFE). We are also taking part, together with the Federal States of Lower Saxony, Brandenburg and Hesse, in three research and development projects on the potential uses of biomass.²³⁾ This involves screening various types of wheat and triticale (a cross between wheat and rye) to assess their suitability for biomass production. At the same time we are also investigating the development of sustainable biomass cultivation systems and are carrying out a practical project on the cultivation of fast-growing tree species. At European level, a 32-member European consortium led by the Volkswagen Group was formed in 2006 to research various biofuel production technologies and to assess their technical, economic and ecological impacts. In this project, which will run until 2008, the consortium is focusing exclusively on production systems based on gasification and subsequent fuel synthesis. The Volkswagen Group is also sponsoring a foundation chair in biofuel development at the Technical University of Braunschweig (see page 58).

Biofuel production must, however, comply with sustainable minimum standards regarding the cultivation and processing of the required crops.²⁴ For example the planting of monocultures should be restricted, and growing conditions in developing and emerging countries should be monitored to protect the rainforests.

Alternative powertrains

Availability of the new synthetic fuels will be an essential requirement for using the next generation of internal combustion engines. From approximately 2015, our Combined Combustion System (CCS) technology, will be able to combine the low emissions of petrol engines with the low fuel consumption of diesel engines. CCS technology running on SunFuel[®] will, we believe, be a key technology for a non-oildependent sustainably mobile society.



The SunFuel® Beetle demonstrates the enormous potential of synthetic fuels

The low fuel consumption and emissions of the CCS system are based on partial homogenisation of the fuel-air mixture. In our work on optimising the fuel and the engine technology, we are able to draw on our extensive experience with diesel and petrol direct injection.

In the long term, we expect a move towards powertrain electrification. This will comprise both hydrogen-powered fuel cell powertrains and electric-only systems. The electricity used in the electrified powertrain could be derived from



 $\mathrm{CO}_{\mathbf{2}}$ reduction potential in % compared with petroleum-based fuel (well-to-wheel)

²³ Read more about "Partnerships" at: www.volkswagen-

sustainability.com -> Environment -> Fuels -> Partnerships

²⁴ Read more about ,, biofuels " at: www.volkswagensustainability.com → Environment → Fuels → Strategy

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virtually any feedstock. Fuel cells and electric drive would allow vehicles to operate emission-free at the point of use, for example in towns and cities. We already introduced a limited-production battery-powered Volkswagen Golf City-STROMer back in 1993, featuring a maximum output of 17.5 kW, a top speed of 100 km/h and a range of 70 to 90 km. Since then, our research and development department has been working systematically to improve the performance of electric vehicles.

Volkswagen has presented a variety of fuel-cell vehicles over recent years. The Bora HyMotion runs on cryogenic hydrogen (liquid hydrogen at a temperature of -253°C) and its fuel cell delivers a maximum output of 30 kW. This can be supplemented by a high-performance NiMH battery to give a maximum driving output of 75 kW. In 2003, the Bora HyPower research vehicle crossed the Simplon Pass in the Alps. This prototype is fuelled by compressed hydrogen and its fuel cell system develops 40 kW. For power boost and regenerative braking, a 60-kW ultra-capacitor system is used.

To advance our development work through external partnerships, we are taking part in the California Fuel Cell Partnership and, since July 2006, in Germany's Clean Energy Partnership (CEP), which is conducting tests of the practicality and system compatibility of hydrogen as a fuel in Berlin.

Our current Touran HyMotion fuel-cell vehicles are being used in both these partnerships. As well as boasting an increased output of 85 kW and competitive performance, these vehicles represent the latest state of the art in the field of low-temperature (LT) fuel cells. The entire drive system is housed in the engine compartment. The 350 bar hydrogen tanks and battery are positioned in such a way that no space has to be sacrificed inside the car. In late 2007, two new prototypes will be presented which will feature an approximately 10% increase in efficiency. The development of a high-temperature (HT) fuel cell in late 2006 marked a significant research breakthrough at Volkswagen. This new development features a phosphoric acid-treated polybenzimidazole membrane serving as an electrolyte. The resulting higher maximum permissible operating temperature of up to 160°C, which is not achievable with the standard low-temperature technology, allows a much less complex cooling system to be fitted and makes it possible to dispense with gas humidification. This makes for a smaller, more efficient and less expensive overall system. The high-temperature fuel cell will probably first be fitted in prototypes from 2009 onwards.

None of the hydrogen vehicles so far developed across the world is sufficiently mature for volume production. On service life and system costs in particular, substantial efforts are still required in order to ensure competitiveness. This is why we are not expecting fuel cell vehicles to be ready for commercial production before 2020. The technology would then probably first be used as a range extender in battery vehicles, with the fuel cell being used for on-board recharging.

It is still unclear what degree of penetration all-battery electric vehicles will achieve. This will depend largely on what advances are made in battery technology. Our researchers are therefore working intensively, in cooperation with industry partners and research institutes, to improve the performance of high-energy batteries. Also, together with Degussa AG and Chemetall GmbH, we are sponsoring a foundation chair at the University of Münster in Germany, which will be start work in 2007 (see page 58).²⁵⁾

Pollutant emissions

To ensure sustainable road-based mobility, it is necessary not just to reduce CO_2 emissions but also to reduce emissions of diesel particulates and nitrogen oxides. This requires, firstly, continuous improvement of our engine technologies, focusing





Read more about "foundation chair" at: www.volkswagensustainability.com -> Environment -> Powertrains -> Hybrid Vehicles

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particularly on optimised combustion processes. Secondly, it also requires the use of downstream emission control systems.

Throughout the Group, we offer diesel particulate filters either as standard or optional equipment for almost all new TDI-engined vehicles. These filters have been long-term-tested and in all cases are specially developed and matched to the requirements of the individual vehicle and its engine. For older vehicles, we also offer a wide range of retrofit solutions.

In the US, the Volkswagen and Audi brands have launched the BLUETEC initiative, in association with Mercedes-Benz. The aim of the partnership is to establish the BLUETEC label as a badge for clean and fuel-efficient diesel cars and in particular to significantly reduce nitrogen oxide emissions. Our diesel engines will in future meet the strict US emissions standards and in terms of fuel economy will offer an alternative to hybrid drive.

In conjunction with BLUETEC, our "Clean TDI" concept combines a diesel engine with NO_x aftertreatment, reducing nitrogen oxide emissions by up to 90%. The first such model to be introduced will be the Jetta Clean TDI in 2008.

The NO_x reduction technologies will comprise an NO_x adsorber catalyst or, for larger models, an SCR (Selective Catalytic Reduction) catalyst. The SCR catalyst injects a variable amount of urea into the exhaust gas. On entering the hot exhaust stream, the urea is converted into ammonia, which then reduces the nitrogen oxides into nitrogen and water. NO_x adsorber catalysts are dependent on the availability of extremely low-sulphur fuel, due to be introduced in the US in autumn 2007.²⁶⁾

Traffic noise

A further important goal of the Volkswagen Group is to reduce traffic noise. Research work on this topic is carried out at the Wolfsburg Acoustics Centre. Our aim is to make refinements to the powertrain, comprising the engine, transmission, drive shafts, air intake system and exhaust system, and also in the area of tyre/road noise. The latter is an especially important focus, given that this noise source now accounts for 90% of total road traffic noise. The powertrain components meanwhile have already become much quieter, due to the use of technologies such as innovative engine management, better silencers and engine compartment encapsulation. Since 1980, we have reduced the average noise emissions of our new vehicles by 8 dB (A), which is equivalent to an 84% reduction in sound energy.

Noise emissions are a prime concern when selecting original-equipment tyres. The Volkswagen brand therefore uses products which take their lead from the German Blue Angel eco-label system. And Audi only fits tyres after first carrying out an in-house test procedure which is considerably more exacting than the legal requirements. The Fuel-Saver courses offered by Volkswagen in association with the German Society for Nature Conservation (NABU – see page 57f.) likewise help to reduce traffic noise. Fuel-saving, low-rev driving is quieter driving – which goes to show that driver behaviour too plays an important part in reducing traffic noise.²⁷⁾

Production-Related Environmental Protection

The Volkswagen Group takes an integrated approach to environmental protection in which not only the environmental impacts of its products are considered, evaluated and minimised, but also those of its production and logistics processes. A systematic continuous improvement process is implemented across all production sectors.

Environmentally compatible production starts with product development, since decisions taken at this stage – for example on design and choice of materials – also influence the environmental impact of subsequent production and recycling processes.

To meet our process-oriented environmental protection goals, we depend heavily on employee involvement. Environmental Officers coordinate environmental protection measures at the individual plants while at all German plants, every department which operates facilities and equipment with potential environmental impacts also has its own specially trained environmental specialist on hand to act as the point of contact in all environment-related matters. The environmental specialists help to create a stronger link between the machine operators and the Environmental Officers.

Training to promote factory-wide awareness of processoriented environmental protection issues includes training programmes at the Environment Service Centre for our trainees and apprentices and continuing professional development courses for our other employees. In 2007, the internal Volkswagen Environmental Award was presented for the fourth time. The Award was created as a joint initiative of the company and the Works Council, and its purpose is to commend and reward employees who take a proactive approach to environmental protection in their own particular sector. At the practical level, our process-oriented environmental protection work focuses on water and wastewater, air, energy and waste.

Water and wastewater

Production processes in the automotive industry consume large quantities of freshwater. To conserve valuable drinking water resources, all our plants have therefore been fitted with state-of-the-art technologies designed to significantly reduce water consumption. We invest heavily in this area, focusing particularly on the widespread use of closed-loop systems and the use of rainwater and process water.

A broad-based programme of measures has had the effect of reducing the amount of water the Group needs to build one vehicle from 6.9 m^3 in 2002 to 5.5 m^3 in 2006.

In 2006, amongst other measures, Audi completed construction of a new stormwater retention basin at its Ingolstadt plant. This basin has a capacity of 2,900 m³, and brings the total number of stormwater basins at the site to five, and their total capacity to more than 13,000 m³. The water is treated and fed into the process water system.

Wastewater contamination is minimised by using efficient treatment processes. However, the complexity of the water management systems in operation at our sites is increasing. We use a substance flow management system for wastewater to provide significantly enhanced transparency and offer further improvement opportunities for coordination of recycling processes and treatment technologies between the various production facilities within a plant. This also allows us to gear planning processes even more closely to economic and ecological considerations, with particular reference to minimising pollution, closed-loop water systems and recycling of process materials.



Stormwater retention basin at the Wolfsburg plant

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In 2006, wastewater substance flow management at our Wolfsburg site resulted in enhanced wastewater treatment and a 20% reduction in wastewater pollution (measured by chemical oxygen demand). We achieved this partly through use of a special reactor that selectively treats a specific wastewater substream and partly through optimisation of the biological treatment process.

One of the most water-intensive production processes of all is painting. In 2006, the paintshop at our Volkswagen plant in Bratislava, Slovakia, went over to an improved system for the use of rinsing agents in its process baths. The rinsing agents can now be recycled, resulting in a 95% reduction in rinsing agent consumption. We have achieved similar reductions at other sites too.²⁸⁾

Air

One of the key types of air pollutant produced by the automotive industry is volatile organic compounds (VOCs). These compounds are chiefly released by the solvents used in painting and coating operations. While the increase in total vehicle output in 2006 resulted in a slight rise in the absolute VOC emissions of the Group, specific emissions per vehicle declined from 3.24 kg in 2005 to 3.14 kg.

The degreasing, phosphating, priming and undersealing processes which precede painting, and the cavity sealing process which follows, have been solvent-free throughout the Volkswagen Group since the early nineties. At many sites, the entire painting process now involves a very low level of solvents, due to the use of water-based paints. Development teams at Audi and Volkswagen are also looking into the technical feasibility of further improvements such as the use of special ultraviolet-curable clear coats. This would allow the proportion of solvents to be reduced even further.²⁹⁾

Energy

Energy consumption and the associated CO_2 emissions are an important issue in the life cycle of the product not just during the service life of the vehicle but also at the production stage. Life Cycle Assessments reveal that the productionrelated energy consumption for a Passat BlueMotion, for example, accounts for approximately 22% of total primary energy consumption over the vehicle life cycle, assuming a service life of 150,000 km. We therefore take the energy that will be consumed in the production process into account right from the planning and procurement stage. We also carry out energy consumption spot-checks on our production equipment and have established an operational energy management system.

An important focus of our energy activities is in-house

²⁹ Read more about "Clean Air" at: www.volkswagen-sustainability.com → Environment → In-Process Environmental Protections → Clean Air



Volkswagen power station in Wolfsburg

power generation by VW Kraftwerk GmbH, which operates a number of power stations at various Group sites. VW Kraftwerk's environmental policy is focused on efficient energy production and innovative environmental protection. To this end it uses combined heat and power technology, which is currently the most efficient way, both technically and ecologically, of using fuel. At the Wolfsburg plant, VW Kraftwerk uses a CHPR system which adds another stage to the process, namely refrigeration. Condensation and evaporation processes are used to transform surplus heat in summer into cooling, resulting in even more efficient energy utilisation. This highly efficient form of energy supply is also used by AUDI AG at its Ingolstadt plant.

240 Energy Officers throughout the Group have the task of helping to cut down on avoidable energy consumption, for example unnecessary use of lighting and air-conditioning systems. Between 2005 and 2006, the Energy Officers were able to bring about energy savings of 4.9 million kWh of electricity on the Wolfsburg plant assembly lines alone.

In April 2004, the Group began to carry out internal energy audits. Standardised criteria are applied to the procedures and practices of the different organisational units, improvement opportunities are highlighted and best practice examples are identified and shared.

Waste

We are also committed to continuous improvement in the waste management sector. We are aiming to further reduce residual waste and the potential hazards presented by waste throughout the Group.

In 2003, the foundry at the Anchieta plant in Brazil was shut down and in 2006 the building was demolished. This was preceded by detailed soil and groundwater surveys.

²⁸ Read more about "Freshwater and Wastewater" at: www.volkswagensustainability.com → Environment → In-Process Environmental Protections → Freshwater and Wastewater

15,000 metric tons of concrete were salvaged during the demolition process, and following the removal of industrial waste were processed in an advanced recycling system. The resulting material was then reused in appropriate construction projects. This solution provided an environmentally friendly alternative to landfilling the rubble, and also helped to cut costs.

In 2006, the "environmental team" initiative launched in Wolfsburg over ten years ago for the first time processed more than 1,000 metric tons of packaging waste, up from 932 metric tons the previous year. Cardboard packaging, plastic and Nopa foam were collected, cleaned and sold to internal and external suppliers. The plastics were classified, sorted and recycled in a new automated sorting facility specially designed and co-developed for Volkswagen by the Braunschweig/Wolfenbüttel University of Applied Sciences.

Significant progress on the waste management front was also made by our Volkswagen plant in Martin, Slovakia. In 2006, this plant increased the proportion of waste recycled into secondary raw materials to as much as 84%. This success was achieved through the use of new technical systems, employee training measures and ideas management programmes.

Since late 2006, in a joint project with the University of São Paulo, the Volkswagen plant in São Carlos, Brazil, has been developing a composting process for solid, biologically degradable waste. The aim is for waste composting to reduce total annual waste volumes by 70 metric tons, thereby helping to conserve local landfill space.

In association with Eco-Care B.V. and Ticona GmbH, Volkswagen is recycling the production waste from the manufacture of instrument panels for the Golf and Golf Plus using a process which, in 2006, won an award from the German Federation of Reinforced Plastics (AVK e.V.). The cut and granulated production waste is refined to a high standard of purity and recycled into Celestran[®] pellets. The pellets are then added to the raw material used in the manufacture of instrument panels for the Golf and Golf Plus.

Soil contamination

Sometimes, in the course of new construction or rebuilding of production facilities at existing sites, or when developing new production sites, soil contamination may unexpectedly come to light. If a risk assessment reveals that the contamination poses a hazard, remediation and rehabilitation measures are developed and implemented in accordance with environmental legislation or the official guidelines. For example, in 2005 a new and innovative remediation technique, which involved introducing a chemical reagent into the ground, was used to remove contamination discovered at our Brussels site.

Logistics

Due to its energy consumption and emissions, as well as the waste it generates, logistics is a sector with significant environmental impacts. We are therefore seeking to bring about a significant shift in transport from road to rail and ship. However, bearing in mind that approximately 500 trucks and 150 loaded rail wagons arrive at the Wolfsburg plant every day, this project calls for extensive logistical restructuring.

A whole series of projects aimed at shifting transport from road to rail are under way at the present time, for example at SEAT in Spain. The SEAT projects relate, for example, to transportation of new vehicles from the Martorell plant to the port of Barcelona, and transport of metal and components between Zona Franca and Martorell. We expect both projects to bring annual savings of around 750 metric tons of CO_2 .

In 2006, we further optimised the empty container supply system for the universal containers used in our Group-wide European logistics operations. Using specially developed batch optimisation software, we were able to reduce the average distances travelled by empty containers.

As far as in-house logistics is concerned, hundreds of thousands of goods movements are controlled and coordinated every day along the pathways from incoming goods to the assembly locations. In 2006 we introduced an automatic transport control system which helps us improve the efficiency and effectiveness of these multi-stage journeys from incoming goods to stock location. In March 2007, this inhouse Transport Logistics System (iTLS) received the Logistics Innovation Award of the Association of German Engineers (VDI).



Cars being transported by rail at SEAT in Spain

At Volkswagen and Audi, logistics processes are taken into account from the vehicle development stage. This means that when new models are developed, it is also possible to consider new solutions in, for example, container reuse, packaging technology, outsourcing volumes or component geometry. This offers further ways of minimising the environmental impact of our transport operations.

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DRÖMLING-BARNBRUCH BIOTOPE LINK - ONE NATURE CONSERVATION PROGRAMME AMONG MANY



Natura 2000 areas Restoration of the Aller valley Revitalisation of the Aller Volkswagen plant

Across the Group, we are successfully reducing the quantity of materials transported relative to the number of vehicles produced. While vehicle production increased by 11.1% between 2004 and 2006, the absolute quantity of material transported increased by only 5.1%.

The coatings applied to new vehicles to protect them during transportation are a further source of environmental impact. In the past, exposed paint surfaces were frequently protected by applying a solvent-based wax. The subsequent dewaxing, too, was carried out using solvent-based materials. The Volkswagen Group has now decided to phase out wax preservation by the end of 2007 and replace it by use of a protective adhesive film or transport covers (in some cases reusable).

Nature conservation

One of the first environmental impacts of constructing an industrial plant is land consumption. Sometimes, therefore, construction work must be offset by nature conservation projects. One current example is our joint project with the City of Wolfsburg for the restoration of the Aller valley. The aim is to link the Barnbruch and Drömling nature reserves, which are situated to the west and east of our plant respectively. This will create 100 ha of floodplain biotopes and habitats for numerous rare plant and animal species right on the Volkswagen plant's doorstep. The Volkswagen Group is involved in nature conservation projects not just in Germany but at almost all its plants worldwide. In Brazil, Volkswagen Commercial Vehicles is involved on a voluntary basis in an afforestation project to create coastal forest on the Atlantic seaboard. In 2006, Volkswagen Trucks & Buses Brazil, the SOS-Mata Atlântica NGO and a number of towns in the state of Rio de Janeiro joined forces to plant 200,000 trees. These are to be followed by a further 200,000 in 2007. For every truck with an electronic engine management system sold, Volkswagen has ten trees planted.³⁰

Employees

At the end of 2006 the Volkswagen Group employed a global workforce of just under 325,000 employees. It is to them we owe our success, since the qualifications and personal commitment of all our employees represents a crucial competitive advantage, particularly in such a high-tech sector as the automotive industry. In order to maintain our position against the international competition, we shape our entire workforce into an elite team marked by a high degree of expertise, above-average commitment and physical fitness. These qualities are prerequisites for high achievement in the professional environment and ultimately guarantee the success of the Group. We see it as a major part of our responsibility to foster the motivation and long-term employability of our employees.

The Volkswagen Group traditionally regards itself as a company with a cooperative style of leadership and one which takes a special responsibility for its employees. Lifelong learning, job security, equal opportunities and comprehensive health management are all key aspects of our commitment to our employees.

Education and training

In order to maintain its leading international position in the years ahead, the Volkswagen Group must not only continually invest in new processes, machines and products, but also to the same extent in the development of its employees. Fostering young talent is an essential part of any sustainable corporate policy. By applying different training methods to give young people the expertise necessary for a role in our Group, we are also safeguarding our own competitiveness in the long term. At the same time, our aim is to gear our training as closely as possible to the practical realities of the workplace and to integrate young employees as early as possible into business and work processes. At year-end 2006, a total of 9,199 young people were being trained across the Group.

By 2009, at Volkswagen AG in Germany alone, we will have taken on 1,250 new apprentices and trainees, including students on the StiP integrated degree and training scheme. Furthermore, the Group has set aside \in 600,000 to create up to 80 additional training places over the next two years for disadvantaged young people in small and medium-sized businesses in Germany.³¹⁾

The new "Wanderjahre" programme (the name refers to the traditional practice of newly qualified craftsmen travelling the world, acquiring experience) promotes the posting of trained personnel to positions in other countries. On completion of their initial training – and with the support of additional training and language courses – employees in Germany are offered an opportunity to take up jobs at Volkswagen locations abroad. In addition, qualified staff from selected foreign locations are also given the opportunity to work abroad and gain new experience.

We provide young graduates with a range of opportunities to join our Group, of which the Student Talent Bank is just one example. This project fosters students who have completed a minimum three-month internship at Volkswagen and who have demonstrated particular talent in both the specialist and social fields. Proposed by a specialist department and chosen by a selection process, these students receive additional specialist and interdisciplinary support as well as personal mentoring throughout their studies.

Those wishing to combine training and study can do so by applying for the StiP practical study scheme. This combines university degree courses within the catchment area of a Volkswagen plant with vocational training at that plant. Degree courses cover fields such as Mechanical Engineering, Economics, Logistics Management, Materials Management and Technical Sales. This highly successful integrated degree and training scheme celebrated its 10th anniversary in 2006. Volkswagen now plans to expand the StiP scheme,



CRITERIA FOR AN ELITE TEAM

³¹ Read more about "Training" at: www.volkswagen-sustainability.com -> Employees -> Vocational Training GROUP | CHALLENGES

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Volkswagen Group apprentices

in the context of which the company has entered into agreements with technical colleges and universities.

University graduates join Volkswagen as part of the "Startup" programme. This lasts 24 months and provides young graduates with optimum preparation for their role in the company. Key elements of the programme that create the ideal circumstances for a professional career start at Volkswagen include interdisciplinary seminars, international projects and support through the mentoring programme.

At Volkswagen, Ph.D. students receive comprehensive support in the form of individualised programmes. The Volkswagen brand, for example, has an internal network and forum for Ph.D. students, which in cooperation with the Volkswagen AutoUni provides a platform for academic exchanges, seminars and project presentations for all departments, as well as for Research Days. The aim behind this systematic promotion and support for Ph.D. students at Volkswagen is ultimately to generate new ideas and specialist knowledge that will eventually lead to innovations in processes and products at the Group.

Our Group-wide educational institution AutoUni combines state-of-the-art academic teaching from international universities with the comprehensive practical knowledge of a globally active Group. Its activities are aimed principally at the Group's expert employees and executives (see page 58).

Human resources development

The raft of our human resources development initiatives includes specialist seminars in automotive and automation technology, IT, quality management, productivity, supervisor development programmes for the Volkswagen passenger car brand and crossfunctional training in topics such as self-management and communication. Training courses in management development feature seminars on leadership and management skills and international development programmes.

Human resources development initiatives at Volkswagen are organised by Volkswagen Coaching GmbH, Audi Akademie and Volkswagen Bildungsinstitut GmbH. The major provider is Volkswagen Coaching GmbH. Training Volkswagen employees has been in the safe and responsible hands of Volkswagen Coaching GmbH for over ten years now. The company's core competencies include vocational training, continuing professional development, executive development and management consulting. Volkswagen Coaching is one of the major providers of vocational training and continuing professional development in Germany, both for the Volkswagen Group and in the open market. In 2006, Volkswagen Coaching organised 3,600 training courses on Volkswagen's behalf, with approximately 42,500 participants. The portfolio for continuing professional development alone extends to 1,300 courses.

In 2006, approximately 211,600 Group employees took part in training measures, of which 126,300 were directly involved in production and 85,300 from other departments. Overall this was equivalent to a quota of around two training days for every Group employee.

Safeguarding jobs

Only successful companies can create jobs. That means that Volkswagen's competitiveness lies at the root of safeguarding jobs.

Planned restructuring measures were implemented at Volkswagen AG's six traditional plants (Wolfsburg, Braunschweig, Salzgitter, Kassel, Hanover and Emden). The collective wage agreement reached in October 2006 was another important step towards bringing productivity, capacity utilisation and labour costs to a competitive level again. At the core of this agreement is an increase of working hours to up to 33 hours per week for production employees and up to 34 hours per week for the remaining personnel, i.e. indirect labour. In addition, a 35-hour working week can be fixed by adding two paid hours or one paid hour respectively (without bonuses) and with no direct compensatory pay increase. Production volumes were set for each location in order to secure capacity utilisation, and thus employment.

The collective wage agreement also contains a new model for employee profit-sharing. In future, the amounts distributed to employees may – depending on reported profit – be substantially greater than in previous years. This model serves as partial compensation for the unpaid increase in working hours. In addition, the collective wage agreement includes a one-off payment into the company pension scheme for employees.

Personnel adjustment measurements were also taken in 2006. In accordance with the principle whereby the assent of both parties is required, all employees covered by the collective wage agreement will have the option of leaving the company on the basis of termination agreements. However, the approval of the relevant department was required before such agreements could be signed. By December 31, 2006, a

total of 5,937 employees had signed a termination agreement. The majority of these employees found a new position outside the Group, went into business on their own, or commenced training or studies. Prior to the employees affected making such decisions, Volkswagen ensured they were involved in extensive discussions and given numerous offers of support and advice about starting a new career.

In 2006, as well as offering severance payments, we extended the opportunities to participate in the part-time scheme for employees near to retirement (Altersteilzeit) to include those born between 1952 and 1954. In addition, we had increased the length of this part-time scheme to up to seven years at the end of 2005. In 2006, 2,013 employees entered the passive phase of their early retirement. A total of 6,189 employees born between 1952 and 1954 have already signed binding early retirement agreements under this scheme. These employees will leave the company by 2013 and begin the passive stage of their early retirement.

At our locations outside Germany, too, we implemented restructuring programmes with a view to improving competitiveness.³²⁾ All measures across the Group are in line with the respective collective wage agreements. In all, 97% of employees of the Volkswagen Group were working on the basis of collective wage agreements in 2006.

Furthermore, the instrument known as "PersonalEinsatz Betrieb-Beschäftigungssicherung" (PEB-B) – effectively an internal job agency that brings jobs and employees together – facilitates a much more flexible approach to employing staff. It works like a human resources clearing house, balancing out personnel surpluses and deficits in different fields of activity.

Safety at work

Safety in the workplace and comprehensive health management are given high priority at Volkswagen AG. Over the last 25 years the number of occupational accidents has consistently fallen at all our locations worldwide. In 2006, our figure of 4.5 accidents per million hours worked was below the industry average. Special mention should be made of AUDI AG, whose 3.3 accidents per million hours worked in 2006 represent the company's best ever figures.

On the other hand, the number of working days lost per accident rose slightly across the Group – an increase we aim to combat by putting in place additional measures. We adopt a particularly committed approach at our locations in newly industrialising countries, where occupational safety is traditionally given lower priority. We also involve our suppliers in this commitment (see page 30).

Since 2005 we have been extending the Group's internal occupational safety competition to include all European

locations. Prizes are awarded in each case to the best plant and best organisational unit at manufacturing locations.

The purpose of our "Self-Assuredly Safe" programme is to motivate the workforce to adopt a more conscious and responsible approach to dealing with potential hazards at work. Almost one third of our employees have so far taken part in this initiative.

Protecting health

Thanks to our comprehensive health management programmes, health standards at our plants are higher than average. At 97.2%, the global figure for production plants in 2006 matched the high level of the previous year.

These standards are achieved by offering employees various preventive and early recognition check-ups, health promotion programmes and individual health coaching. From 2007 at all German Volkswagen locations – and from 2008 worldwide – we will be introducing a general health check for all employees as a way of systematising, standardising and extending previously existing programmes.

In addition, Volkswagen provides comprehensive rehabilitation measures, such as the Work2Work programme, which gives those affected at the Wolfsburg plant, for example, the opportunity to undertake regular individual rehabilitation training.

In terms of health standards for 2006, AUDI AG achieved its best ever figures for its Ingolstadt and Neckarsulm plants. A major factor in this result were comprehensive reintegration programmes, interesting work and a good atmosphere in the workplace. The "Attendance and Health" programme launched in 2002 also proved its worth, the original aim being to increase attendance levels and maintain and promote levels of health and fitness.

A key part of our commitment to our Uitenhage location in South Africa is in combating HIV and AIDS. To this end, since 2001 Volkswagen South Africa has been cooperating with the GTZ in a public-private partnership. In 2004, the Professional Management Review Africa presented Volkswagen with the Corporate Care Award for its anti-HIV/AIDS programme, and in 2005 the company received an award from the Global Business Coalition on HIV/AIDS. The anti-AIDS/HIV project comprises systematic risk management. This includes, for example, information events and the provision of medicines for our employees. By providing training for local doctors and organising awareness campaigns for schools, the project also reaches neighbouring communities. We also call upon our partners and suppliers in South Africa to set up prevention programmes of their own.

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Performance incentives

Volkswagen deploys a variety of instruments to enable employees to share in the success of the company and to reward outstanding performance. One example of this is the Group company Auto 5000 GmbH, where elements of performanceand profit-related pay have been fixed by collective wage agreements. Every employee at the company receives a share of profits and – as part of an individual performance bonus – anything between 60% and 140% of a predetermined bonus.

At Škoda's production facilities in the Czech Republic an average of 13.2% of gross wages is performance-based. Possible bonuses there are made up of two components. The factors that carry most weight for individual incentive bonuses include quality of work, ability to work with colleagues and the flexibility and efficiency of the individual employee. In addition, for those employees whose places of work have already introduced the Škoda Production System, targets have been agreed for team results in respect of key indicators such as productivity, quality and operational efficiency.

Equal opportunities and diversity

Varying cultural conditions in the global markets and an increasingly dynamic economic backdrop call for great flexibility from modern businesses. So it is essential that companies fully exploit the opportunities and innovation potential that can derive from the wide-ranging backgrounds of their employees. One key prerequisite here, however, is a corporate climate in which all employees enjoy equal opportunities. The Volkswagen Group has a long tradition of respecting its employees and providing targeted support for socially disadvantaged groups.

Showing respect in dealings with colleagues is anchored in our Group Values. In addition, our Social Charter,³³⁾ which is based on the ILO's Core Labour Standards, and our Company Agreement on Partnership-based Conduct at the Workplace also establish rules of fair conduct (see page 31). In the field of diversity management, Volkswagen Bank is one of Germany's leading companies. In 2006, the Volkswagen Bank received another award, the Max Spohr Management Prize, in recognition of the way its diversity concept has been firmly embedded in its corporate culture. In a wide variety of events, bank employees are encouraged to adopt a conscious attitude marked by mutual respect for individual differences. In order to foster and exploit diversity even more effectively, there are also plans to expand this culture of esteem and acceptance of differences to include financial services companies outside Germany. A common concept will be designed to integrate and root a fundamental awareness of all aspects of diversity within the corporate philosophy worldwide.34)

In the late 1980s Volkswagen was the first – and for a long time the only – major company in Germany to establish and implement a Group-wide guideline for the advancement of women. Today, we have many programmes that are specifically set up to advance the recruitment and professional development of women.

Work-life balance

The Volkswagen Group offers its employees many opportunities to combine professional and family life. We offer various part-time and shift-work models in both the production and service sectors. Parents have the possibility of taking up to eight years' leave to bring up their children, with a guarantee of re-employment. For those returning to their careers we offer a seminar on the topic of "family management and work" to offer practical tips and help motivate employees to return to professional life. Realising, however, that employees without children also have their own ideas of the ideal balance between professional and private life, for some years now we have been offering all employees creative employment solutions with flexible, individual working time models.³⁵)

Read more about "Social Charta" at: www.volkswagen-
sustainability.com → Strategy and Management → Group Standards35 Read m
sustain.

³⁴ Read more about "Diversity" at: www.volkswagensustainability.com → Employees → Equal Opportunities → Diversity ³⁵ Read more about "Work-Life Balance" at: www.volkswagensustainability.com → Employees → Work-Life Balance

Team Joachim Franz – committed to combating AIDS

The "aids awareness expeditions" organised by Joachim Franz and his team of partners have developed into something of a leading brand in the international fight against HIV/AIDS. They prove just how effective and successful the combination of voluntary commitment and the social engagement of a global enterprise can be.

Joachim Franz and his team of cyclists clocked up 23,000 kilometres on two wheels in just 35 days between August 12 and September 19, 2005. Taking two-hour turns in the saddle, they rode from the Arctic coast of Alaska across the entire continent of North and South America to its southernmost tip, setting a new world record time for cycling the world's longest road, the "Panamericana". And when the longest "aids awareness expedition" to date reached its destination, at the point where the rocky tip of Tierra del Fuego disappears into the endless ocean, the cyclists and their accompanying convoy were finally able to throw their arms around one another in celebration. Having overcome every obstacle they had been set, the 25 men and women could at last let out their emotions. For what they had achieved was something even greater than the sporting challenge - they had raised awareness of their cause and in the process forged some valuable new links.



Joachim Franz – giving his all for a good cause

The Volkswagen Group was once again an active supporter of this fourth "aids awareness expedition". Volkswagen Commercial Vehicles provided seven vehicles for the team to use as mobile accommodation and media headquarters. The close working relationship between Joachim Franz and Volkswagen did not come about by chance. In fact, it seemed almost inevitable that the personal career of a dedicated individualist would sooner or later become intertwined with the commitment of a global company to take its social responsibilities seriously.

Extreme sports fanatic Joachim Franz organises spectacular events and activities to give the necessary high profile to his fight against the HIV virus. Franz and his fellow campaigners have not only spread the message of caring and awareness through the entire continent of America, they have taken it with bicycles and running shoes through the Sahara and South Africa, across eastern Europe and central Asia, and even into the death zone on the highest summits of the Andes and Tien Shan mountains. And with the number of new HIV infections once again on the rise in central Europe, last summer they traced an imaginary AIDS ribbon across the whole of Germany – their first expedition on home territory and sixth in all – accompanied by a convoy of Volkswagen commercial vehicles, co-organised by the Volkswagen dealerships under the patronage of Germany's Chancellor Angela Merkel.

Joachim Franz is from a typical Volkswagen family. His grandfather worked for Volkswagen, his father worked for Volkswagen and now he, too, is at Volkswagen. Now aged 46, he set out on a tool-making apprenticeship in 1978 and seemed destined initially for a conventional career as a plant operative. And yet early on something marked him out from his colleagues: Joachim Franz was evidently a man born for extremes. In 1990 he weighed 120 kilograms and was a heavy smoker. Then came the radical change. He turned his lifestyle on its head, turned fat into muscle and took up extreme sports – a journey that has taken him from marathon and Ironman triathlon to the Raid Gauloises, the world's toughest adventure race.

But the endurance sportsman only discovered his real mission in life out on the road, on the fringes of the competitive events he was taking part in: in HIV-plagued South Africa, in the death houses of Manila and in the hostels of the Maiti aid organisation in Nepal, where former forced prostitutes now infected with AIDS are cared for. Then, after the death of one of his friends from the insidious virus, Joachim Franz knew he could no longer carry on pretending the disease was no concern of his. "I felt we all had to do something. Every one of us!"

Volkswagen has been sponsoring the qualified toolmaker in his various projects since 1997. A few years ago Franz left that specialist department to take up a new job in health communications with the Group's healthcare department. He now gives talks and organises seminars, is considered an expert in motivation and team spirit and, unsurprisingly, he is also Volkswagen's "health ambassador" in matters of HIV/AIDS.

He has found plenty of people willing to help, volunteers who are prepared to give up their time for free in aid of the cause. People from all over the world, from all walks of life and social strata, are involved in the preparation, organisation and mounting of the expeditions – they are the people who

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Back-up from Volkswagen Commercial Vehicles

give Team Joachim Franz its heart and soul. Included among them are many Volkswagen Group employees, who freely give of their leisure time to attend meetings and fund-raising events.

HIV/AIDS represents one of the greatest global threats to which each year millions of people fall victim. Volkswagen is directly affected by this threat, in particular at locations such as South Africa and Brazil. Management has responded by introducing programmes aimed at prevention, medical support and reintegration (see page 52f.). And yet a company such as Volkswagen neither intends nor ought to limit itself to helping just its own employees. In this respect, too, global players carry a special global social responsibility. And this is precisely where the social interests of commercial enterprise coincide with the ideas and energy of Joachim Franz.

The concept of the "aids awareness expeditions" rests on several pillars. First and foremost, the aim of the events which are often as extreme as they are spectacular - is to use the media to reach out to a broad public. Only if this can be achieved on a grand scale will the fight against AIDS benefit sufficiently from public donations. At the same time, however, the expeditions serve to forge direct links with people and organisations involved in combating the spread of AIDS, and thereby initiate an exchange of information about approaches and concepts, creating as it does so the most tightly-knit network possible. Ultimately, however, the aim is to develop the individual pieces of this jigsaw into concrete and practical projects. Top priority is given to supporting both new and existing initiatives, since as Joachim Franz puts it: "I'm not out to make just a short-term impact; my goal is to build platforms for the future."

In these efforts, the combination of individual and corporate enterprise is something both parties can be proud of. The privately initiated Team Joachim Franz makes things happen in a way the Volkswagen Group is not able to do, and at the same time the team depends on the support of the company. Past achievements prove the value of this cooperation. And because it is a long-term partnership, together they can create not only robust AIDS projects, but also an

enduring social profile for the brand – and sustainability is embossed on both sides of the coin.

Networking is one of the most crucial aspects of Joachim Franz's approach. He works tirelessly to expand his network, targeting everyone from the "man in the street" to giant institutions. And they respond to his appeal, since it is hard not to want to be involved, given the continuity and serious nature of his team's work. Among his numerous contacts, for example, he lists the United Nations and its specialist forum UNAIDS, probably the most important international tool in the fight against acquired immuno-deficiency syndrome. Since the early years of his campaigning, Joachim Franz has had dealings with the United Nations Programme on HIV/AIDS, but since the start of this year the man from Wolfsburg has had official authorisation from Geneva to carry the UNAIDS flag.

It would be easy for Joachim Franz to sit back and be content with what he has achieved. But his commitment drives him on: "I'll carry on for as long as this disease exists," he says.

The next major challenge for Team Joachim Franz is planned for autumn 2008. For the "7th aids awareness expedition" six runners aim to complete a route from the North Cape in Norway across Europe and Africa to the Cape of Good Hope – 17,000 kilometres in just 75 days! And once again Volkswagen will be with them every step of the way, providing not only emotional encouragement, but also vehicles, logistics and practical support.



Never alone Joachim Franz, commissioned by the UN, sponsored by Volkswagen

Society and Dialogue

Social commitment has become a key image and success factor in the business sector. Global companies play an important role in the economies of the locations where they are active and enjoy considerable freedom, which they must use for the benefit of society. The Volkswagen Group has shouldered this challenge. At our sites throughout the world, we assume responsibility and play an active role in improving living conditions for the local people. The main focuses of this commitment are on supporting music and sport, nature conservation and providing general assistance to those in need. In the future, we intend to give our commitment a more pronounced strategic orientation, improve internal networking in this respect and integrate this approach in our management structures. Already, we are engaged in a wide variety of activities. On the following pages we present a number of selected examples to illustrate the breadth of our commitment.³⁶⁾

Sound Foundation: a head start for young pop musicians Last year, a new Internet portal was launched, celebrating the ten-year success story of the Volkswagen Sound Foundation. The Foundation, established in 1997, provides support for talented young bands from Germany at the start of their career. In close cooperation with music experts, we finance marketing activities for the space of twelve months, providing tour buses and organising events and press contacts. Musicians who have benefited to date include such familiar names on the German pop scene as Smudo and Sportfreunde Stiller. Since September 2006, newcomers not yet included in the programme have also been able to present their photos and songs on a purpose-built website. To date, some 600 bands have made use of this opportunity. The website has been very well received by users, too. After only a very short time we were already registering some 15,000 hits per day. In 2006, we also launched "THE BEST in music", a monthly competition for young musicians.

Encounters

Volkswagen is supporting "Encounters – An Alliance for Children" a project initiated by German rock musician Peter Maffay under the patronage of German Chancellor Angela Merkel and with the official support of Nobel Peace Prize winners Desmond Tutu and Shimon Peres. Maffay intends to establish an international network to support children in need all over the world. Last year, he recorded a CD together with 14 musicians from different countries, all of whom are already involved in aid projects in their home countries. The CD reached the top ten of the German album charts. A joint tour has been organised for 2007. Volkswagen is providing a comprehensive fleet of vehicles for the project and is also organising promotional and marketing activities.



Peter Maffay with the other musicians involved in his project "Encounters – An Alliance for Children"

Committed employees

At all Volkswagen facilities, there is a long tradition of social commitment, initiated by the works council. In close cooperation with Volkswagen AG Human Resources and Social Affairs, donations from employees are assigned to social projects. Examples include the "One hour for the future" campaign and the aid project for Tsunami victims "New Hope after the Tsunami" organised in cooperation with children's charity terre des homes. Volkswagen employees participating in the "One hour for the future" campaign donate their wages for one hour's work or the "small change" on their salary statement every month to help street children. Since the campaign was launched in 1998, the worldwide workforce of the Volkswagen Group has donated in excess of € 7.6 million.

A donation of \leq 1.8 million has given children on the coast of the Indian state of Andhra Pradesh "New Hope after the Tsunami". Over a period of five years, the money is to help rebuild the education infrastructure, improving the children's future prospects. 24 villages in Andhra Pradesh are being supported by terre des homes and local partner organisations.

In 2007, Volkswagen launched the pilot project "pro Ehrenamt" (in favour of volunteering). This offers volunteer roles to employees, some of whom have already taken up the offer. We see the project as a kind of clearing house that makes it easier for employees to find their way towards social commitment. More than 130 volunteer "job profiles" have already been drawn up in cooperation with over 100 charities.

Water pumps combat rural exodus

In a project launched in cooperation with the misereor charity, Volkswagen is supporting the installation of manually operated groundwater pumps in an arid area in the northeast of Brazil. The sparsely populated area of about 900,000 square kilometres is regularly affected by long droughts,

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which force the rural population to migrate to the cities. The Volkswagen do Brasil Foundation has perfected a pump developed by a Dutch aid worker and identified low-cost suppliers. The raw materials and pump parts are sourced within Brazil, reducing the cost by about one third compared with imported pumps. By February 2007, 250 pumps had already been installed, supplying water for a total of 56,450 people.

Stakeholder dialogue

A company cannot develop a sustainable corporate strategy in isolation. The requirements imposed on globally active companies by politicians, the public and other stakeholders are simply too complex. Consequently, the Volkswagen Group welcomes and indeed actively seeks dialogue with stakeholder groups. In this way, we can gather information on the public perception of our behaviour, projects and strategies and identify any potential conflict areas at an early stage. Joint solutions can then be developed in a process of constructive dialogue.

Best practice: Volkswagen and NABU

Long-term cooperation with Naturschutzbund Deutschland (NABU - German Society for Nature Conservation) is especially important for Volkswagen. With 420,000 members, NABU is the largest environmental and nature conservation organisation in Germany. The objective of the partnership between NABU and Volkswagen is to contribute to sustainable development through specific projects.

One of the most prominent results of this partnership is the fuel-saving training campaign ("Drive differently – the easy way to save fuel"). Within this campaign, local NABU groups, VW dealers and a team of professional driving instructors all work hand in hand. The training sessions are open to everyone and participation is free of charge.

Evaluations of the training regularly demonstrate that savings of up to 20% in fuel consumption and emissions are possible. Participants are shown quite convincingly that it really pays to take your foot off the accelerator pedal earlier, leapfrog through the gears and coast on the overrun. It is not only the environment and the climate that benefit – saving fuel also means saving money and is accompanied by a tangible reduction in driver stress.

The "Mobil im Dialog" (Mobility through dialogue) series developed by NABU and Volkswagen provides a forum for the public discussion of the vision of sustainable mobility. Controversial standpoints and arguments are discussed together with prominent politicians and experts.

The first event in the series, held in Berlin, was organised under the motto of "Integrating the different means of transport – more than a white lie?" This was followed by workshops highlighting the prospects of biofuels and the relationship



Preparations for a fuel-saving training course

between climate protection and traffic. At the beginning of 2007, Volkswagen and NABU turned to the topic of "Green bridges. Can the requirements of species protection be reconciled with traffic infrastructure?"

Another joint project is the "Welcome, Wolf" campaign, in which NABU and Volkswagen are joined by the City of Wolfsburg and the VfL Wolfsburg football team (known in Germany as "The Wolves"). The aim of the initiative, launched in 2005, is to provide information in support of the "independent" return of wolves to Germany. Fear of the "big bad wolf" is often based on ignorance and prejudice. Volkswagen and NABU are determined to combat opposition to wolves by training volunteer "wolf scouts". Supra-regional PR work, including a touring exhibition and a cartoon competition, supplements the local activities of the initiative. Our projects with NABU remain many and varied. In connection with the Wolfsburg AG business start-up competition "Promotion", for example, NABU presented an "award for work and the environment". Another example is the advice provided in cooperation with the Ecological Canteen Service on healthy food for the Volkswagen canteens. In return, Volkswagen regularly supplies NABU with vehicles to assist the non-profit organisation in its work.

Sustainability calls for an attitude in which the position adopted by the other party is not seen primarily as a problem but as part of the solution. Taking this approach, Volkswagen and NABU have made considerable progress with dialogues and joint projects over the past few years. However, this does not mean that distinct differences of opinion do not occur between the partners from time to time.

Among politicians, investors and rating agencies, this cooperation is now seen as a best practice solution and even received a favourable mention in the previous German government's national sustainability strategy.

Neighbourhood dialogues

Being a good neighbour and dealing with local residents in a spirit of trust and cooperation are essential prerequisites for Volkswagen's business. Our relations are continually strengthened by a process of neighbourhood dialogues. For historical reasons, some of our production plants are located in the immediate vicinity of residential areas. In such areas, nuisance caused by noise and odour is unavoidable but can certainly be minimised. We have been able to improve acceptance of our plants among local residents by presenting planned changes in good time through appropriate forums and taking up suggestions made by residents. One example is the dialogue with neighbours, authorities, associations and local initiatives held at the Volkswagen Commercial Vehicle brand's Hanover plant twice a year. AUDI AG also reports on new products, innovations within the company and changes at the plant at neighbourhood dialogues which are held annually.

Dialogue with scientists

We engage in intensive dialogue with scientists and researchers concerning sustainable mobility and systematically promote applied research in this field. We are especially committed to the advancement of fuels and new powertrains. One example of this commitment is the new foundation chair in biofuels at Braunschweig Technical University in Germany, which Volkswagen is funding to the tune of ≤ 1 million over a period of five years. At the University of Münster in Germany, Volkswagen is also participating in the development of a chair in advanced material science for energy storage and conversion, which will be the only one of its kind in Europe. The objective is to improve the performance and durability of batteries for hybrid vehicles and thereby enhance one of the key technologies in our new Powertrain Strategy.

We also actively support young scientists. INI.FAU (Ingolstadt Institute of the Friedrich Alexander University of Erlangen-Nuremberg) is a cooperation project between AUDI AG, the University of Erlangen-Nuremberg and the City of Ingolstadt in Germany which provides support for doctoral students for a period of three years. The young scientists carry out research in areas such as software, electronics and material science. The objective is to network different vehicle systems with a view to making cars even safer, more comfortable and sportier.

New knowledge, the development of skills and the ability to learn are key factors in corporate sustainability in a world that is constantly changing. The Volkswagen AutoUni makes the new knowledge required available to the Group at the highest scientific level in the form of lectures, events and research projects.³⁷⁾



Prof. Dr. Martin Winterkorn and Prof. Karl-Dieter Grüske, Rector of the University of Erlangen-Nuremberg, following the signing of the INI.FAU cooperation agreement

The various teaching programmes of the AutoUni focus on the automobile value chain and cover procurement, marketing, sales, human resources and technical areas related to products. Strategically important topics for the future of the company are discussed in symposia and series of lectures. The lecture series "What's hot in science?", for example, deals with scientific, technical and social aspects of future trends. Among the speakers in February 2007 was Klaus Töpfer, former Executive Director of the United Nations Environment Programme (UNEP) whose topic was "Sustainable development as a global challenge."

Compared with classical industrial research, the scientific projects of the AutoUni have a broader focus. They concentrate on the Group as a whole, on corporate processes, strategies and schemes, and on future challenges.

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Customers and Markets

Customer nearness is one of our core Group Values. It is the interests of our customers that determine the actions of our employees and at the same time we assess all the activities of the Group on the basis of their value for our customers. For our success and the development of long-term customer relations, it is essential for us to be thoroughly conversant with and understand the motives and needs of customers and their attitudes to our products. In this connection, we also need to understand the context of customer behaviour, which is why our analyses also cover market structures and mechanisms. This holistic approach gives us a panoramic view of our customers.

Market research

A key area of market research is market structure research, which provides information on our customers, the vehicles purchased, the reasons for purchase and the alternatives considered by customers. Using the results of this research, we are in a position to assess satisfaction with the sales process, customer migrations and customer loyalties, as well as the vulnerability of our brands.

Our customer satisfaction, advertising and image research measures customer satisfaction with the service process, the brand image and the success of our advertising. Here too, we adopt different perspectives, considering both business-tobusiness (B2B) and business-to-customer (B2C) aspects. For all Group brands, we conduct regular surveys in all the world's major markets. In the case of the Volkswagen, Audi, Škoda and SEAT brands, we achieved considerable progress in 2006 through improvement measures based on research results. Our complaints management system plays a key role in customer satisfaction. To ensure that customer satisfaction is maintained, we process complaints as speedily as possible. At the same time, the targeted recording and evaluation of complaints provides essential insight into our customers' needs.

The success of our comprehensive customer relationship management approach is reflected in a large number of awards and the findings of studies. External surveys confirm high levels of customer satisfaction with the Volkswagen brand, for example. In an image analysis conducted by the major German motoring magazine "auto motor und sport", Volkswagen recorded improvements in all areas, taking second place in the "environment" category. The Polo has once again been chosen as Car of the Year in its class for 2007, for the 13th time in succession. The Multivan was also a class winner. Since the beginning of 2006 alone, the Volkswagen Passat has won a total of 20 international accolades, including the "Goldenes Lenkrad", the iF design award and the "Gelber Engel" of German automobile association ADAC. In the ADAC ranking "AutoMarxX", Audi took first place and Volkswagen third place in 2006. The main criteria for the ranking are customer satisfaction, brand image, quality and trends.

Another aspect closely related to customer satisfaction research is the analysis of the effectiveness of our communication activities. We therefore systematically assess the success of our advertising campaigns and carry out advertising tracking exercises (online and offline) and international evaluations of brand and model awareness. Special studies on aspects such as the environmental image of Group brands or the image of the brand with young people form an integral part of this approach.

We measure customer acceptance of new products long before they are launched: clinics and ad hoc studies reveal customer assessments of new products that are currently under development in terms of both quantity and quality.³⁸⁾ In this context, we identify market prospects, optimisation potential and decision-making profiles from the customer's point of view. Our objective is to ensure that, wherever possible, customer needs are fed directly into the development process. With this aim in mind, we carry out a variety of scouting activities and assess the potential of innovations. On the basis of the differentiated results obtained, we can then develop products that offer the appropriate customer benefits.

Customer segmentation is a more advanced approach to the comprehensive analysis of customers' needs. Detailed descriptions of all customer segments are added to the general customer requirements determined in advance. These include requirements related to the vehicle, lifestyle and leisure pursuits. We also conduct ethnographic interviews with customer groups to gain a detailed understanding of their lifestyle and their present and future way of life and distribute the findings across the Group.

Trend analysis and future-research goes one step further. Here, the objective is to predict the product characteristics that will be required by customers and market conditions in the more distant future. Quantitative and, to a greater extent, qualitative methods are used to identify global social developments and consumer trends together with their impacts on the automobile market. In particular, scenario techniques are applied as a planning tool for the assessment of alternative future developments. The results of these surveys are then used as trend studies as a basis for further discussions (see page 28f.).

¹⁸ Read more about "Market Research" at: www.volkswagensustainability.com → Markets → Customer Dialogue → Market Research

Customer relationship management

The results of market research form the basis for customer relationship management (CRM). The CRM system focuses on creating long-term brand loyalty, taking into account possible synergies within the Group. A Group CRM strategy has been drawn up and implemented to ensure that CRM is integrated systematically in all the relevant business areas. This makes for communications that are geared to the individual requirements of customers.³⁹⁾

Quality

Across the Volkswagen Group we pursue a rigorous quality policy. Our continuous efforts to improve customer satisfaction are channelled through our quality management system. One of our primary objectives is to make a significant step towards the target of zero defects in our vehicles by improving the quality of outsourced systems.

To strengthen the foundations for the necessary intensive partnership with our suppliers in this context, we have launched a number of initiatives extending from the product development phase through to production.

With a view to intensifying cooperation and to extending the responsibility of suppliers for warranty and concession expenses, "design responsibility agreements" are concluded between the Volkswagen Group and its suppliers in advance of the development of a new product. By introducing Supplier Conventions, the Volkswagen Group has also set in motion a worldwide initiative for improving cooperation with suppliers in the product creation phase. Supplier Conventions focusing on delivery quality and other site-specific topics are held by all the brands and in all the regions and plants throughout the world. Apart from an exchange of specialist experience between Volkswagen and its suppliers, the objective of these conventions is to agree specific measures with the management of suppliers where problems have arisen, with a view to ensuring a sustained improvement in the quality situation.40)

Even beyond the boundaries of the Group, the Volkswagen Group is actively involved in quality. For example, the fourth quality policy summit of VDA – the German Association of the Automotive Industry – was held at the Autostadt in Wolfsburg on 23 November 2006 and attended by 200 representatives of manufacturers and suppliers.

Safety

Road safety is one of the most important concerns for us and our customers. Since the beginning of the 1990s, the risk of being injured in a road accident has fallen dramatically. Nevertheless, there were still 1.3 million accidents in the EU in 2005, resulting in 30,000 deaths and 1.7 million injuries. In the development of vehicle safety systems, the Volkswagen

Group has traditionally made accident prevention, occupant protection and pedestrian safety its top priorities. We combine active and passive safety measures in a holistic approach to safety. Active safety includes dynamic handling systems such as the anti-lock brake system (ABS), the electronic stabilisation program (ESP) and adaptive cruise control (ACC). ACC is an assistance system that will in future automatically keep a safe distance from the vehicle ahead within a certain speed range (see page 29). The Audi accident database indicates that ESP alone saves lives in four out of five accidents. Volkswagen is supporting the EU objective of halving road accident fatalities by the year 2010 compared with 2000. In our opinion, this will only be possible with ESP. Should an accident occur despite these assistance systems, passive safety measures such as targeted deformation of the bodywork and airbag systems minimise the consequences for occupants and other road users.

When it comes to occupant protection, children deserve special attention. Some 50% of the children who die in road accidents are killed because appropriate child restraint systems were not correctly fitted or used. According to European studies, more than half of child seats are fitted or used incorrectly. In the Passat, Volkswagen now offers an entirely new generation of integrated child seats. These are easy to use and can be fully folded away into the rear seat if necessary. The standardised Isofix mount offers a safe connection to the bodywork for portable child seats.

Driver assistance systems and technologies for networking between vehicles interface both with safety and with traffic management. Initial systems of this type are already in use. The ADC (Automatic Distance Control) system of the Passat features an integrated pre-crash braking function that marks the onset of the third computer-aided vehicle safety revolution following the airbag and ESP.

Volkswagen Group vehicles have an excellent reputation for safety and reliability. The latest models from Volkswagen and Audi have already earned top marks in the Euro NCAP (New Car Assessment Programme) and from the US Insurance Institute for Highway Safety (IIHS). The Audi models A6 and A4 and the Volkswagen Golf, Jetta and Passat all received the coveted Top Safety Pick Award in the IIHS Safety Study 2006. In the Euro NCAP crash tests with respect to children's safety, the Volkswagen Fox earned top marks in the super-mini class.

Both the Volkswagen Group and the individual brands are involved in accident research. For example, the Audi brand operates its own Audi Accident Research Unit in cooperation with Regensburg University Hospital in Germany, which works closely with the accident research unit at Group headquarters. At the beginning of 2007, the Škoda brand opened its own accident research unit at its Mlada Boleslav plant.

³⁹ Read more about "Customer Satisfaction" at: www.volkswagen-

sustainability.com -> Markets -> Customer Dialog -> Customer Satisfaction

⁴⁰ Read more about "Quality" at: www.volkswagen-sustainability.com -> Markets -> Quality

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Throughout the Group, the results of comprehensive accident analyses are used directly for product optimisation. The results benefit not only our customers but in the final resort all road users through our committee work and publications.

As a result of different driver behaviour in Asia, very different road safety concepts are required than in Europe and America. In China, there are seven road accident fatalities per 10,000 vehicles, five times more than in Germany. Together with the Tongji University of Shanghai, in 2005 Group Research set up the first accident research project of any western carmaker in Asia. The project, which includes indepth analysis of actual accidents, was handed over to Volkswagen in Shanghai at the end of 2006.

Environmental communications

In order to present our environmental achievements and foster ecologically sound behaviour on the part of customers and other interested parties, the Volkswagen brand has created a roadshow that will tour 150 dealerships and attend major events throughout Germany between mid June and the end of September 2007. The motto of the roadshow is "Shouldering responsibility. Volkswagen and CO₂". Apart from providing information on the problem of carbon dioxide, at the roadshows we offer general tips for everyday motoring and - in cooperation with NABU - give advice on how to cut fuel consumption and thus carbon dioxide emissions in particular. The shows also feature the latest lowconsumption vehicles, such as the BlueMotion diesel models and our Group-wide Powertrain and Fuel Strategy. All the information is also available in a comprehensive brochure for customers.

In connection with the launch of the new Golf Estate, we conducted nationwide training for salespeople in May 2007. Environmental training, covering the current status of the climate debate, the BlueMotion sustainability initiative and our Powertrain and Fuel Strategy, was a key element of the programme. Across Germany, we provided training for a total of some 5,000 salespeople.

To meet many customers' growing desire to adopt a responsible attitude to the environment, we now endeavour to present a full and clear picture of the environmental properties of our products. Ecological product certificates offer a further opportunity to convincingly present the environmental characteristics of our models and the positioning of our brands. To this end we have introduced an Environmental Commendation which sets out the environmental data over the entire product life cycle, ensuring a high degree of comparability. The Environmental Commendation, which has itself been certified by an independent body, was issued for the Passat in 2007 and other models are due to follow. The purpose of the Environmental Commendation is to render the environmental impact of a product over its entire life cycle transparent. Product declarations of this type are set to become increasingly important, especially in the field of public procurement in connection with the EU sustainability strategy. In addition, the Environmental Commendation may lead to synergy effects with other areas of environmentally oriented management.⁴¹⁾



The Volkswagen dealer roadshow

Key Indicators

In the Sustainability Report 2007/2008, the Facts and Figures section has been substantially expanded. The Group indicators reproduced in this report are complemented on the Internet by indicators for the individual brands, companies and regions at www.volkswagen-sustainability.com.

Data acquisition

In order to reveal trends, in this report we present the key indicators for the last three years. Data have been consolidated at Group level since 2001, while the individual brands and companies are responsible for data collection. The information presented is essentially limited to absolute indicators which relate to the financial year (January 1 to December 31). Given our wide and heterogeneous range of products, it makes little sense to convert this data into specific indicators per product unit. As a result of the constant optimisation of the data collection process over recent years, some indicators for the years 2004 and 2005 had to be slightly modified. The financial data for previous years have been restated due to new or revised accounting standards. The Group indicators shown on the following pages, divided into environmental, social and financial aspects, provide some insight into trends over the reporting period 2004 to 2006. For our future sustainability reporting, the data collection process will be made even more systematic and wide-ranging.

Environmental indicators

As in previous Environmental and Sustainability Reports, in this report too we present selected environmental data for the Volkswagen Group in aggregate form. The environmental data are collected, checked and approved at the individual plants in line with an internal standard (VW standard 98 000) and a process standard. In respect of the 2006 environmental data, the collection process at the plants was again improved, resulting in the need for slight modifications to the data for previous years. And compared to the previous Sustainability Report, several new indicators have been added.

The aggregate environmental data presented here in concise form primarily reflect trends in the development of the overall environmental impact of the Group. Effective control variables can only be determined by studying the data for the individual brands, regions, countries and plants.

In all, environmental data is collected at 39 production plants with 324,875 employees (per December 31, 2006). The following Volkswagen Group production plants are not yet included:

- Wolfsburg Plant, Sitech Sitztechnik GmbH (100% VW AG)
- Polkowice Plant Sitech Sitztechnik GmbH (100% VW AG)
- Sarajevo Plant (58% VW AG)
- Aurangabad Plant (100% Škoda Auto a.s.)
- VW Transmission Plant, Shanghai-Jiading (60% Volkswagen China Investment Ltd.)
- VW Powertrain Plant, Shanghai-Loutang (60% Volkswagen)
- VW-FAW Engine Plant, Dalian (60% Volkswagen)
- VW-FAW Platform Plant, Changchun (60% Volkswagen)

As in the past, the autonomous utility companies (e.g. Volkswagen Kraftwerk GmbH) and non-manufacturing companies (e.g. Financial Services) are not included in the environmental data. These are either not governed by the management of the respective production plants or are nonmanufacturing companies and therefore not included in the reporting framework.

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Social indicators

A Group-wide system for recording social indicators has been put in place at the Volkswagen Group in the course of the past three years. From the end of 2006 onwards, the system has been introduced progressively. As the newly developed controlling system for the Personnel department is introduced, we aim to include new social indicators in our reporting system. Thanks to the increasing level of standardisation generated in the course of this project, we can now report in more detail on the entire Group workforce, including China. The social indicators published in the present report refer to 100% of consolidated companies.

Financial indicators

The indicators shown in this report comply with the International Financial Reporting Standard (IFRS) for the entire period from 2004 to 2006.

Definitions

Freshwater Volume

The freshwater volume is the volume of water drawn from public or private supplies, water abstracted by the company for its own use from springs and open bodies of water plus rainfall and surface water.

Wastewater Volume

The wastewater volume is the volume of water which, after use or treatment, is discharged directly into a receiving stream, into the groundwater or into a publicly or privately operated drainage system or effluent treatment plant or is transported by tanker to a third-party treatment plant.

Chemical Oxygen Demand (COD)

The chemical oxygen demand is the quantity of dissolved oxygen that is required for the complete oxidation of the organic substances present in wastewater. Thus the COD value is a measure of the loading or contamination of wastewater with oxidisable substances. Indirect dischargers are not obliged to determine COD values.

Waste

Waste is classified in different ways in line with the legislation of different countries. In order to introduce some uniformity into its statistics, the Volkswagen Group has introduced its own definitions which apply worldwide. To enable appropriate representation of production-related waste, the waste arising from construction activities (building rubble, excavated soil etc.) is not included here.

Non-Hazardous Waste

The term non-hazardous waste covers waste that presents an

insignificant or minimal threat to humankind and the environment.

Hazardous Waste

Hazardous waste poses a considerable threat to humankind and the environment and must therefore be specially treated or landfilled in accordance with specific safety precautions.

Metallic Waste

Metallic waste is waste containing ferrous (FE) and nonferrous (NE) metals in the form of chips, cable waste or scrap and used machinery and metallic units which are to be scrapped. Metallic waste is largely recovered by material recycling and is shown separately.

Global Warming Potential

Global Warming Potential (GWP) is the numerical representation of the impact of a greenhouse gas on the climate, extrapolated for a specific period (e.g. 100 years). The reference compound here is CO₂ which has a GWP of 1.

Emissions of Volatile Organic Compounds (VOC)

VOCs are responsible for the formation of ground-level ozone in the presence of nitrogen oxides and sunlight. The principal sources of these emissions in vehicle manufacturing are the paintshops.

Nitrogen Oxides Emissions (NO_x)

Nitrogen oxides are a by-product of high-temperature combustion processes, such as in vehicle engines and power stations. They are primarily created by the oxidation of atmospheric nitrogen, and less by oxidation of the bonded nitrogen present in fuels.

Sulphur Dioxide Emissions (SO₂)

Sulphur dioxide is primarily generated during the combustion of fuels containing sulphur.

Direct Carbon Dioxide Emissions (CO2)

These are emissions which arise directly at Group plants due to the combustion of natural gas or coal, for example. Items of plant and equipment in which such combustion processes occur include thermal aftertreatment equipment in the paintshops, heat treatment installations in the hardening shops, boiler plants for generating heat and engine test benches. Carbon dioxide is the best-known greenhouse gas.

Total Carbon Dioxide Emissions (CO₂)

Total CO₂ emissions include emissions of CO₂ that arise directly at Group plants and the indirect emissions, which are emissions released elsewhere as a result of the purchase of energy (electricity, district heating and other energy products) from external power stations, combined heat and power plants and boiler plants. The indirect CO_2 emissions are calculated from the amount of energy purchased using emission factors for the respective forms of secondary energy (electricity or district heat). To compute the indirect CO_2 emissions of the Volkswagen production plants, we use specific emissions factors supplied by the VDA (Association of the German Automobile Industry) for the various countries.

Energy Consumption

Fuel consumption at the production plants includes all the (mainly fossil) primary energy required for stationary combustion processes. This mainly comprises low-carbon natural gas for production processes and for generating technical heat and space heat in our boiler plants. Other feedstocks used include coal and propane.

Total energy consumption is calculated from a plant's fuel consumption plus externally purchased electricity and district heating. In this connection, the power stations, combined heat and power plants and boiler plants belonging to VW Kraftwerk GmbH are treated as external energy suppliers.

Environmental Protection Expenditures

Environmental protection expenditures include all additions to property, plant and equipment which serve exclusively or predominantly to protect against harmful effects arising from production processes. Such measures may relate either to products or to production processes.

The data presented relate only to the Group's European plants, as the data collection and reporting system for expenditures at non-European plants is still under development.

Environmental Protection Operating Costs

Environmental protection operating costs comprise all costs arising from the operation of systems, facilities or measures serving to protect the environment. These measures refer exclusively to production-related activities.

The data presented relate only to the Group's European plants, as the environmental protection operating costs of non-European plants are not comparable due to different data collection methods. GROUP | CHALLENGES | STRATEGY AND MANAGEMENT

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Environmental Indicators



The slight increase in energy consumption in terms of both electricity and fuel consumption is directly related to the continuous increase in production output in the period under review.

DIRECT CO₂ EMISSIONS IN MILLION T/A



2

The slight increase in direct CO_2 emissions and thus in total CO_2 emissions in 2006 is due to the increase in the volume of production and the associated rise in energy consumption, particularly in China. Another reason for the rise in direct CO_2 emissions is the expansion of the range of data collected to include the engine test benches, for example.

TOTAL CO, EMISSIONS IN MILLION T/A



Total CO_2 emissions are approximately 4.5 times as high as direct CO_2 emissions. This means that approximately 80% of the Group's total CO_2 emissions are generated indirectly, as a result of the purchase of district heating and electricity, while approximately 20% are generated by combustion processes at the plants. Collection of total CO_2 emissions data for all plants commenced in 2005.

DIRECT SO₂ AND NO_X EMISSIONS IN T/A



Emissions data for direct emissions of NO_x and SO_2 have been collected across the Group since 2004. The rise in NO_x emissions in 2006 is explained by modified recording arithmetic at one plant.

The drop in SO_2 emissions between 2005 and 2006 was due to enhanced data collection methods, above all in China.

VOLATILE ORGANIC COMPOUNDS (VOC) IN T/A



FRESHWATER AND WASTEWATER IN MILLION M³/A



A drop in VOC emissions was recorded at many plants, including Wolfsburg, Neckarsulm, Puebla, Martorell and Mlada Boleslav.

However, the strong rise in production output in China and the resultant upturn in VOC emissions led to an increase in VOC emissions for the Group as a whole.

Water consumption at many plants has shown a further fall in response to the Volkswagen Group's resource conservation strategy. However, owing to the ongoing strong rise in production output in China, there was a slight increase in the Group's total water consumption in 2006. GROUP | CHALLENGES

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COD LOAD IN T/A



The rise in COD load is attributable to the increase in production volumes, particularly in China. In addition, since 2005 an additional production plant has been included in the environmental data collection process.





The legislation introduced in Germany in June 2005 prohibiting the landfilling of industrial waste similar to domestic waste led to a marked increase in non-hazardous waste for recycling in 2006. The introduction of data collection for certain forms of mass waste, such as foundry sand, also contributed to this increase.

Owing to a higher recycling rate in the overall volume of waste for disposal, the volume of hazardous waste for recycling also increased.

The rise in metallic waste was due to the increased volume of production and the introduction of new models.

EXPENDITURE ON ENVIRONMENTAL PROTECTION IN € MILLION/A



Operating costs for environmental protection (Europe)

Contrary to the trend in the previous reporting period, the level of investment in environmental protection at the Group's European plants showed a marked increase in the period under review. The lion's share of this increase is accounted for by investments in modern painting systems and air treatment equipment. Operating costs for environmental protection, by contrast, have fallen, owing to consolidation measures introduced at the Group.

Social indicators

NUMBER OF EMPLOYEES BY TYPE OF WORK

| | 2006 | 2005 | 2004 |
|------------------------|---------|---------|---------|
| Production workers | 176,187 | 183,116 | 180,637 |
| Non-production workers | 139,489 | 152,785 | 153,069 |
| Apprentices | 9,199 | 9,001 | 8,796 |
| Core workforce | 324,875 | 344,902 | 342,502 |
| thereof temporary | 14,461 | n.a. | n.a. |
| thereof permanent | 310,414 | n.a. | n.a. |

On the balance-sheet date (December 31, 2006) the Volkswagen Group had a total of 324,875 employees on the payroll. This equates to a drop of 5.8% compared to 2005. The reduction in the headcount is above all due to the sale of the gedas Group and the Europear Group. In addition, at Volkswagen AG in particular, the reduction of the workforce initiated as part of a package of measures to boost performance impacted on employee numbers. In a contrary development, the number of apprentices across the Group rose 2.2% to 9,199.

NUMBER OF EMPLOYEES BY REGION

| | 2006 | 2005 | 2004 |
|--------------|---------|---------|---------|
| Europe | 256,605 | 270,449 | 269,480 |
| The Americas | 40,016 | 45,105 | 43,793 |
| Africa | 6,625 | 6,456 | 6,160 |
| Asia | 21,629 | 22,892 | 23,069 |
| Total | 324,875 | 344,902 | 342,502 |

The reduction in the number of employees by 20,027 is due to restructuring measures within the Group and the sale of gedas and Europear.
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The employee turnover rate showed a sharp rise in 2006, the year in which a major proportion of the restructuring measures with an impact on employee numbers took place. Through the sale of Europcar and gedas alone, 11,100 employees left the Group. In addition, phased retirement schemes and voluntary redundancies within the Group led to an increase in employee turnover.

PROPORTION OF FEMALE EMPLOYEES AT THE VOLKSWAGEN GROUP IN PERCENT



Compared to 2005, the proportion of female employees at the Volkswagen Group rose by 1.5 percentage points in 2006 to 13.9%. As a result, in contrast to the metalworking and automobile industry as a whole, where the proportion of women employees has shown a marked drop in recent years, Volkswagen can report a positive trend in this respect.

PROPORTION OF APPRENTICES IN GERMANY IN PERCENT



The proportion of apprentices is a vital indicator not only of the future viability of a company but also of its contribution to the ongoing development of society. Since other countries do not have a training model which corresponds to the German "dual" training system, the figures here relate to Germany only. The Volkswagen Group has in fact set up similar training systems at several foreign plants, but since these are not directly comparable with the German model, the figures cannot be included here.

ACCIDENTS



Working days lost Number of industrial accidents The number of working days lost fell by almost 4,000 in 2005 compared to 2004. This was due to a marked reduction in the number of accidents at production plants overseas, in some cases by up to 50%. One reason for this is the introduction of a Group-wide occupational safety policy, which helped to ensure that the plants integrated occupational safety measures more systematically into the management process and improved their occupational safety communications. In addition, at individual overseas plants, projects such as "Self-Assuredly Safe", which had proven their worth at European locations, were also introduced.

ACCIDENT INDICES



The accident frequency index indicates the frequency of industrial accidents relative to the total number of hours worked (formula: number of industrial accidents x1 million / no. of hours worked).

The accident severity index indicates the severity of the accidents by calculating the ratio of the total number of working days lost to the total number of hours worked (formula: number of working days lost x1 million / no. of hours worked x10).

As shown by the accident frequency index, the number of accidents showed a clear downturn in 2006 compared to 2005. This too is due to the more systematic approach to occupational safety at the Group's overseas plants. By contrast, the severity of accidents at the Group increased slightly in 2006 compared to the previous year.

2004 2005 97.2 2006 97.2 0 10 80 90 100 20 30 40 50 60 70

HEALTH INDEX CUMULATIVE VALUES IN PERCENT

The health index indicates the overall health situation at the company. It is determined by deducting the percentage of97.3 days lost due to illness or accident from the maximum possible attendance rate of 100%.

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NUMBER OF OCCUPATIONAL SAFETY TRAINING SESSIONS

| | 2006 | 2005 |
|---|--------|-------|
| No. of occupational safety training sessions conducted internally | 1,127 | 827 |
| No. of occupational safety training sessions conducted externally | 1,269 | 1,120 |
| No. of employees taking part in these (internal) sessions | 11,053 | 7,018 |
| No. of employees taking part in these (external) sessions | 6,442 | 5,719 |
| No. of internal occupational safety audits conducted | 117 | 92 |
| No. of safety inspections | 2,067 | 1.965 |
| No. of meetings of Occupational Safety Committee | 83 | 85 |

Collection of data on the number of occupational safety training sessions conducted began in 2005. This is the first time we have included them in our reporting. The above data relate to the following plants: VW Wolfsburg, VW Kassel, VWN Hanover, VW Emden, VW Braunschweig, VW Salzgitter, VW Slovakia, VW Sachsen Mosel, VW Navarra, VW Dresden, VW Polkowice, VW Poznan, VW Sachsen Chemnitz and Autoeuropa. There are differences in the way the individual measures are defined at the various plants.

Financial indicators

VOLUME DATA IN '000

| | 2006 | 2005 | 2004 |
|----------------------------|-------|-------|-------|
| Vehicle sales (units) | 5,720 | 5,193 | 5,143 |
| Germany | 1,093 | 1,019 | 940 |
| Outside Germany | 4,627 | 4,174 | 4,203 |
| Production (units) | 5,660 | 5,219 | 5,093 |
| Germany | 1,935 | 1,913 | 1,832 |
| Outside Germany | 3,725 | 3,306 | 3,261 |
| Employees (annual average) | 329 | 345 | 343 |
| Germany | 174 | 179 | 179 |
| Outside Germany | 155 | 166 | 164 |

FINANCIAL DATA IN € MILLION

| | 2006 | 2005* | 2004 |
|--|---------|---------|--------|
| Sales revenue | 104,875 | 93,996 | 88,963 |
| Operating profit | 2,009 | 2,538 | 1,642 |
| Profit before tax from continuing operations | 1,793 | 1,621 | 1,088 |
| Profit from continuing operations | 1,955 | 1,050 | 697 |
| | | | |
| Cost of materials | 66,935 | 62,620 | 58,239 |
| Personnel expenses | 17,400 | 14,796 | 14,038 |
| | | | |
| Pension provisions | 13,854 | 14,003 | 12,633 |
| | | | |
| Cash flows from operating activities | 14,470 | 10,709 | 11,457 |
| Cash flows from investing activities | 11,911 | 10,365 | 15,078 |
| Cash flows from financing activities | -114 | - 1.794 | 6,004 |

*Restated.

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VALUE ADDED GENERATED BY THE VOLKSWAGEN GROUP IN \in MILLION

| Source of funds | 2006 | 2005* | |
|-------------------------------|---------|---------|--|
| Sales revenue | 104,875 | 93,996 | |
| Other income | 6,849 | 6,176 | |
| Cost of materials | -66,935 | -62,620 | |
| Depreciation and amortization | -9,398 | -8,654 | |
| Other upfront expenditures | -11,790 | -9,300 | |
| Value added | 23,601 | 19,598 | |

| Appropriation of funds | 2006 | % | 2005* | % |
|--|--------|-------|--------|-------|
| to shareholders (dividend) | 497 | 2.1 | 450 | 2.3 |
| to employees (wages, salaries, benefits) | 17,400 | 73.7 | 14,796 | 75.5 |
| to the state (taxes, duties) | 440 | 1.9 | 1,047 | 5.3 |
| to creditors (interest expense) | 3,011 | 12.8 | 2,634 | 13.4 |
| to the Company (reserves) | 2,253 | 9.5 | 671 | 3.5 |
| Value added | 23,601 | 100.0 | 19,598 | 100.0 |

*Restated.

KEY FIGURES BY BUSINESS LINE IN THOUSAND VEHICLES/€ MILLION

| | Absatz ¹⁾ | | Absatz ¹⁾ Umsatzerlöse | | Operatives Ergebni | |
|-------------------------------------|----------------------|-------|-----------------------------------|--------------------|--------------------|--------------------|
| | 2006 | 2005 | 2006 | 2005 ²⁾ | 2006 | 2005 ²⁾ |
| Volkswagen brand group | 3,941 | 3,557 | 54,871 | 49,681 | 1,424 | 516 |
| Audi brand group | 1,334 | 1,241 | 32,673 | 28,432 | 1,991 | 1,387 |
| Commercial Vehicles | 445 | 395 | 8,343 | 7,297 | 101 | 96 |
| Remaining companies ³ | | | 117 | 270 | 24 | 61 |
| Financial Services | | | 8,871 | 8,316 | 843 | 829 |
| Business lines before special items | 5,720 | 5,193 | 104,875 | 93,996 | 4,383 | 2,889 |
| Special items | | | | | -2,374 | -351 |
| Volkswagen Group | 5,720 | 5,193 | 104,875 | 93,996 | 2,009 | 2,538 |

All figures shown are rounded, so minor discrepancies may arise from addition of these amounts.
 Restated.
 Primarily Volkswagen Group Services SCS, Volkswagen International Finance N.V., Volkswagen Investments Ltd., VW Kraftwerk GmbH, Volkswagen Immobilien, VW Retail group, gedas group until March 2006 inclusive.

Goals

The Volkswagen Group has set itself Group-wide goals to improve its sustainable development. The brands and companies use these goals as the basis for their own operational goals. In the Sustainability Programme set out here, both existing and newly defined goals are summarised.

The Programme can also be found on our Group portal

www.volkswagen-sustainability.com. The goals of the Volkswagen brand are presented on our brand portal www.mobilityand-sustainability.com. The Sustainability Programme below documents goals that are of strategic significance to the whole Group, together with the accompanying management actions.

SUSTAINABILITY PROGRAMME 2007

| Goal | Action | Status I | Deadline |
|--|---|---|----------------|
| Responsible management | | | |
| Improve internal organisational structures | Introduce a CSR management system and an anti-corruption system | Partly achieved by establishment of a Group-wide anti-corruption system | ongoing |
| Enhance responsible supply chain management | Promote a "certified" environmental management system for component suppliers | - | 2008 |
| Goal Responsible management Improve internal organisational structures Enhance responsible supply chain management Boost sustainable shareholder value Improve internal and external sustainability communications Environmental compatibility Reduce CO2 emissions and energy consumption | Integrate sustainability aspects into quality assurance supplier audits across the Group | | 2009 |
| | Set up a supplier training concept on the subject of sustainability | | 2008 |
| Boost sustainable shareholder value | The Volkswagen Group attains a leading position in national and international sustainability indices and rankings | | 2008 |
| Improve internal and external sustainability communications | Deploy a "technical capabilities" roadshow at three locations in the USA | | 2008 |
| Environmental compatibility | | | |
| Reduce CO ₂ emissions and energy consumption | Further optimisation of the CCS powertrain to run on sulphur-free, aromatics-free raw petrol | | ongoing |
| | Provide active support for second generation biofuels | Partly achieved through extended cooperation with our partners IOGEN and CHOREN | ongoing |
| | Take EcoFuel vehicles forward in the direction of TSI engines running on natural gas | | ongoing |
| | Offer liquefied gas (LPG) vehicles in China, in particular for taxi use | Partly achieved through introduction of Santana 3000 with CNG drive | 2007 |
| | Realise the HT fuel cell in a vehicle | - | 2010 |
| | Transfer the fuel-saving powerful twin-charger technology (TSI) presented in the Golf to other classes of vehicle | | ongoing |
| | Systematic preparation of engines for a continuous increase in the admixture of renewable feedstocks to petrol and diesel fuels | | ongoing |
| | Fuel-saving enhancement of the successfully introduced direct-shift gearbox to make this a building block in our CO ₂ reduction strategy | | ongoing |
| | Make more use of fuel-saving model versions | | ongoing |
| | Each model to present better environmental properties than its predecessor | | ongoing |
| | Extend the range of model versions that use alternative fuels | | ongoing |
| | Cut fuel consumption and CO ₂ emissions in China by 20% | | before 2010 |
| Optimise environmental management | Establish an information and communication platform as a tool for a Group-wide knowledge network | | 2008 |
| | Inclusion of current topics, such as climate change, sustainability or biodiversity on the agenda of the Regional Conferences | | ongoing |

The actions shown in grey originated in our Sustainability Programme 2005. They are continued in our current programme.

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| Goal | Action | Status | Deadline |
|--|--|---|----------------|
| Environmental compatibility | | | |
| Optimise environmental management | Integration of Life Cycle Assessments into the analysis of various research and development concepts | | ongoing |
| anagement It airborne pollutants Social responsibility feguard jobs Iprove human resources Ivelopment tablish employee data recording pand employee surveys tensify university marketing Iprove employee health | Use the findings of comparative Life Cycle Assessments in the ongoing development of corporate strategy | | ongoing |
| | The target date for certifying the environmental management systems at all existing production plants has been put back to the end of 2007 | | 2007 |
| Cut airborne pollutants | Meet legal requirements for a reduction in NO_x in advance by means of an NO_x storage catalytic converter and SCR | | before 2010 |
| Social responsibility | | | |
| Safeguard jobs | Implement and enhance the collective wage agreement, for example by designing a factory agreement on innovative working practices | Partly achieved through the ongoing implementation of the Volkswagen Way | ongoing |
| Improve human resources development | Develop and deploy a Group-wide harmonised HR development strategy focused on: the talent pipeline • talent selection and promotion development tracks for wage-earners • development tracks into and within management for specialists and executives | | 2008 |
| | Reinforce the overall understanding of core processes and the value chain through systematic job rotation | | ongoing |
| | Entry programmes for university graduates, Start Up entry programme | | ongoing |
| Establish employee data recording | Establish the Group-wide recording system ZEUS for employment data to optimise Human Resources supervision at Group level | Achieved in Germany, being imple- mented at plants outside Germany | 2008 |
| Expand employee surveys | Implement the employee mood barometer across the Group | Partly achieved, implemented at Audi, further plants to follow probably in Q4 2007 | ongoing |
| Intensify university marketing | Direct approach to universities, university fairs, recruiting events at universities | | ongoing |
| Improve employee health | The general health check-up 2007 will be introduced at the Volkswagen plants in Germany (probably beginning in the autumn). At some Group companies (e.g. AUDI AG) this is already practised | Partly achieved (at AUDI AG for example); probable introduction from autumn 2007 at Volkswagen plants in Germany and from 2008 at Volks- wagen plants outside Germany | ongoing |
| Enhance occupational health and safety | Carry out an integrated project with ILO, GTZ and local authorities to improve occupational health and safety on suppliers' premises in emerging nations | Partly achieved, as both initial advisory visits and reviews have taken place in South Africa, Mexico and Brazil | 2008 |
| Improving road safety | Develop an accident research function in China with the aim of optimising interaction between product, driver and the environment | Partly achieved: in 2005 Group Research set up a road accident research unit in Jiading District Shanghai together with Tongji University Shanghai | ongoing |
| Economic agility | | | |
| Increasing profits | In 2007, increase revenues and improve operating profit compared to previous year's operating profit before special items. Minimum targeted profit before tax for 2007 is \in 5.1 billion | | 2007 |
| Increasing returns | Aim to pursue a return on investment (ROI) after tax of 9% for the Automotive Division | | ongoing |
| | Aim to pursue a return on equity (ROE) before tax of 20% for the Financial Services Division | | ongoing |
| Ensuring liquidity | Generate a positive free cash flow in the Automotive Division | | ongoing |
| Introduce transparent Group structures | Breaking up the brand groups restores full autonomy and responsibility for all their own business to the individual brands | | achieved |

The actions shown in grey originated in our Sustainability Programme 2005. They are continued in our current programme.



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JUNE 2, 2006 Volkswagen receives European environmental award.

The European Commission honours Volkswagen's particularly environmentally-compatible and resource-conserving technology in the end-of-life vehicle recycling sector with the European Business Award for the Environment. In the category "Environmentally-friendly Processes and Procedures" the Commission presented the award for the Volkswagen-SiCon process developed in conjunction with SiCon GmbH, through which materials from the end-of-life vehicle recycling process which in the past could not be segregated in an economically meaningful way, can now be recovered and returned to the materials cycle.

JULY 13, 2006 Volkswagen joins the Clean Energy Partnership (CEP).

The main role of the CEP is to test the everyday serviceability and system capability of hydrogen as a feedstock. By joining the CEP, Volkswagen AG aims to further promote sustainable mobility while at the same time obtaining important findings from the application of hydrogen in the demonstration project. In the context of its Powertrain and Fuel Strategy, Volkswagen is working intensively on the topic of hydrogen and the fuel cell.

JULY 17, 2006 Volkswagen kicks off the BlueMotion range with the Polo.

In the Polo BlueMotion, Volkswagen successfully launches Europe's most economical five-seater car.

AUGUST 31, 2006 Volkswagen ranked top in J.D. Power environmental study.

In the USA, Volkswagen leads the field in terms of environmental-friendliness. This is confirmed by a recent study by the renowned US market research institute J.D. Power. The institute analysed 37 automobile brands represented in the USA, looking at various environmental aspects. With three models among the top 30 lowest-emission petrol-driven and hybrid passenger cars and an innovative diesel fleet, Volkswagen emerged from the study, which was first conducted in 2006, as the most environmentally-friendly vehicle manufacturer in the USA.

SEP

0

FEBRUARY 12, 2007 Audi brings its e-models to market.

Audi is optimising the fuel consumption figures for its most popular models. A whole raft of efficiency measures in the petrol and diesel-engined A3, A3 Sportback 1.9 TDI e, A4 2.0 FSI e and 1.9 TDI e models help translate fuel very efficiently into propulsion. In both petrol and diesel models, advanced engine technology with direct injection provides the basis for a high range between refuelling stops.

MARCH 7, 2007 World premiere for one of the most economical mid-range cars of our day: the Passat BlueMotion.

At the 77th Geneva Motor Show in 2007, Volkswagen presented the next step in its BlueMotion strategy by adding another model to the range. Through the economical BlueMotion models, Volkswagen is helping to make even more efficient use of fuels and contributing to the reduction of CO₂ emissions.

| | | 20 | 07 | | | | MAY 22, 200 Environmen The newly c index lists cc index and h ronmental c | Volkswage tal Leaders E reated Envirv ompanies tha ave obtained rriteria. | en AG listed i Europe 40 ind onmental Lea at feature in t d top marks i | n FTSE4Good dex. aders Europe 4 the FTSE4Good n terms of env | 0 i- |
|----|-----|-----|-----|-----|-----|-----|--|---|---|--|---------|
| ст | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | |
| | | | | | | | | | | | |

NOVEMBER 23, 2006 BUND triggers campaign against automakers.

The Volkswagen Group failed to conduct the dialogue with BUND (Friends of the Earth, Germany) proactively enough to convince them of its strategy for the reduction of greenhouse gases. Now this nature conservation body has accused Volkswagen of pursuing a model portfolio strategy that will harm the climate. Outside Wolfsburg town hall, for example, a large-scale poster was set up showing a caricature of an advertisement for the Volkswagen Eos.

2005–2007 Safeguarding competitiveness through restructuring.

In order to counteract strong competitive and cost pressures, along with measures relating to products and cost of materials, mutually acceptable solutions for reducing the payroll were found, including voluntary redundancy agreements and phased retirement schemes.

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Indepent Assurance Report

to Volkswagen AG, Wolfsburg

We have performed a limited assurance engagement regarding the part "key indicators" (p. 62–73) of the Sustainability Report 2007/2008 of Volkswagen AG.

The preparation of the Sustainability Report 2007/2008 in accordance with the following criteria stated in the Sustainability Reporting Guidelines Vol. 3 of the Global Reporting Initiative

- Materiality,
- Sustainability Context,
- Completeness,
- Balance,
- Comparability,
- Accuracy,
- Timeliness,
- Clarity and
- Reliability

is the responsibility of the board of managing directors of Volkswagen AG. Our responsibility is to express a conclusion on the part "key indicators" based on our assurance engagement.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000. For a limited assurance engagement this standard requires that we comply with ethical requirements and plan and perform the assurance engagement to obtain limited assurance about whether the part "key indicators" has been prepared, in all material respects, in accordance with the above mentioned criteria stated in the Sustainability Reporting Guidelines Vol. 3 of the Global Reporting Initiative (p. 7–17).

During our engagement based on the assessment of risks and materiality we gained evidence to obtain limited assurance on the compliance of the part "key indicators" with the specified criteria. We determined the nature and extent of our procedures, also on a sample basis, by using professional judgement to obtain limited assurance. Our assurance engagement included the following procedures:

- Inspection of the relevant documentation of group principles, management and reporting structures as well as inspection and random testing of existing documents and systems for sustainability data ascertainment, analysis and aggregation
- Discussions with the team commissioned with the preparation of the Volkswagen Group Sustainability Report

- Discussions with employees of the group divisions Health and Safety, Procurement/Environmental Protection, Future-Research and Trend Transfer, Coordination CSR and Sustainability, Logistics, Human Resources, Legal Affairs, Environmental Management, Environment Protection/ Product, Environmental Regional Conferences, Environment Strategy
- Obtaining an understanding of the project of evaluating the Sustainability Report 2005/2006 by stakeholders and understanding of the topic finding process for the Sustainability Report 2007/2008
- Inquiries and inspections of documents at the locations Wolfsburg, Hannover, Ingolstadt and Anchienta regarding the sustainability data of the corresponding operating sites as well as sustainability data of the brands Volkswagen, Audi, SEAT and Lamborghini

Regarding the environmental data we could also access the data and information of the regular audits according to ISO 14001 and the EU Eco-Management and Audit Scheme (EMAS) at most of the development and production locations of Volkswagen AG during our engagement.

Our assurance engagement only relates to the German version of this Sustainability Report.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in a reasonable assurance engagement. Accordingly, we do not express a positive opinion on the part "key indicators".

Based on our limited assurance engagement, nothing has come to our attention that causes us to believe that the part "key indicators" of the Sustainability Report 2007/2008 has not been prepared in all material respects in accordance with the above mentioned criteria stated in the Sustainability Reporting Guidelines Vol. 3 of the Global Reporting Initiative (p. 7–17).

 $\label{eq:coopers} Price waterhouse Coopers \\ aktienges ellschaft \cdot wirtschaftsprüfungsges ellschaft$

Dietes &

WP Heino Wehran

ppa. Dieter Horst

Hannover, August 1st, 2007

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Contacts and Credits

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At Volkswagen AG, development work on all our models never ceases, so please allow for the fact that changes in design, equipment and technical specifications may be made at any time. Consequently, the data, images and descriptions in this report cannot give rise to claims of any kind.

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Volkswagen AG

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Environment

Germany

August 2007

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GRI Content Index

The present Volkswagen AG Sustainability Report takes full account of the reporting guidelines of the Global Reporting Initiative (GRI). The Report complies with the highest GRI application level (A+). This was confirmed by the GRI in the course of an inspection.

The GRI Content Index lists those standard indicators from the current GRI Guidelines (G3) on which Volkswagen reports, and shows where the relevant information can be found in the Sustainability Report 2007/2008, on the Internet pages or in the Volkswagen AG Annual Report 2006. Italics indicate supplementary indicators.

On the Volkswagen AG Group Sustainability Portal www.volkswagen-sustainability.com you will find an extended GRI Index complete with links. This also provides information on why Volkswagen AG does not report on specific indicators and instead selects its own focal points. In addition, the extended index documents the fact that our sustainability reporting already complies to a very large extent with the requirements of the draft version of the Automotive Sector Supplement to the GRI from 2004.

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1–80: Page in Sustainability Report C1–C8: Cover page in Sustainability Report AR 1–198: Page in Annual Report 2006 GP: Group Portal www.volkswagenag.com GSP:

Group Sustainability Portal www.volkswagen-sustainability.com

BP:

Brand Sustainability Portal (Volkswagen) www.mobility-and-sustainability.com

Status

fully reported

- partly reported
- not reported

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