

Fit for the future

Corporate Social Responsibility Report 2006



Disclaimer



Readers' guide

This report contains the CSR performance of Akzo Nobel in 2006. We trust it gives a balanced and fair picture of our objectives and results in this area. Since we accelerated our CSR agenda in 2004, the number of policies, examples and best practices has grown rapidly. It is no longer possible to give an exhaustive overview of them all while maintaining the readability of the report. We have therefore chosen to put many of these examples in a special section of our website. This report will give a good overview of our CSR performance. Stakeholders seeking more detail are referred to our website: www.akzonobel.com



Our company

Akzo Nobel is a multicultural organization serving customers throughout the world with coatings, chemicals, and human and animal healthcare products. We employ around 62,000 people in more than 80 countries.

We are a Fortune Global 500 company and are listed on both the Euronext Amsterdam and NASDAQ stock exchanges. We are also included on the Dow Jones Sustainability Indexes and the FTSE4Good Index.

Consolidated revenues for 2006 totaled EUR 13.7 billion.

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Additional information

For further information on key areas highlighted throughout this report, please visit our website: www.akzonobel.com/csr

Foreword



Dear Reader,

To me and my colleagues on the Board, corporate social responsibility is at the heart of our business. We are happy to see that in society at large sustainability issues are high on the agenda. At Akzo Nobel we understand the dynamics of CSR and we are continuously improving its contribution to our company.

Real progress is being made continuously and the integration of CSR in our processes has reached a “natural” next level. We have made CSR a part of our internal audits. This is the final step towards “closing” the management cycle. Sustainability is an inherent part of our processes, from our management objectives to our operational planning and from our governance, to risk management and compliance. All businesses must set ambitious targets during the strategic planning processes and monitor progress throughout. Managers and employees are evaluated and remunerated against these targets.

It is most rewarding to see how our businesses are creating new opportunities and competitive advantages by further integrating CSR into their daily work. In 2006 we have, for example, taken a systematic approach to eco-efficiency from a business perspective. We have found many examples of how we can create more value while lowering our ecological footprint. It is our ambition to fully embed the concept of eco-efficiency analysis in our businesses, and I am sure that we will continue to evolve towards an ever more sustainable product portfolio.

Leveraging the potential of Akzo Nobel can only be done by our employees. Developing our workforce, offering opportunities and challenges and stimulating entrepreneurship are what we consider to be part of our management priorities. Systematic talent development increases job satisfaction and the productivity of our employees. It also stimulates company pride. In many meetings with Akzo Nobel staff I have noted that they regard our CSR agenda as something to be proud of.

Producing better results in CSR also means that we need to have a thorough understanding of what our stakeholders expect from us. Next to the opinions and expectations of shareholders, business partners, clients and employees that matter, an even broader group of stakeholders, such as governments and local communities, are also a part of our ecosystem. We do have regular dialogues with representatives of many different organizations. The objective is always to support our business processes and strengthen our "license to operate".

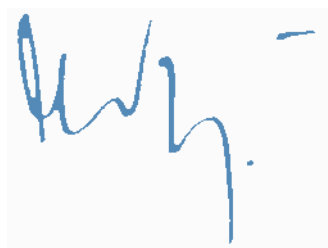
Experimenting is crucial in developing CSR. Many opportunities need to be explored and measurements need to be refined. We have a portfolio of initiatives in which we participate. The embedding of the new Global Responsible Care Charter in our businesses and our participation in global energy efficiency benchmarks are examples of such projects. We will continue to invest in projects that improve the value proposition of CSR.

Value creation means much more than focusing on financial numbers. To me it is about defining and refining the company's fitness for future. As you may know we developed a comprehensive and highly focused strategy that intends to outpace our growth in selected markets. Managing sustainability opportunities will continue to be crucial to our strategy and long-term success.

On behalf of the Akzo Nobel Board of Management and the entire Akzo Nobel workforce I would like to present you with our new CSR report, which was prepared in line with the Global Reporting Initiative G3 Guidelines. We hope that it will contribute to your appreciation of what we are trying to establish.

Let me conclude by expressing my gratitude to everybody who has traveled with us on the CSR road to where we are today. I'm optimistic about the journey ahead of us. It is not always going to be easy. But I'm sure we share a commitment for continuous improvement and a determination to succeed.

Akzo Nobel Board of Management



Hans Wijers
CEO

CSR at the heart of our business



Akzo Nobel is committed to excellence in all aspects of its global activities. For several years we have been improving our CSR performance continuously. Up to 2006 we have focused on building the CSR house. A consistent CSR policy framework and management system has been developed.

- The main components of Akzo Nobel's current CSR policy and dedicated sub-policies have been implemented in corporate functions and business practices. The main CSR foundation is in place
- CSR key items have been defined and are managed
- CSR risk management, governance and compliance processes have been established
- CSR reporting to investors, NGOs & civil society and employees is well on track

As a signatory to the New Global Responsible Care® Charter, the leading global benchmark for our industry, we practice responsible management of our raw materials, processes and products.

This includes the safe handling of raw materials, from inspection through product manufacture and distribution, to ultimate disposal. We seek public involvement in our decision making.

Acceleration of value creation

Up to 2006	2007 and beyond
Building the CSR house Development and implementation Examples of activities <ul style="list-style-type: none"> • CSR rationale and long-term vision • CSR responsibilities and structure • Identification of key issues • Development of policies • Integration in management systems • Challenging businesses to explore opportunities • Challenging businesses to stretch ambitions • Identifying and sharing best practices across businesses • Experimenting with new business ideas and concepts • Stakeholder dialog and communication 	Acceleration of value creation Pro-activeness in the value chain Examples of activities <ul style="list-style-type: none"> • Linking CSR and business investments • Rolling out market-based eco-efficiency • Moving towards an ever more sustainable product portfolio • Sustainable manufacturing • Innovation: new products, market access • Strategic stakeholder dialog

Focus on value creation

Some might think that once the CSR structure is in place, the work is pretty much done. We do not agree: a more strategic approach focusing on value creation through CSR is crucial to our long-term success. We continue the embedding of CSR in our business.

The real challenge is to focus on unlocking value and new sources of competitive advantage. In order to achieve this, business and line managers will play an ever more prominent role in rolling-out our CSR agenda. Identifying opportunities in the value chain, understanding market needs for sustainable products, improving access to resources and offering breakthrough innovations can only be done in the business itself.

The proof is in the businesses

Our businesses have always developed new products and anticipated market opportunities.

A market-focused eco-efficiency approach in the value chain has been adopted by our businesses and is gaining ever more momentum. Many customers recognize the sustainability advantages of our products in terms of environmental and economic benefits.

The proof of a company's CSR performance is in its core business. This, combined with the strong line management responsibilities for sustainability, has made us decide to first highlight our businesses in this report.

We know it is common practice in many CSR reports to start with corporate policies and to take on CSR "top down." However, we feel our choice is justified by the way our CSR process is evolving. After elaborating on the businesses we will report on the global Akzo Nobel perspective on company-wide sustainability items.

CSR is not only at the heart of our business; the business is also the heart of our CSR.



Akzo Nobel Coatings

As the world's leading coatings company, our businesses cover practically every application in the global coatings market. We are the world leader in marine, protective and wood coatings as well as coil and powder coatings, which are used on some of the most prestigious buildings and engineering structures.

Our paints protect and enhance a host of products, including mobile phones, furniture, snowboards, pipelines and construction machinery.

Our Coatings business is highly committed to innovation. We supply our customers with strong brands and leading technologies. Our main development efforts focus on improving protection against harmful influences such as chemical corrosion, sunlight and heat, ensuring better adaptability to meet specific customer demands, improving ease of application, aesthetic value and reducing ecological impact.

Concern for health, safety and the environment is the foundation on which our Coatings business policy is built. We adhere to the Coatings Care® regime, the leading environmental health and safety management program for coatings manufacturers around the world.

We put our principles into practice through stringent product stewardship programs that touch all areas of the

coatings life cycle: R&D, manufacturing, transportation and distribution, application technology, customer needs and service, and ultimate disposal.

We are constantly improving the safety of our products by reducing and wherever possible eliminating raw materials of concern as well as Volatile Organic Compounds from our formulations.

All businesses organize extensive training of their customers in safe handling and application of our products. Each business has a product safety database, which records risk classifications of chemicals and produces safety data sheets in all required languages and formats.

You will find many examples of these improvements in the following sections.

Akzo Nobel Coatings

Decorative Coatings Europe and Decorative Coatings International

Examples of progress in the value chain

- A reputation for reducing solvent contents ahead of legislation
- Conversion of wall paints to water-based ingredients
- Continual development of water-based formulations for wood paints and varnishes
- Comprehensive safety and health information for solvent-based formulations
- Extensive training programs for professional painters

Highlights 2006

- Introduction of Rubbol XD, an innovative product for exterior painting: guaranteed extended lifetime of up to six years
- Introduction of Sandtex: an extremely durable exterior coating based on nanotechnology
- Introduction of innovative and environmentally-friendly packaging concept that prevents waste

Next steps

- Wood paint and varnishes: 33% waterborne by 2010 (15% in 2000)
- Focused processes and products that lead to less raw material consumption in the value chain

Our Decorative Coatings business produces and sells worldwide a full range of coatings for interior and exterior home decoration, as well as home protection, for the professional and the do-it-yourself market. We offer a whole range of services that include mixing machines, color consultation and training courses for painters and craftsmen.

Colorful embellishment and product safety

Our decorative paints have an excellent reputation for protection and durability. Since the organic solvents contained in classical paints may constitute a health hazard, especially in professional painting with prolonged exposure times, our Deco business has for many years worked to reduce the organic solvent content of paints, ahead of new legislation on the reduction of volatile organic compounds (VOCs). Wall paints have now been converted to water-based ingredients and we continue to develop water-based formulations for wood paints and varnishes. We provide comprehensive safety and health information for solvent-based formulations. In many countries we have extensive training programs for professional painters, such as teaching them the best way to use protective equipment.

Product innovation

Within Decorative Coatings, one focus area is reducing Volatile Organic Compound (VOC) solvents from wood paints and varnishes. ⁺ For this paint category, we expect that 33% will be waterborne in 2010, compared to 15% in 2000. The VOC solvents are either replaced with water-based products or removed from the formulations.

We are reducing and eliminating raw materials of high concern. A program has been set up to eliminate any product containing raw material that is under discussion because of its suspected negative HSE performance.

We are developing products and processes that lead to less raw material consumption in the value chain, for example, through

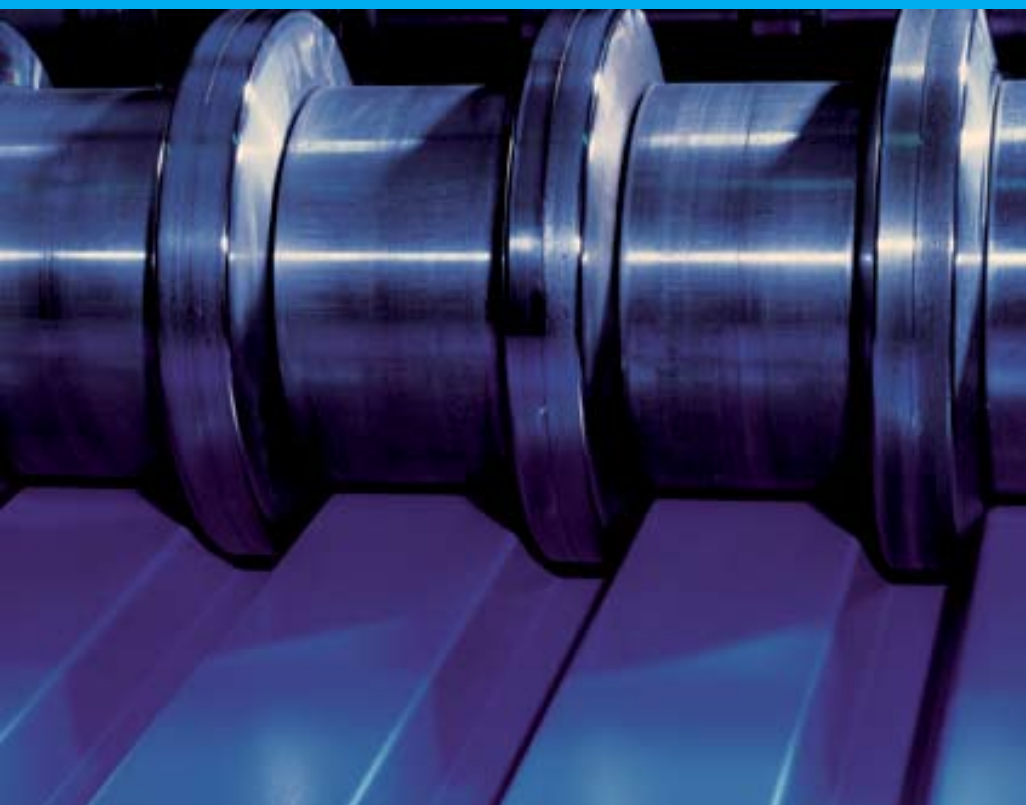
improved durability and reducing waste. Where possible, we are switching to renewable raw materials. And we promote and support technologies, such as the Accoya™ project, ⁺ that chemically modify lower-quality softwood to replace tropical hardwood.

Our paint systems provide high protection levels to these softwood materials.

Sustainable activities in 2006

Rubbol XD, an innovative high-solids product for exterior painting, was introduced to the market. Its innovative binder concept greatly enhances outdoor durability: an extended lifetime of up to six years is guaranteed, greatly reducing the frequency of maintenance and repainting. We also launched Sandtex, an extremely durable exterior coating based on nanotechnology.

An innovative and environmentally-friendly packaging concept consisting of a paint can with integrated roller tray was introduced in various European countries. The rectangular paint can has a lid which transforms into a paint tray when opened, meaning no paint is wasted and no cleaning is required. In the Dutch market alone, using this can will eliminate roughly 2.5 million liters a year of waste water and save 60,000 liters of paint.



Pelex project: Zero solvent emission coil coating

The Pelex project aims to convert existing solvent-based coil coating paint formulations into formulations with zero solvent emissions. Water will replace the current solvents used as diluents to allow high-speed paint application.

Industrial Activities: Industrial Finishes

Examples of progress in the value chain

- “Cool Chemistry Coatings” for buildings that have high solar radiation reflection and offer multiple environmental and economical benefits
- “Pelex project” aims to convert existing solvent-based coil coating paints into formulations with zero solvent emissions
- “Going for green project” in wood coatings
- Adhesive products that allow customers to switch to fast-growing woods

Highlights 2006

- Development of two waterborne coatings for kitchen cabinet industry
- Customer support in Specialty Plastics and Wood and Coil Coatings on information for regulatory compliance
- Strategic alliance of Industrial Finishes and clients using spray equipment

Next steps

- Expanding on nanotechnology advantages to reduce material consumption by extending product life expediency and improving wear resistance

Industrial Finishes produces and sells factory-applied coatings for metal, wood and plastic products and wood adhesive systems and resins for industrial use. Our business is split up into the following four segments:

Coil coatings

Akzo Nobel is the world market leader in the development and supply of coil coatings. Coil coating is arguably the most effective method to ensure consistent, high-quality protection and decoration of metal substrates. Coil-coated products are traditionally most dominant in the building and construction market, but there are many other application areas such as

castings for domestic appliances and truck trailer bodywork. For buildings, our Coil Coatings business supplies so-called “Cool Chemistry Coatings”, which have an extremely high solar radiation reflection. This reduces energy consumption in buildings and so lowers costs, while protecting natural resources and helping reduce greenhouse gas emissions. The Pelex project+ aims to convert existing solvent-based coil coatings paint formulations into formulations with zero solvent emissions.

Wood coatings

Akzo Nobel is the leading global supplier of wood coatings. Forests are renewable, so with proper management and efficient utilization, the wood industry has a continuous supply source. We have launched Going for Green, a project to combine the most advanced principles of environmental architecture with the latest developments in environmentally-friendly wood finishing.

Akzo Nobel Coatings

Specialty plastics

We provide coatings for all kinds of plastics that not only enhance aesthetics, but also increase performance. Some of the major product markets for plastic coatings include consumer electronics, sports and leisure, and cosmetics packaging.

Adhesives

We develop, produce and sell wood-adhesive systems and resins for industrial use. Our products facilitate the switch to new superior building and construction materials based on fast-growing woods, such as bamboo parquet flooring and wood fibers and chips such as MDF and chipboards. All business segments develop and reformulate their products to meet stricter environmental regulations including low VOC, low Hazardous Air Pollutants (HAPs), eliminating raw materials of high concern and introducing low-energy UV-curing products.

Innovation for sustainability

Our R&D group has developed two UV waterborne coatings for the kitchen cabinet industry. ⁺ Another area of product development is in the use of ultra-low formaldehyde-based adhesives for wood composite applications. ⁺ In Sweden, our Adhesives R&D group is working on developing an adhesives system with a highly ecologically-friendly profile. ⁺

One of the tools we use in our product development is nanotechnology. ⁺ This offers superior ecological performance, which not only means lower environmental impact and elimination of raw materials of high concern, but also reduces material consumption by extending product life and improving wear resistance.

Two interesting examples:

- Adhesives: the road to safe and environmentally benign adhesives ⁺ for the upholstery, mattress and foam industry
- PET soft drinks bottles recycling ⁺ to reduce pollution and replace raw materials

Product stewardship and coatings care

In our Specialty Plastics and Wood and Coil Coatings businesses, we increased support to our customers in 2006 by improving systems that generate information for their regulatory compliance.

In developing paint mixtures, our chemists and paint formulators are supported by a fully automated raw material and formulation information system, which enables them to see all the properties of the raw materials. They can then select ingredients that offer the right combination of paint performance required by the customer and minimize risks associated with final coatings formulations.

In managing the reduction of materials of high concern, our business scans the purchasing system quarterly to verify the removal of substances such as coal, tar, lead driers, cadmium stabilizers and pigments.

Value chain management

Industrial Finishes has formed a strategic alliance with a customer and equipment supplier to develop a recyclable coatings application for kitchen cabinets. Our sales and marketing group identified an opportunity for new business if we could successfully develop an almost 100% UV coating for kitchen cabinet applications where excess spray is collected and returned to the spray gun. Our R&D group worked closely with a spray equipment supplier to design a recirculation system. Since this coatings technology is new and based on acrylic chemistry, which differ from current alkyd-melamine, customer acceptance plays an important role. This technology is a slow step-by-step change process. The system will offer customer benefits in the form of lower energy consumption, increased productivity, a near absence of VOCs and a major reduction in hazardous waste.

Industrial Activities: Powder Coatings

Examples of progress in the value chain

- Often product of choice because powder coatings consist of 100% solids and therefore no organic solvents emitted into the air
- Innovation focused on reducing and eliminating raw materials of high concern, making powder coatings applicable to wider range of products to further reduce VOC use, and developing products and processes that reduce energy and raw material consumption in the value chain

Highlights 2006

- Re-establishment of product stewardship working group
- Chemical leasing project in Egypt

Next steps

- Program to reduce formaldehyde, which is contained in some specialist resins, anticipating new legislation
- Commitment to further reducing the powder cross linker TGIC

Our Powder Coatings business produces and sells 100% solids powder coatings and non-stick coatings. Its European distribution and service organization Cromadex sells these products to small- to medium-size industrial applicators.

Good for health, safety and the environment

In many applications, powder coatings are the product of choice because they consist of 100% solids and therefore emit no organic solvents into the air. Powder coatings are typically applied in the controlled environment of a customer's purpose-built application facility, which adds further benefits including reduced paint waste, controlled releases to air and reduced rejects.

Product innovation⁺

Powder Coatings innovation focuses on three areas. The first is reducing and eliminating raw materials of high concern. The second is making powder coatings applicable to a wider range of products to help further reduce VOC use. New formulations that can be cured at lower temperatures allow further substitution of liquid paint in areas such as plastics and wood products. Another application is the development of an acrylic powder coating for automotive alloy wheels. The third focus is developing products and processes that reduce energy and raw material consumption in the value chain.

Sustainable activities

Woodcote TE, a formulation that allows curing at 140° Celsius for 15 minutes, is a fine example of powder coatings being made applicable to a wider range of substrates. The low curing temperature makes Woodcote TE highly suited to coating modern wood products such as MDF. It has been applied, for example, as a coating for the workstation surfaces in the new Melbourne City Council building, Australia's most ecologically sound building.

We pursue various ways to reduce energy and raw material consumption in the value chain. Developing extremely durable coatings with small layer thickness, such as Interpon XTR,⁺ reduces raw material consumption.

Product stewardship and coatings care

We have implemented a product stewardship management system (PSMS) to ensure the responsible management of the health, safety and environment aspects of a product throughout its life cycle. A PSMS working group was re-established in 2006 in anticipation of significant forthcoming regulatory changes in Europe (REACH) and globally (GHS – Global Harmonized System). We apply the Akzo Nobel Coatings raw materials policy statement, in which the following raw materials are defined as “high concern” for human health.

Work continues to reduce them further, as shown by the following examples:

- Lead pigments: these have been eliminated from our production, except for the joint venture in Egypt. Alternatives to lead-containing PVC are being actively pursued
- Respirable crystalline silica (RCS): all sites have eliminated RCS except the Reutlingen site, for which a business case is available and acceptable controls are in place
- Strontium Chromate: a single customer of our U.S. non-stick business uses products containing this, with the product made under controlled manufacture at the Marine and Protective Coatings site in Waukegan
- Formaldehyde: likely to be classed as high concern in 2007, this is contained in some specialist resins, notably in liquid paint. A program to reduce this as far as possible will be agreed with R&D

“Materials of concern” within the business unit include the powder cross linker TGIC. This material has been eliminated in Europe, where its toxic classification and stringent legislation were significant factors, but is still widely used in Asia and the Americas, where it is not regarded as toxic. We remain committed to reducing the use of TGIC wherever practical.

Perfluorooctanoic acid (PFOA) is a processing aid used in the manufacture of fluorocarbon polymers such as PTFE, which among many other uses provides non-stick surfaces for cookware. The U.S. Environmental Protection Agency has commissioned studies and is expected to characterize PFOA as a “likely” or “suggested” carcinogen. Tests commissioned by our Non-Stick unit confirm that no detectable PFOA migrates from the final coating during use. A position statement can be found at www.an-nonstick.com/statement.htm. Nevertheless, Non-Stick is seeking to reduce use of PFOA-based materials in its coatings.

Akzo Nobel's Powder Coatings sites are encouraged to include waste reduction programs within the framework of their Environmental Management Systems. An accepted hierarchy has been established to try to minimize waste at source followed by re-use options (such as recycling, energy recovery, composting) and finally disposal options (landfill or incineration without energy recovery). This contributes considerably to Akzo Nobel's overall non-reusable waste reduction. This in turn, has helped significantly reduce raw material consumption. The knowledge gathered in this program has been used to optimize other parts of the value chain.

A unique cooperation was started by Akzo Nobel Powder Coatings SAE in Egypt, in which Powder Coatings has a 60% stake. Together with several key customers, we began a so-called chemical leasing project,⁺ in which Coatech supports the whole stream of powder coatings at customers' plants and customer product losses and waste are reduced significantly. Payment based on customer performance is under discussion, such as square meters covered instead of kilograms sold.

Akzo Nobel Coatings

Marine & Protective Coatings

Examples of progress in the value chain

- Sustainability a key driver for development of the value chain; from customers to raw material and paint suppliers
- Development of formulations ahead of upcoming legislation, e.g. on VOC content and in antifouling
- Active participation in national and international bodies on coatings sustainability

Highlights 2006

- Breakthrough (chromate-free) aerospace primer technology on the market
- Introduction of Interplate® Zero, a new, patented, water-based, weldable and over-coatable zinc silicate shop primer, which emits no VOCs

Next steps

- Ongoing efforts to remain the technology leader in this highly innovative business

Marine & Protective Coatings (M&PC) has operations in 54 countries and more than 4,700 employees. We are the worldwide market leader in marine coatings, heavy industry protective coatings, anticorrosion and high performance coatings for the yacht and aerospace markets.

The business is divided into four market segments:

- International Marine Coatings: technology leaders in non-biocidal fouling control systems, abrasion resistant coatings, ballast tank coatings and Self Polishing Copolymer (SPC) antifouling for vessels being built, repaired or maintained
- International Protective Coatings: offer an extensive range of high performance coatings for the oil, gas, chemical processing, pulp and paper, high value infrastructure, power and mining industries

- International Yacht Coatings: worldwide leaders with the Awlgrip®, International®, and Interlux® brand names, offering coatings with superb aesthetics, the latest and safest antifouling technology and the toughest protection for yachts from the smallest dinghy to the largest and most luxurious super yacht
- Akzo Nobel Aerospace Coatings (ANAC): leading global manufacturer of paint and coatings for aircraft, serving the commercial, general aviation and military markets. Extensive resources in the U.S. and Europe are dedicated to the research and development of technologies to serve the current and future needs of the industry

Highlights of safe and eco-efficient solutions

Many of our products help reduce environmental impact. For example, Intersleek® foul release coatings are free of biocides and we are developing new tin-free antifouling coatings. We are also developing a range of biocide-free and reduced biocide bottom paints for yachts in environmentally sensitive areas. Our fire-protection coatings Chartek® and Interchar® help create a safer workspace for staff in high-risk industries such as oil and gas platforms and for workers in high-rise offices.

Our products help customers in sea transport and aviation to save fuel, reducing CO₂ and SO₂ emissions with our ultra-smooth marine and aviation coatings. Examples are Intersleek® for deep-sea vessels and coatings for new-generation aircraft such as the Airbus A380 and Boeing 787. Aerospace coating concepts – such as the selectively removable system, which enables the selective chemical removal of only the topcoat during maintenance – reduce maintenance cost and material consumption.

We optimize product safety with products such as chromate-free aerospace primer technology, + and have reduced VOCs in recent developments of high performance water-based shop primers.

Innovation for sustainability

M&PC is a highly innovative business: all the aforementioned applications have been developed in the past 10 years. Recent successes are:

- Interchar®, + a new generation fire protection for architectural structures
- Chartek®, + the world's lightest epoxy intumescent fireproofing material
- Intersleek® 700, + making waves on the high sea
- Interplate® Zero, + water-based shop primer for shipbuilding
- Antifouling and bottom coatings for yachts in environmentally sensitive areas +
- Eco-efficient aerospace coatings for the future +

Product stewardship and coatings care

The M&PC business unit has a strong focus on product stewardship and has made demonstrable progress here in the past five years. Under the guidance of the worldwide M&PC product stewardship steering group, a number of processes have been implemented, including policy statements on various product stewardship issues, guidance notes for customer applications of products, employee training and design of a raw material evaluation process to aid in R&D selection of raw materials for use in new product development.

Car Refinishes

Examples of progress in the value chain

- Developing formulations ahead of upcoming legislation, e.g. on VOC content
- Developing spraying techniques and equipment for our customers to reduce paint quantities, raw materials, waste and costs
- Active participation in national and international bodies on coatings sustainability

Highlights 2006

- Cooperation with the U.S. Environmental Protection Agency's Design for the Environment to develop and communicate standards for collision repair shops
- Reduction of waste generation in Mexico by 40 tons per year and recuperation of 75% of the total amount of waste solvent
- Aquifer installation at Sassenheim site

Next steps

- Increased resources on developing chrome (VI) free priming systems

Akzo Nobel Car Refinishes is a world leading supplier of car repair, commercial vehicle and automotive plastic coatings. For car repair we offer Sikkens as the top-of-the-range brand, synonymous with quality, innovation and the highest level of services to the bodyshop, as well as a number of brands for other segments of the car repair market, such as Lesonal and Dynacoat. For commercial vehicles, we offer a complete approach with the dedicated Sikkens Autocoat BT brand. Automotive plastic coatings are offered under the Akzo Nobel brand.

Sustainability has become a key driver for development of the whole value chain including customers, raw material and paint suppliers. An important issue is developing formulations ahead of upcoming legislation, e.g. on VOC content, which at the same time require less energy in curing and lower use of raw materials of concern. We develop spraying techniques and equipment for our customers that save on paint, money, raw materials and waste.

Innovation for sustainability

Within Car Refinishes, the main R&D focus is on developing technologies that lead to compliant products, such as reduced VOC emission and elimination of toxic raw materials. At the same time, we help our customers run their processes as profitably as possible. This means devoting attention to waste reduction, improved efficiency and reduced material and energy consumption. We have a technology based on product stewardship and eco-efficiency principles, which enables us to propose new environmentally-friendly products that fulfill the demands of legislators and governments. We actively participate in national and international committees advising on coatings sustainability. Items are documented in a product development plan, which is reviewed monthly by the product development steering committee.

In the Automotive Plastic Coatings business, reducing VOC emissions is the main object in several ongoing projects with key customers. We are analyzing possible alternatives along with our customers in order to bring their application processes in line with the directives, while maintaining their profits. Our low-VOC technologies include waterborne primers, basecoats and clearcoats, + high solids clearcoats and primerless processes. New products based on these technologies are tailored to specific customer needs.

In our car repair and commercial vehicle business, we are switching to low-VOC product assortments + in both Europe and North America. In both car repair and commercial vehicles, we are developing chromate-free primers, and in car repair we foresee a complete switch to chromate-free wash primers in 2007.

Product stewardship, coatings care

We have a global product stewardship steering team to implement and coordinate our product stewardship policy worldwide.

Our raw materials policy enshrines elimination and substitution timetables and bans "high concern" raw materials for new product development. The steering team, which reports to our management team,

monitors the use of "concern" raw materials. Product safety data sheets and labeling, customer training schools, literature and presentations are continually reviewed, adapted to the most recent legislation and improved. Our product development plan includes a program to eliminate the use of chromates (Cr VI) for anticorrosion products. In addition, we are preparing ourselves in Europe for the adoption of REACH.

Customer training and overall support is a second cornerstone of our product stewardship program. Our 2004 CSR Report stated that over 35 years, we had trained 100,000 bodyshop workers in our 65 Car Refinishes instruction centers around the world. Within Car Refinishes North America, we now go one step further. We are working closely with the Environmental Protection Agency's Design for the Environment (DfE) + to develop and communicate best practices standards for collision repair shops + that will help them implement environmentally responsible practices while maintaining profitability.

HSE management

Successful efforts to reduce emissions, waste and energy consumption in our processes are ongoing. A noteworthy example is Mexico, where waste management improvements, including the re-use of solvent drums, have reduced waste generation by 40 tons per year. We have reached an agreement with a local Mexican solvent supplier to improve efficiency in the solvent recycle process. Around 75% of the total amount of waste solvent is now recuperated. Non-reusable hazardous waste has been reduced by processing, at nearby cement companies, all hazardous solid and liquid waste as alternative fuel or an integral part of the product. At two sites in the Netherlands, an aquifer installation + came on stream in 2006, reducing drinking water consumption and significantly cutting energy consumption and related CO₂ emission.



Akzo Nobel Chemicals

We are a global supplier of a wide range of chemicals used in the manufacture of many everyday products. Our name may not be on all the end products containing substances and materials we manufacture, but our contribution remains crucial.

Items that could not be made without our chemicals include electronic devices, medications, disinfectants, detergents, soaps, plastics, ice cream, soups, paper, paints, glues, asphalt – even golf balls.

We are well aware that there is a general scepticism about the chemical industry and we share industry-related concerns on topics such as the management of hazardous substances, environmental

contamination, energy efficiency, greenhouse gas emissions, safety, health and security, and waste disposal.

We will continue to improve our HSE performance and meet or exceed the legally recognized standards for environmental performance.

Akzo Nobel Chemicals

Pulp & Paper Chemicals

Examples of progress in the value chain

- Optimizing the total pulp and paper value chains together with customers
- Building “chemical islands” on customer sites, thus optimizing the supply chain and eliminating transports of hazardous chemicals
- More than 85% of Eka Chemicals’ power consumption (biggest energy consumer within Akzo Nobel) is based on zero carbon sources
- Commitment to sustainable forestry

Highlights 2006

- Bureau Veritas Certification pronounced worldwide implementation of Responsible Care as satisfactory
- Worldwide customer satisfaction survey: positive outcome

Next steps

- Products and techniques that improve the use of fiber and energy in pulping processes
- Enhanced cooperation with customers to optimize the supply chain

Eka Chemicals, our Pulp & Paper Chemicals activity, is the leading global supplier of bleaching chemicals with its sodium chlorate, hydrogen peroxide and chlorine dioxide products. These chemicals account for about half its revenues. The rest comes from paper chemicals and specialty products.

Bleaching chemicals – sustainable solutions for the pulp and paper industry

With its industry knowledge, Eka is more than “just” a supplier of products for the pulp and paper industry. Together with its customers, Eka has optimized total pulp and paper value chain. We assume responsibility for the production of bleaching agent chlorine dioxide from sodium chlorate on customers’ sites, thereby reducing the chemicals handled. This cuts costs and improves safety.

We build “chemical islands” on customers’ sites, thus optimizing the supply chain and eliminating transports of hazardous chemicals.

A complete range of wet end paper chemicals

Eka is a leading supplier of paper chemicals, used in the wet section of the paper machine, with a complete range for both acid and neutral systems. Functionality includes retention, dewatering, sizing, dry strength enhancement, wet strength enhancement and softening. Innovations introduced to the market in recent years include a high purity wet strength agent, from which all chlororganic impurities have been removed. The agent is used in producing high quality papers, such as for coffee filters. Eka has also developed a sizing agent (sizing products make paper water repellent and printable) which is completely free of organic solvents. A production plant in Trollhattan, Sweden, was built to produce a solvent-free intermediate for these paper chemicals, which poses fewer risks to health and the environment.

Specialty products – sustainable solutions in other markets

Some examples:

- Separation products: a range of silica-based products for high performance liquid chromatography (HPLC) under the name Kromasil⁺
- Permascand: ⁺a leading producer of electrodes and other equipment for the electrochemical industry
- Industrial specialties: these include colloidal silica, which is used for several industrial purposes. The so-called nanosilicas Bindzil and Nyacol are used, for example, in the electronics and cement industries
- Purate: ⁺a system for generating chlorine dioxide to disinfect water. Microbiological treatment and bleaching of non-wood fiber
- Expancel: this stands for expandable very light microspheres, which have a variety of applications in rubber materials, in textile printing and in plastic molding. Expancel is also used as a filler in paper and board

Eka Chemicals: main energy consumer in Akzo Nobel

Energy is one of the most important resources in manufacturing pulp and paper chemicals. Eka Chemicals, as a leading supplier to the pulp and paper producers, is Akzo Nobel’s top energy consumer, accounting for 52% of the company’s total energy use.

More than 85% of Eka Chemicals’ power consumption is based on zero carbon sources such as hydro and nuclear power. Obviously, the use of renewable energy sources is a key factor for the long-term success of this industry sector.

In order to improve energy efficiency, Permascand is developing an activated cathode which may save up to 8% of electric energy consumption in the energy-intensive production of chlorate.

Product stewardship and responsible care

Because of our close cooperation with customers, product stewardship and responsible care are deeply ingrained in Eka’s business philosophy.

One example is Eka North America’s Product Stewardship Evaluation Program: as part of our membership of the American Chemistry Council (ACC) and our commitment to its principles, such as Responsible Care, we have set up a team of approximately 40 product stewardship evaluators.⁺

Our endorsement of responsible care principles includes our commitment to work with partners who, as part of any agreement regarding investment by Eka in a pulp production unit, apply certain principles on using sustainable forestry products as is summarized in an Akzo Nobel position paper. At the Veracel pulp mill, owned by our customer Stora Enso and Aracruz, for example, Eka has its largest chemical island. The plantations are ISO 14001 certified and have also been certified according to the Brazilian forest certification system CERFLOR. Preparations for FSC certification have begun.

In 2006, we asked Bureau Veritas Certification (formerly BVQI) to assess the implementation of responsible care at our various sites. The November 2006 BVC Report pronounced our worldwide implementation of responsible care "satisfactory." Our sites in the United States, where there is an official responsible care standard, have been assigned a responsible care certificate.

Improving customer satisfaction

In 2006, a worldwide Customer Satisfaction Survey, based on 229 interviews in 25 countries with existing and potential customers in the pulp and paper industry, was conducted. According to customers, Eka's main strengths were products, strong relationships and technical support. Customers also indicated that they would appreciate more information and communication about Eka's total offering and its innovation and development concepts. Based on the customer feedback, we have listed possible actions for a number of mentioned improvement areas. We are currently discussing the improvement areas with customers and will decide on actions together with them. These can be general, as well as region- or customer-specific.

Base Chemicals

Examples of progress in the value chain

- Various business of which Eco Systems is specialized in eco-chemicals
- Produced electrical power sold to public grid

Highlights 2006

- Eco-efficiency studies Rotterdam PVC chain
- Realignment production Base Chemicals and elimination of structural chlorine transport by rail in the Netherlands and optimized energy efficiency of processes

Next steps

- Developing hydrogen fuel cells in cooperation with Nedstack
- Visible effects of logistical excellence project

Our Base Chemicals business produces and sells energy, salt, chlor-alkali products and derivatives. Its products are used in various industries, such as detergents, pulp and paper, plastics, glass, medicines, textile and in disinfectants for swimming pools. There are four business segments: energy, salt, chlor-alkali and ecosystems, the first three operating as one business cluster.

Business cluster Salt, Energy and Chlor-alkali

The steam produced by our highly energy efficient Combined Heat and Power Plants is mainly used by our Salt operations. Part of the electrical power produced is sold to the public grid. The salt produced is mainly used as input for our chlorine production. A smaller part of our salt production is sold as road salt for de-icing purposes. Our Chlor-alkali plants produce chlorine and caustic lye. Chlorine is used as a raw material for many products, but its main use is in producing vinyl chloride, which is a raw material for PVC. Our largest chlorine plant is located in Rotterdam, the Netherlands. Its location on the same site as its principal customer, the VC plant of Shin-Etsu, allows a very energy and raw material efficient operation of the process value chain.

Eco Systems

Our Eco Systems business is specialized in eco-chemicals – products and processes that enable re-use, recycling and purification. Its main products are: water treatment chemicals such as ferric chloride and sodium hypochlorite, dimethyl ether, used for example as an environmentally-friendly propellant gas (alternative to chlorinated fluorohydrocarbons), and high purity hydrochloric acid, which is produced by our highly effective incinerator for chlorine-containing waste.

Sustainability of PVC and the Rotterdam PVC chain

Eco-efficiency is the concept of creating more Economic Value Added (EVA) with less ecological footprint. In 2005 we started a comprehensive eco-efficiency study to investigate the competitiveness, energy efficiency and sustainability of the Rotterdam chlorine/PVC manufacturing cluster compared with main competitors in Europe and the Middle East.

Due to the encouraging results, a second study was launched to investigate the eco-efficiency of PVC itself. The combined results of these studies, which were completed in 2006, showed that the Rotterdam chain is well positioned in Europe as a result of site-related advantages such as HCl recycling, high energy efficiency and smart use of different transport modes.

The eco-efficiency study of PVC's major market applications, pipes and window frames, revealed that of five different piping materials analyzed, PVC is the most eco-efficient pipe material for diameters from approximately 125 mm to 300 mm. PVC windows proved to be the most eco-efficient proposition out of four window types investigated, due to their low production and maintenance cost combined with their good insulation properties. Full details of the studies can be found in our "Akzo Nobel Eco-efficiency Review".

Akzo Nobel Chemicals

Ongoing improvement in energy efficiency of our processes

The Base Chemicals business is Akzo Nobel's second-largest energy consumer, after Pulp & Paper Chemicals, accounting for 23% of the total Akzo Nobel energy use. The Chlor-alkali business, Base Chemicals' core activity, completed a major production realignment project in 2006. That included closing three plants with older technology, expanding capacity at our largest chlorine plant in Rotterdam and building a chlorine plant in the Dutch town of Delfzijl. We eliminated our structural chlorine transport by rail in the Netherlands, expanded our capacity and optimized the energy efficiency of our processes.

In the early 1980s, we were one of the first chlorine producers in the world to recognize the environmental advantages and energy-saving potential of the then revolutionary technology of membrane electrolysis.⁺ The opening of our Delfzijl membrane electrolysis plant in 2006 means our overall chlorine production capacity uses more than 85% membrane technology, compared with an average of 31% in Europe in 2005. The Delfzijl plant is the first in Europe to use so-called zero-gap technology, the latest development in membrane cells.

Sustainable energy generation using a hydrogen fuel cell⁺

Pure hydrogen, a valuable energy carrier used as clean fuel in power generation and as raw material in other processes, is a by-product of our chlor-alkali and sodium chlorate production.

In cooperation with Nedstack, a Dutch company and spin-off of Akzo Nobel, hydrogen fuel cells are being developed for stationary applications.

Transport safety:⁺ a social issue

Chlorine transport by train has been a social concern in the Netherlands for years. The issue, a clear dilemma between social concerns and economics, was solved by the major production realignment project of our chlorine plants, which was completed in 2006.

Outside the Netherlands we set a new standard for the safety of chlorine transport by investing in a fleet of newly developed crash protected rail tank cars, which have a number of important additional safety features compared with the existing rail tank cars.

Logistic excellence⁺ – greener road transport

Base Chemicals started a program in February 2005 to achieve logistical excellence. A first phase quick scan indicated cost reduction opportunities were large enough to warrant further investigation. The study's recommendations are being implemented and the full effects will be visible in the course of 2007.

Behavior-based safety⁺

Base Chemicals is one of Akzo Nobel's champions in a special program to improve behavior-based safety to decrease the number of work-related accidents in 2010 to less than a quarter of the current number.

Functional Chemicals

Examples of progress in the value chain

- Many products vital to creating sustainable and ecologically superior solutions
- Clients appreciate non-hazardous materials for not requiring special safety measures
- Products help ensure durable insulation, saving energy in buildings

Highlights 2006

- Ferrazone received official acceptance from the U.S. FDA
- Worldwide customer satisfaction survey of Cellulosic Specialties business: positive response from large majority

Next steps

- Marketing of alternative film bleaching process in Hollywood after success in India

Our Functional Chemicals business manufactures and sells a variety of chemical intermediates, formulation ingredients and/or process aids globally. Besides being the world's largest supplier of mono-chloroacetic acid (MCA), we are a major producer of ethylene amines, chelates and micronutrients including salt specialties, cellulosic specialties and sulfur-based products, including polysulfides.

Chemicals that help create sustainable solutions

Many of our products are vital to creating sustainable and ecologically superior solutions. Our polysulfides, for example, are manufactured and sold as the main ingredient for high performance sealants in industries such as the glass industry. Having an excellent price/performance ratio, they are also valued by our customers for not being a hazardous material and thus not requiring special personnel safety measures during application. Above all, thanks to their outstanding weatherability and long-lasting gas tightness, they help ensure durable insulation, saving energy in buildings.



Dissolvine® iron chelates

Dissolvine® iron chelates have found a niche application in motion picture processing in India. While the conventional cyanide film bleaching process used all over the world may be effective and inexpensive, it comes at a heavy environmental price. Dissolvine® is a non-toxic and inexpensive alternative. Moreover, it also improves the quality of the image.

Another example is our trace element chelate-based micronutrients, which won the International Horticulture Award at the International Conference and Exhibition on Soilless Culture held in Singapore in 2005. Our “excellent contribution toward promoting plant nutrition technology as a futuristic, environmentally-friendly technology for growing plants” drew praise.

Innovation for sustainability

Innovation is a carefully managed process within Functional Chemicals. During product development, the environmental profile of new products is evaluated.

We have helped develop an alternative film bleaching process based on our Dissolvine® iron chelate product, which is non-toxic and inexpensive. While the conventional cyanide film bleaching process used worldwide may be very effective, it comes at a heavy environmental price. Cyanide is well known as a toxic agent and its by-product, hexavalent chromium, is extremely harmful to marine life.

The new application has been introduced in the movie industry in India, where two of the three major film processing labs are using it and the third is conducting extensive tests. The new bleaching method makes it unnecessary to install expensive effluent treatment systems, which are required by the Indian Pollution Control Law when using the old method. Given the success of this process in India, we have started marketing in Hollywood.

We have also introduced a new biodegradable chelating agent, Dissolvine® GL. +

Food fortification against micronutrient deficiency

Ferrazone, + an iron chelate which addresses iron deficiency in human nutrition at a minimal cost, received official acceptance from the U.S. Food and Drug Administration (FDA) in 2006. Although Salt Specialties activities in iodized salt remain focused on our existing markets, mainly in Europe, there is a link between iodized salt and emerging markets: we

support UNICEF projects in Indonesia by providing knowledge aimed at improving the supply of adequately iodized salt to the population. We are also developing double fortified salt (DFS) aimed at simultaneously addressing iodine deficiency and iron deficiency anemia. In cooperation with our Chelates business, Salt Specialties has developed a simple, cost-effective premix which contains Ferrazone as an iron source. Depending on the market situation, the premix is combined with locally produced salt to obtain the required DFS product.

Salt Specialties is exploring business options for DFS in India and is looking into a second version of DFS. Fortifying salt with selenium and iodine is a potentially promising opportunity to use salt as a cost-effective carrier to mitigate the fast progress of HIV to AIDS. Technologically, the same premix concept is followed as with the iron/iodine version. The concept is still in an early development phase. First contacts with health and nutrition authorities and institutions in Southern Africa have been made.

Akzo Nobel Chemicals

Product stewardship, responsible care

A major milestone driven by product stewardship was the opening of our MCA (monochloroacetic acid) plant in Delfzijl. We agreed with the Dutch government in 2004 to stop chlorine rail transports in the Netherlands, a decision which required chlorine production in all Akzo Nobel's Dutch multi-sites to be balanced with chlorine demand. Since chlorine is a raw material for our MCA production, we closed our MCA plant in Hengelo and built one in Delfzijl, which came on stream in July 2006.

Improving customer satisfaction

In 2006, our Cellulosic Specialties business carried out a worldwide customer satisfaction survey. The study comprised 150 in-depth interviews among Cellulosic Specialties' most important customers and distributors in 46 countries.

It appeared that a large majority of customers have a positive or very positive impression of Cellulosic Specialties. Only 7% of respondents were neutral and 1% had a negative impression of the company. "Consistent/high product quality" was mentioned as a main strength of our company. In all four areas evaluated (products, deliveries, service & support and marketing & sales), around 50% of respondents ranked Cellulosic Specialties as the most preferred supplier of cellulosic ethers, indicating a strong position in the market. On a total of five criteria, we need to make some improvements in order to meet customer expectations. One of these criteria is product-related and the other four all relate to service & technical support.

An improvement action plan based on the survey's outcome has been formulated and responsibilities for its implementation have been assigned. Participating customers have received feedback on the survey's results from an independent company which conducted it.

Behavior-based safety

On October 10, 2006, the Sulfur Derivatives LeMoyne site in Axis, Alabama, marked its 10th year of using behavior-based safety. The site has had a decade of experience in using the process and of positive benefits through protecting the health and safety of site employees. On that date, it had been almost nine years and more than 2.4 million safe work hours since the site had its last lost time injury.

Surfactants

Examples of progress in the value chain

- Majority of products based on renewable resources, such as tallow or vegetable oils
- First focus of innovation is developing products with an improved environmental profile
- Participation in several product stewardship initiatives
- Various successes in waste management around the world

Highlights 2006

- Introduction of various products, including higher-performance fabric softeners with improved biodegradability
- Successful verification of Responsible Care management system by Det Norske Veritas
- Positive outcome of global customer survey

Next steps

- Piloting of Global Harmonized System and REACH in Surfactants Europe
- Working with other members of Soap and Detergent Association on peer-reviewed risk document entitled "Exposure and Screening Risk Methods for Consumer Products"

Our Surfactants business produces and sells cationic, anionic and non-ionic surface active agents for a variety of industrial and consumer applications including household and institutional cleaning, fabric care, agrochemicals, oilfield chemicals, dispersion of inks and pigments, personal care, road paving and mining.

Enabling eco-efficient solutions

A majority of our product sales are based on renewable resources, such as tallow or vegetable oils. Many of our surfactants are less toxic to the environment and more readily biodegradable. Thanks to their action as dispersing agents (emulsifying oil and dirt particles in water), products based on aqueous solutions of our surfactants can in many cases replace products based on organic solvents. Examples include water-based coatings and water-based degreasing agents. A significant number

of recent product developments have been designed to improve the environmental profile in cleaning and oilfield applications.

Innovation for sustainability

Surfactants uses a Staged Product Development System as part of its innovation process. This requires the evaluation of the environmental profile of all new products and specifically asks whether such a product would potentially have a lower environmental impact. In addition, the R&D Prioritization Model requires our business teams to evaluate the environmental benefit of the new product for funding purposes.

The first focus of our innovation is developing products with an improved environmental profile. To support this, we are continuing to build knowledge about the toxicity and biodegradability of our surfactants. We have a good understanding of our products, their biodegradability behavior and their impact on the environment. This knowledge is critical so we can develop products tailored to meet our customers' environmental requirements. Examples that were introduced on the market in 2006 include higher-performance fabric softeners with improved biodegradability, readily biodegradable cleaning formulations for hard surfaces and a hydrotrope (dispersing aid) for degreasing with improved biodegradation properties.

Other innovative developments include oil recovery chemicals with improved biodegradability, to service the ecologically sensitive North Sea environment; alkylpolyglucosides based on sugar, a renewable raw material; an ignition improver for ethanol-based automotive fuels; alternative alkoxylation and amine technologies to meet future demands for products with improved environmental profiles, and the development of environmentally sustainable processes based on industrial "white" biotechnology.+

Product stewardship, responsible care

Surfactant products involve numerous chemistries and are used in a wide variety of applications. Although our products are not highly toxic, they are sold for some

human and environmentally sensitive applications. Product stewardship is both a responsibility and a marketing strategy. We are involved in several product stewardship initiatives alone and in conjunction with trade associations globally. We participate in Human and Environmental Risk Assessment (www.heraproject.com), a project initiated by CEFIC/AISE and Environmental Risk Assessment and Management (www.erasm.org), a joint CESIO/AISE research cooperation. In Europe and North America, we are engaged in drafting the EU and UK stakeholders list of proposed persistent bio-accumulative toxins (PBTs) and in reviewing the domestic substances list of Environment Canada. We have taken a leadership role in preparing for REACH by striving to provide further evidence to demonstrate the safety of our ingredients. We are trying to reduce the number of products to be registered by evaluating equivalents that may be more environmentally-friendly.

We are further upgrading and globalizing our current safety data sheet systems into a regulatory compliance system to meet the requirements in the forthcoming Global Harmonized System and REACH. This system will be piloted in Surfactants Europe before being rolled out to the rest of the company. In the United States, under product stewardship metrics, links are posted to hazard and risk assessment of our products on the intranet. While we do not sell directly to consumers, we are working with other members of the Soap and Detergent Association (SDA) to sponsor a peer-reviewed risk document entitled "Exposure and Screening Risk Methods for Consumer Products."

QHSE systems

Our European business has developed an all-embracing management system incorporating all Responsible Care aspects. This web-based system is SOX compliant, easily accessible and well integrated into the daily working routines of all personnel. This management system was successfully verified with regards to Responsible Care by Det Norske Veritas in February 2006.

All ten Surfactant manufacturing sites worldwide are certified according to ISO

14001 and, by spring 2007, will be certified or verified for all Responsible Care codes of management. Surfactants is the first business unit to achieve this objective which is part of Akzo Nobel's Responsible Care Global Charter. Certifications or verifications have been done by either a certifying body or local trade associations. This independent verification is another step closer to gaining public trust.

Improving customer satisfaction+

Our strategic objective is to be the first choice of our key customers in target market segments for our core technologies. Biannual business-wide comprehensive customer satisfaction surveys are carried out by an external consulting company. Based on the findings, appropriate improvement actions are initiated.

The latest global customer survey was carried out in early 2006 and comprised 400 in-depth interviews among our key customers and distributors in 53 countries. In all four areas investigated (products, supply chain services, service & technical support and sales & communication) performance over the past two to three years was positive, according to customers. Consistent or high product quality is considered our main strength.

Other strengths mentioned include wide product range, up-to-date technology and good service, including after sales. For the important area of supply chain services, the quality level was consistent, but showed room for improvement. Follow-up will be tailored to a segment and regional level.

HSE management

Reducing environmental emissions to water and air and reducing waste have proved successful as we improve our production processes. Recent successes include our surfactant plant in Morris, Illinois, which produces an intermediate for a household detergent. Here, waste was reduced by 75%. At our surfactants plant in Itupeva, Brazil, where quaternary ammonium salts are the core product, annual VOC emission+ was reduced from 400 to 55 tons. Another strong example is a project for vapor collection+ in Saskatoon, by which odor complaints will be eliminated.

Akzo Nobel Chemicals

Polymer Chemicals

Examples of progress in the value chain

- Re-evaluation of all products and processes with ultimate goal of retracting all those considered unsafe
- High supplier standards: cheaper raw materials declined if suppliers can not meet those standards
- Safety training and audits imposed on our transportation partners

Highlights 2006

- New biological treatment basin for waste water in Mexico

Next steps

- Further reduce use of raw material and environmental emissions throughout production sites
- Studying possibility of recycling water to reduce the need for scarce well water in Mexico

Akzo Nobel Polymer Chemicals holds leading positions in the production, handling and supply of organic peroxides, metal alkyls and polymerization catalysts. These products are used primarily in the polymer production and processing industries, but find various other applications too. Polymer Chemicals also supplies polymer additives, antifouling and suspending agents. The semiconductor industry is served by our high purity metal organics.

Innovation for sustainability

Polymer Chemicals R&D systematically uses the stage gate process to assess HSE aspects of a new product in a defined number of development stages. Products and services are continuously improved in close cooperation with customers. We conduct specific innovation projects or ventures through cooperation with key customers. These projects are aimed at achieving sustainable profitability for our business and overall social and environmental improvements.

Examples⁺ of our innovation include PVC that allows a higher throughput and less energy consumption, environmentally-friendly technology to coat metal fittings with aluminum, decreasing the environmental impact of building cleaning processes, improving the properties of several biopolymers and identifying anti-malaria compounds.

Following an accident at our site in Los Reyes, Mexico, in 2005 we have taken steps to re-evaluate all our products and processes with the ultimate goal of retracting all those considered unsafe.

Product stewardship, responsible care

We have incorporated product stewardship into our business practices and have included on our portal a section and website specifically dedicated to it. All sub-business units within Polymer Chemicals must use this platform to inform fellow employees of their progress. As part of its product stewardship processes, the business unit management team has established a global REACH team.



Biopolymers

Since polymers today are produced from petroleum and other long-stored carbon sources, the use of biopolymers can significantly decrease CO₂ emissions to the environment.

Among examples of recent product stewardship initiatives are the evaluation of the safety and environmental aspects of alternative suppliers as part of our decision-making. Cheaper raw materials are declined if suppliers cannot meet our standards. We have imposed safety training and audits on our transportation partners (sea and land carriers) to ensure they meet our standards and follow our guidelines. At our North American business, we have conducted a supply chain security and safety study, in compliance with tightened security measures and because of the potentially dangerous chemicals we produce. Tighter measures and controls were put in place to manage the shelf life of our peroxide products. As a final example, we promote group shipments, reducing the number of non-optimum shipments such as partial pallets and less-than-truckload.

Sustainable activities

Targets have been set to reduce the use of raw materials and environmental emissions throughout our production sites. Our Los Reyes facility in Mexico installed a biological treatment basin for waste water in 2006, the third such system for the facility, to ensure the reduced COD emission level of < 500 tons a year after a production capacity increase. (In 2004 the Chemical Oxygen Demand emission was approximately 1,300 tons). We are studying the possibility of recycling water, which would reduce the need to use scarce well water.



Akzo Nobel – Human and animal healthcare

In recent years, Akzo Nobel has made significant progress in pursuing its strategy of fixing Pharma, refocusing the Chemicals portfolio and continuing to grow and invest in the Coatings business.

Organon BioSciences

As a logical next step, and after a thorough strategic review, the Board of Management decided to create two independent companies, for Coatings/Chemicals and for Pharmaceuticals, to enhance shareholder value through both increased management and strategic focus, and greater transparency. Both businesses are strongly positioned to grow independently. The new Pharmaceuticals business includes Organon and Intervet, and is named Organon BioSciences.

In human healthcare, our Organon business develops, manufactures and markets value-adding prescription medicines for women's healthcare, mental health and anesthesia. Organon has built leading positions in its areas of therapeutic expertise with innovative solutions to medical needs. One in five healthcare employees works in R&D.

Our Nobilon business is discovering, developing, producing and commercializing human vaccines at its state-of-the-art manufacturing facility in Boxmeer, the Netherlands.

In animal healthcare, our Intervet business is renowned for its innovative vaccines and veterinary pharmaceuticals. We are the world's largest player in the animal vaccine

market in terms of both sales and vials produced. In addition to vaccines, Intervet's product range includes anti-infectives, anti-parasitics, endocrine products for fertility regulation, and a wide range of specialized pharmaceutical products.

Intervet has been producing innovative vaccines and veterinary pharmaceuticals for decades. It currently operates 14 R&D facilities. In addition to our research activities on major diseases, such as foot-and-mouth disease and classical swine fever, in 2005 we intensified our research into the prevention of zoonotic diseases – those that are transferred from animals to humans.

Both Organon and Intervet operate in an environment in which social responsibility plays a pivotal role. In human healthcare, in particular, this has many ramifications, such as the transparent and accessible collection and storage of relevant data from clinical trials. Intellectual property rights, animal testing, product stewardship and access to essential medicines are all issues of crucial importance in pharmaceuticals. Ultimately, irrespective of whether a product is destined for human or animal healthcare, the end product must be safe and effective.

Akzo Nobel – Human and animal healthcare

Organon

Examples of progress in the value chain

- 18% of revenues devoted to R&D, with up to 20% spent on external collaborations
- Marketing models and cooperations with NGOs (such as USAID)

Highlights 2006

- Clear contribution through active support to UN Millennium Development Goals: focus on sexual education and family planning

Next steps

- Ongoing market development in emerging markets
- Research collaboration on a novel therapy for the treatment of rheumatoid arthritis

Under the name Organon, our human healthcare business is a renowned global biopharmaceutical company committed to improving the health and quality of human life. Organon is a leading pharmaceutical company in gynecology, fertility, neuroscience and anesthesia. In these core therapeutic fields Organon has a comprehensive range of effective pharmaceuticals available.

Research is also conducted in immunology and oncology. Our products are sold in over 100 countries, of which more than 50 have an Organon subsidiary.

Innovation: tomorrow's drugs

Organon's success depends on the discovery and development of innovative medicines designed to meet the needs of patients and doctors. Research and development include discovery, synthesis, testing and assessment of the efficacy and safety of new drugs. A long and expensive process, this typically takes 10-12 years and costs well over USD/EUR 800 million. It is a high-risk process: for every drug that reaches the market, thousands of other compounds will have been discarded along the way. Organon devotes 18% of revenues to R&D, with up to 20% of the research budget spent on external collaborations. Around 2,500 employees, or 18% of Organon staff, work in R&D.

Caring for society

In the 2005 CSR Report we reported that we aimed to contribute to the UN Millennium Development Goals,⁺ according to our corporate social responsibilities.

The examples below demonstrate our support for the following development goals:

- Eradicating extreme hunger and poverty (by supporting responsible family planning)
- Promoting gender equality and empowering women (through sexual education and birth control/family planning directly aimed at women)
- Reducing child mortality
- Improving maternal health
Combating HIV/AIDS and other sexually-transmitted diseases

Organon is concentrating on offering sexual education and making family planning products accessible and affordable to all women of reproductive age. Organon is highly active in sexual education⁺ in various major emerging countries, such as China, the Philippines⁺ and India,⁺ and has adolescent education programs in Thailand, Laos, Brazil, Venezuela and Colombia.

In order to ensure contraceptive products are accessible and affordable, we have developed a marketing model and cooperations with NGOs (such as USAID) for women of reproductive age in the emerging countries where we are based.



Rabies

Intervet, using recombinant DNA technology, has developed a vaccine that offers three levels of improved safety, relating to the rabies virus' entry into the nerves at the place of a bite, its transport along the nerves to the brain and the exposure to the immune system.

Intervet

Examples of progress in the value chain

- Important contribution to safeguarding the health of food-producing animals such as cattle, poultry and fish helping to ensure quantity and quality of world's human food production
- More than EUR 100 million spent on R&D programs annually

Highlights 2006

- Safe and efficient oral rabies vaccine
- Continuation of Sahayog project in cooperation with BAIF, helping farmers keep their livestock in good shape
- Supplying France and the UK with tens of millions of doses of avian influenza vaccine
- Intervet's equine West Nile vaccine approved by USDA

Next steps

- Avian influenza marker vaccine expected to go into field trial in 2007

Intervet is dedicated to the research, development, manufacture and sale of animal health products. It is the world's third-largest animal health company and the leading European business operating in the sector. Intervet's broad portfolio spans nearly all the main therapeutic areas and includes products for use in all major food-producing and companion animal species.

Quality of life

Intervet offers one of the industry's most comprehensive portfolios, spanning vaccines, antiparasitics, anti-infectives and a broad range of pharmaceutical specialties. Our vaccines make an important contribution to safeguarding the health of food-producing animals such as cattle, poultry and fish and thus they help ensure the quality and quantity of the world's human food production and help to eradicate hunger in many developing countries. Vaccines are a traditional area of strength for Intervet.

Our vaccine portfolio includes a host of unique products, including many "firsts" in terms of technological applications and disease coverage.

Intervet's pharmaceutical range is equally comprehensive and spans antiparasitics, fertility treatments and reproductive aids as well as a growing range of specialty products.

Akzo Nobel – Human and animal healthcare

Innovation for sustainability

Intervet devotes more than EUR 100 million a year to R&D programs, making it one of the industry's biggest investors in innovation, and operates 14 R&D sites around the globe. Around 15% of our more than 5,000 employees are engaged in R&D-related functions.

This section highlights our efforts to develop vaccines for animal diseases that can be transferred from animals to people (so-called zoonosis) or which can significantly affect the food supply in developing countries.

Intervet has prepared an avian influenza (AI) marker vaccine which is expected to go into field trial in 2007. The so-called marker concept, which differentiates between vaccinated and infected animals, is an integral part of our research plan for bacterial or viral vaccines under development. We are also developing an improved vaccine for haemorrhagic septicemia (*pasteurella multocida*), a highly fatal disease contracted mainly by cattle and water buffalo. Also under development is a vaccine for theileria parva, known as East Coast fever because it is found in southern, central and eastern Africa. This project is a collaboration with partners from Wageningen University in the Netherlands, the International Livestock Research Institute (ILRI), Kenya, and the Tropical Institute in Antwerp.

We have developed a safe and efficient oral rabies vaccine⁺ specifically for use in stray dogs in India. We are developing a vaccine against canine visceral leishmaniosis, which will help to better control the disease in dogs and humans.

This parasitic disease is a widely distributed zoonosis in Central and South America, East and West Africa and Mediterranean countries.

In India, the Sahayog⁺ project with the BAIF NGO continued in 2006, helping farmers keep their livestock in good shape. In the UK, a special project called "Forging the link"⁺ was launched. Recognizing the link between human and animal abuse, this project aims to help fight domestic violence and child abuse.

Business support



Akzo Nobel Technology and Engineering: Delivering sustainable solutions

Technology and Engineering (T&E) is a key support function in realizing our ambitious goals with respect to CSR/sustainable development. T&E's philosophy is to create "sustainable solutions covering the full life cycle," adding value at every stage of our business cycle. T&E delivers a powerful combination of expertise to our businesses and customers around the globe in eco-efficiency and life cycle analysis, process safety, health, safety, environment & regulatory affairs & ecotoxicology, plant design & engineering and process & manufacturing support.

Akzo Nobel Technology and Engineering operates worldwide, with 260 employees located in the Netherlands, Sweden, the United States and China.

Sustainability items



The previous section gave an overview of how CSR is integrated in our core businesses. The businesses deal with specific challenges related to the variety of markets, client segments, product innovations and specific conditions in the various geographies.

Although our businesses play an ever more dominant role in realizing our CSR agenda, corporate focus remains important. Being a global company comes with global responsibilities and challenges that transcend the responsibility of an individual business. We are one Akzo Nobel and have one reputation, one set of values and one CSR framework and management system.

Being a highly specialized and technologically advanced company with energy-intensive processes, a potentially significant ecological footprint and with products fulfilling a key role in important value chains, the following substantial non-financial risks and opportunities have been identified:

- **Energy and climate**
How to ensure sustainable energy consumption, with key items energy cost and climate impact. Solutions such as improving energy efficiency and switching to carbon extensive sources address both key items
- **Innovation**
Development of eco-efficient value propositions. How to ensure that we develop optimal value propositions for the value chains of which our products and processes are part; how to unlock business value by creating products with the lowest possible ecological impact at the lowest possible cost, while satisfying human needs and enhancing quality of life

- **Operational excellence**
How to ensure safe and reliable operations with low ecological impact, also aimed at preventing remediation cost
- **Talent recruitment and development**
How to ensure we recruit and develop employees in order to realize our ambitious targets
- **Business integrity**
How to ensure we conduct our business adhering to our worldwide standards for business integrity

While the businesses have their own specific responsibility to translate non-financial risks and opportunities into dedicated plans and actions in their business environment, on a corporate level we have governance and guidance as well as support functions in place for those areas that are not business-specific. Moreover, at corporate level we ensure cross-business learning and sharing of best practices throughout our company.

The next section gives a brief overview of substantial non-financial risks and opportunities followed by a description of how they are being addressed.

Energy and climate

Energy pricing and climate change due to CO₂ emissions caused by burning of fossil fuels are two strongly interlinked concerns for Akzo Nobel's top management and are identified as one of the top 10 risks for our company. In 2006, our total energy consumption amounted to 88 Petajoules and our total energy bill amounted to EUR 750 million, which means EUR 8.5 million per Petajoule, a price increase of approximately 20% compared to 2005.

Regarding the problem of worldwide climate change, the World Business Council of Sustainable Development (WBCSD) – of which Akzo Nobel is a member – has developed a scenario called “the 9 Gt World”. (Gt stands for Gigatons of carbon emission a year caused by CO₂-equivalent emissions.) In this scenario, the CO₂ concentration in the atmosphere will be limited to 550 parts per million (ppm) and the temperature increase to less than 3° Celsius. The scenario combines a population growth to nine billion by 2050 with healthy economic growth, reducing energy consumption by 50% compared to 2002 levels and reducing remaining CO₂ emissions by 50% using low-carbon technologies. The WBCSD provides technological solutions to achieve these reductions.

However, the WBCSD notes that the tremendous changes required to achieve this will only occur if a long-term worldwide policy framework is created to support focused action by all key players. Such a framework would include using market-based mechanisms and instruments and thereby engaging the capital markets to secure financing of the transition to a carbon-constrained future. Details of such a policy framework are contained in the WBCSD's publication “Energy & Climate Change – Sharpening the focus for action” (May 2006).

Akzo Nobel shares WBCSD's view on the carbon-constrained world we live in and on the above-mentioned policy framework. Akzo Nobel's response to these challenges is included in our Energy Efficiency and Climate Strategy. Our Key Performance Indicator “Net Energy Consumption Index”

monitors and helps to improve our energy efficiency performance. Our Key Performance Indicator “Percentage of Zero/Low Carbon Power Consumption” monitors and helps to reduce CO₂ emission by applying carbon extensive energy technologies. Moreover we monitor and report on our direct and indirect CO₂ emissions.

Ongoing improvement in energy efficiency of our operations

Our efforts to improve energy efficiency address the need for energy cost reduction as well as the need to reduce (indirect) CO₂ emissions. Today, our energy efficiency is 19% better than in the reference year 1990.

Several specific measures and achievements in improving energy efficiency are listed below.

Covenant benchmarking

Within the Netherlands, by means of so-called covenant benchmarking, we have signed an agreement to belong to the top 10% of energy-efficient companies by 2012. Progress is checked at four-year intervals. The 2005 check of our Base Chemicals business revealed that our energy-intensive chlorine and salt operations already belong to the world's top 10%.

Energy efficiency aspects of our operations in emerging markets

Although our energy consumption in emerging markets such as Brazil and China is still a small fraction of our total consumption, we place much emphasis on building state-of-the-art, energy-efficient facilities in those countries. Our new chlorine dioxide plant in Bahia, Brazil, is among the most eco-efficient plants within our pulp and paper business and uses 100% power derived from biomass. The design of a new ethylene amine plant in China is based on a concept that is expected to be 20% more energy efficient than our most modern facility in Stenungsund, Sweden.

CO₂ emissions

Reducing our CO₂ emissions is a major issue for the company. Our direct CO₂ emissions are dominated by Combined Heat and

Power Energy Plants, which use gas as a primary fuel. In view of the enormous increase in gas prices in the past few years, we are studying the feasibility of switching to cheaper primary fuels. Indirect CO₂ emissions are positively influenced by energy efficiency improvements to our processes and by using power from low carbon sources.

As of 2005, a CO₂ emission trading system is in force in the EU. This is set up as a Cap & Trade system based on “Grandfathering” which means that the CO₂ emission allowances granted to a plant are based on the historical emissions of that plant. In this way the trading system does not really promote energy efficient plants such as our cogeneration plants. Akzo Nobel advocates a fundamental change of this system towards a performance based allocation system, in which similar plants get the same amount of allowances per unit of product. This will promote the efficient plants and penalize the inefficient ones.

Several specific measures and achievements to reduce CO₂ emissions are listed below.

Reducing direct CO₂ emissions

Our direct CO₂ emissions primarily come from our Combined Heat and Power (CHP) plants. In 2006 they amounted to 3.2 million tons, slightly below the level of 2005 due to the maintenance stop of the Delesto unit in Delfzijl (NL). Although the CHP plants are technologically advanced in their efficiency, they have the disadvantage that they use scarce and expensive gas as a primary fuel. We therefore plan to suspend the operation of our Mariager CHP plant in Denmark. A new woodchip-based steam boiler – able to supply 50% of the salt plant steam demand – is being constructed for start-up in summer 2007. Woodchips are a cheaper and more sustainable CO₂-neutral fuel. They are abundantly available and their production – through the positive process for forest maintenance in Denmark and other Scandinavian countries – does not harm the environment. Implementing this process is estimated to save 50,000 tons (EUR 750,000) of indirect CO₂ emission annually. Direct CO₂ emissions excluding the contribution of our CHP Joint Ventures in 2006 amounted to 1.0 million tons.

Sustainability items

In the Netherlands, we are investigating replacing the natural gas usage for steam production with alternative fuels derived from municipal waste – so-called refuse derived fuels (RDF). Using RDF will replace approximately 120 million m³ of natural gas (EUR 24 million) per year. This initiative is fully in line with EU and Dutch national policies to ban landfill and to reuse waste streams as much as possible. Using RDF will reduce CO₂ emissions from fossil fuels by approximately 25% per avoided m³ natural gas. Using RDF will reduce direct CO₂ emissions by approximately 60,000 tons (EUR 900,000) of CO₂ per year. Sparing the use of natural gas, a scarce fossil fuel, is also a significant advantage. The new RDF steam boilers will be designed using the best available technology for flue gas cleaning.

Indirect CO₂ emissions

Our indirect CO₂ emissions in 2006 amounted to 2.0 million tons, at the same level as in 2005, mainly due to increased production on the one hand and the divestment of several chemicals businesses on the other hand. Our KPI relating to indirect CO₂ emissions is Zero/Low Carbon Power Consumption as a percentage of Total Power Consumption (ZLCPC). In 2006 this percentage (74%) was slightly higher than in 2005 (73%). Our target is to maintain the percentage of ZLCPC at 72% at the least through 2010.

Developing eco-efficient and sustainable solutions

Being truly 'Fit for the future' implies that Akzo Nobel will place increased focus on providing customers with sustainable solutions. The development of new processes and products is triggered by scarcity and excessive prices of fossil fuels and raw materials, environmental problems such as global warming and climate change and developing legislation regarding toxicity of raw materials and products. As we want to accelerate our growth, especially in emerging markets, we are challenged to create value for our shareholders and society at large, while significantly reducing our environmental impact. Akzo Nobel considers these new circumstances not as a threat, but as an

opportunity. In proactively doing so, we gain competitive advantages and create new business opportunities. The best opportunities for achieving sustainable solutions are often to be found in optimizing complete value chains instead of optimizing individual products or processes. Therefore, in developing new products we closely cooperate with our customers. Many of our products help them to save energy and costs in their business.

The eco-efficiency approach

To ensure that newly developed products have the right balance between costs, ecological impacts and resource intensity, we have embraced the eco-efficiency approach. According to the World Business Council for Sustainable Development, eco-efficiency is "the delivery of competitively priced goods or services that satisfy human needs and bring quality of life, while progressively reducing ecological impacts and resource intensity throughout the life cycle to a level at least in line with the Earth's estimated carrying capacity." Our approach is supported by a powerful tool, the so called Eco-Efficiency Analysis, which allows a quantitative eco-efficiency comparison between alternative processes, products or even complete value chains. We have a firm belief in the value of this approach and therefore further developed it in 2006 as a crucial instrument in our overall business strategy. In all phases of the value chain, from investments and purchasing to manufacturing, research and marketing, the eco-efficiency "lens" is now used to select the best options from alternatives – be it which of a series of lab scale-developed products to take into further development, or which of several possible manufacturing locations to choose, or which alternative process to use in a new production plant. Eco-efficiency is also a powerful marketing tool. Many successful eco-efficiency cases are explicitly market- and even customer-driven. The approach provides solid ground and common understanding for identifying in which direction a co operation with customers will develop. Therefore, as an example, we have elaborated our eco-efficiency approach in marketing.

Eco-efficiency in marketing

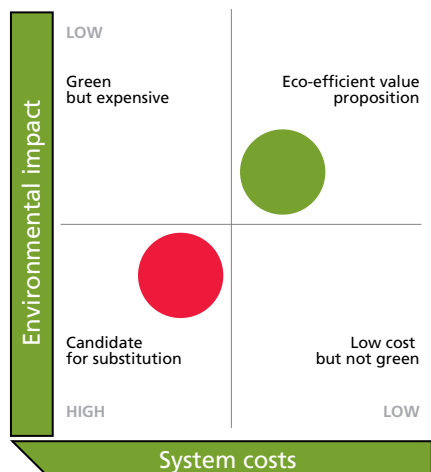
Focusing on marketing, we have identified five steps to implement eco-efficiency:

- 1) Market assessment: identify strategically relevant market segments that are increasingly sensitive to eco-efficiency
- 2) Customer assessment: identify strategic customers with an emerging eco-efficiency profile
- 3) Product selection: focus on most relevant products and applications
- 4) Eco-efficiency analysis: tailor-made approach in terms of breadth and depth
- 5) Eco-efficient value proposition and outline of implications for the business

It is our ambition to strengthen our competitive position by using the concept of eco-efficiency to develop even more sustainable product portfolios. In 2006, we described over 30 eco-efficiency cases in our chemicals and coatings businesses, which are presented in our comprehensive "Akzo Nobel Eco-Efficiency Review." The review also describes in detail how we will further roll out our eco-efficiency approach together with our customers in the period 2007-2009.

Eco-efficiency analysis

Comparing cost structure and ecological performance for competing alternatives.



The Akzo Nobel Eco-Efficiency Centre (www.sd.akzonobel-te.com) holds all expertise necessary for the practical implementation of eco-efficiency throughout the company.

Product stewardship

Product stewardship management, which we have practised for many years, finds shelter under the umbrella of the eco-efficiency approach. It can be defined as optimizing the eco-efficiency and safety of products, processes and value chains. Sometimes this means improving existing products and processes by small steps and at other times it may require the development of completely new products and processes. Important building blocks of our product stewardship management are:

- Reduction/elimination of raw materials of concern and high concern and volatile organic compounds from our products, especially important in our coatings businesses
- Improving transport safety; a good example in 2006 was the elimination of chlorine transports in the Netherlands and the further improvement of chlorine transport safety in west European countries by putting into operation a completely new fleet of Rail Tank Cars complying with the highest safety standards
- Customer information/training/assessment on safe handling, storage and use of our products; each business unit has a product safety database that records risk classifications of chemicals and produces safety data sheets in all required languages and formats. All businesses organise extensive training of transporters and customers. A remarkable initiative has been taken by our pulp and paper business: its North America product stewardship evaluation program assesses safe handling, storage and use of sodium chlorate and hydrogen peroxide at all its more than 200 customer locations over a four-year period (2005-2008)

- Helping customers improve efficient use of their raw materials (our products); a remarkable example in 2006 was the chemical leasing project of Akzo Nobel Powder Coatings SAE in Egypt, in which its Egyptian subsidiary Coatech supports the whole stream of powder coatings at its customer plant. This has halved customer losses. Another fine example of this approach was a joint program of Car Refinishes North America with the Environmental Protection Agency to promote best practices for the collision repair industry, which includes several best practices to minimize waste

REACH

REACH is the European proposal for Registration, Evaluation and Authorization of Chemicals, anticipated to come into effect in second-quarter 2007. REACH has been called "the legislative approach to product stewardship" by some authorities in the field. The philosophy behind the new legislation is completely in line with our eco-efficiency and product stewardship concepts. We fully support the implementation of REACH and much of the work to be carried out is consistent with our current eco-efficiency and product stewardship programs. This is why we also consider REACH as an opportunity. We are keeping up-to-date on the progress of REACH through the European legislative process and are actively providing input to appropriate people. We are assisting in the writing of three REACH implementation projects, which give guidance to industry on how to comply with REACH requirements. All our businesses have multidisciplinary REACH committees who are undertaking work prior to the adoption of REACH. Questionnaires have been developed to ensure that the progress of business units in the REACH process can be monitored.

Sustainability items

KPI indicator table

Parameter	2002	2003	2004	2005	2006	2010
Number of serious incidents (a)	>	>	>	15	3	0
Lost Time Injuries Frequency Rate*	3.0	2.8	2.0	2.3	2.2	1.2
Total Reportable Rate of Injuries*	>	>	>	7.4	6.8	5.0->2.0
Number of Lost Time Injuries of Contractors	>	>	>	76	72	
Total Illness Absence Rate in %	2.6	2.5	2.5	2.4	2.3	2.2
Occupational Illness Frequency Rate*	>	>	>	0.5	0.4	(b)
% Zero and Low Carbon Power Consumption	>	>	>	73	74	72
Net Energy Consumption Index (1990 = 100%)	80	83	82(c)	81	81	79
Direct CO ₂ Emissions (Million T)	>	>	>	3.3 (d)	3.2	(b) (d)
Chemical Oxygen Demand, discharge to surface**	3.6	3.2	3.7	2.4	2.4	1.5
Volatile Organic Compound emission to air**	5.7	5.8	5.3	5.1	4.9	4.0
Non-Reusable Waste**	97	95	70	109	112	75
Hazardous Waste as % of non-reusable waste	23	19	15	23	24	(e)
Fresh water consumption***	>	>	>	298	285	

> introduced in 2005

* per 1 million hours worked

** metric kilotons

*** million m³

(a) Serious incidents involving fatalities or grave bodily injury to our employees or contractors, and incidents involving serious environmental, financial or reputational damage.

(b) No target: absolute figure, related to magnitude of business activities.

(c) Old figures restated due to changes in portfolio.

(d) Figures based on 100% emission contribution of joint ventures.

(e) No target: percentage of hazardous waste is for information only. Target is focused on reduction of non-reusable waste.

Operational excellence

Operational excellence is a key issue for our company to protect the health and safety of our workers and to achieve safe and reliable operations with a low impact on our neighbors and on the environment.

To monitor our progress we have defined Corporate Key Performance Indicators (KPIs).

KPIs

1. Number of serious HSE incidents
2. Lost Time Injury (LTI) Frequency Rate (LTI-FR)
3. Total Reportable Injury Rate (TRR)
4. Number of Contractor LTIs (C-LTI)
5. Occupational Illness Frequency Rate (OIFR)
6. Total Illness Absence Rate (TIAR)
7. Non-Reusable Waste (NRW)
8. Hazardous Waste as % of Non-Reusable Waste (HW)
9. Fresh water consumption
10. COD emission
11. VOC emission

Number of serious HSE incidents

2010	0
2006	3
2005	15

In 2005, events resulting in absence from work for more than six weeks were reportable incidents. These types of incidents were withdrawn from the definition in 2006.

Fortunately, no fatalities were reported in 2006. In 2006 we regret three serious incidents reported which injured five people:

- May 23: a toxic gas release (200 kg H₂S) at our Thioplast site in Greiz. Two employees were exposed and received hospital treatment
- November 30: a hydrochloric acid emission from a rail tank car on the railway station of Karlstad, Sweden. Two people were exposed and were transported to hospital for observation
- December 20: in our Research and Technology Facilities in Arnhem, an employee was exposed to harmful substances and received hospital treatment

Lost Time Injuries Frequency Rate

2010		1.2
2006		2.2
2005		2.3
2004		2.0
2003		2.8
2002		3.0

Total Reportable Rate of Injuries

2010		5.0 > 2.0
2006		6.8
2005		7.4

Number of Lost Time Injuries of Contractors

2006		72
2005		76

Health and Safety Performance targets stretched

Akzo Nobel's safety performance in 2006 is represented in graphs. Our overall safety performance has slightly improved. In 2005, new and improved 2010 targets were set for two safety-related Key Performance Indicators (Lost Time Injury

Frequency Rate and Total Reportable Injury Rate). After evaluating these targets thoroughly, however, we found them too conservative and not in line with our ambition to do the utmost to protect the health and safety of our employees and contractors. Therefore, in 2006 the Board of Management decided to establish challenging and stretched 2010 safety targets for all Akzo Nobel businesses – demonstrating our ambition to work towards a best-in-class safety performance. In 2010 the Total Reportable Injury Rate should improve by more than 70% compared with base year 2005.

Behavior-based safety training

To support our efforts to achieve the challenging 2010 safety targets, the behavior-based safety (BBS) approach was adopted throughout our company in 2006. With this approach, we are aiming to achieve a company-wide culture where safety shifts from being a priority to being an internal value. One should feel free to approach colleagues when signalling at-risk behavior.

Hazardous situations, incidents and injuries should be reported with the same ease as seat belts are used nowadays. BBS provides a structured approach to bringing about the required culture change. While the execution is for 90% on the shop floor “where accidents happen”, Akzo Nobel managers set the example facilitating their employees on the road to zero accidents. All our businesses now have an action plan to take safety to a higher level ensuring that it remains a top priority for all those we bear responsibility for, both employees and contractors.

Occupational Illness Frequency Rate and Total Illness Absence Rate

Occupational illness cases will continue to be reported for employees. Sixty cases were reported in 2005 and 45 in 2006. The 2006 OIFR is: 0.4. The Total Illness Absence Rate (TIAR) has been trending slowly downwards over the years; corporate TIAR is now 2.3.

Occupational Illness Frequency Rate

2006		0.4
2005		0.5

Total Illness Absence Rate in %

2010		2.2
2006		2.3
2005		2.4
2004		2.5
2003		2.5
2002		2.6

Health and safety

– employee involvement

We consider employee involvement a prerequisite for developing and implementing effective health and safety policies, so we work with a system of employee representation in all geographical regions. All our sites have safety and health committees where the various functional layers and, if applicable, union members are represented. Input for improvement actions are both workforce – and management-driven.

Non-Reusable Waste

2010		75
2006		112
2005		109
2004		70
2003		95
2002		97

Hazardous Waste as % of Non-Reusable Waste**

2006		24
2005		23
2004		15
2003		19
2002		23

Reducing waste not only prevents claims on scarce land for landfill or investments in expensive incineration installations but also saves scarce raw materials. Reducing the levels of non-reusable waste is therefore a prime concern in all of our businesses.

The slight increase of non-reusable waste in 2006 is mainly caused by discontinuation of converting mucosa waste – generated by our human healthcare business – into a useful product (gas for heat generation) by means of fermentation. The discontinuation was necessary because of regulatory limitations. Our combined chemicals and coatings

businesses produced 58 kilotons of non-reusable waste, which was 8% lower than in 2005.

In 2006, the percentage of hazardous waste was 24%, slightly higher than in 2005. This was mainly caused by the temporary unavailability of an on-site waste incinerator at our Stenungsund facility in Sweden. In 2006, the hazardous waste of this facility had to be treated temporarily by a third party. This was an administrative change and did not lead to additional waste for the environment.

Waste reduction examples can be found all over the company. A few remarkable examples with a significant impact on our company's overall waste reduction performance are: Powder Coatings in Felling+ with a reduction from 6% to 3% of production volume over 5 years; Surfactants Morris (U.S.)+ plant, by offering customers a slightly modified product; and Marine & Protective Coatings Business in Felling UK,+ where, despite a 700% increase in landfill disposal costs for hazardous waste, no additional waste disposal costs have been incurred due to waste management improvement.

Ensuring fresh water availability through sustainable water management

Fresh water consumption

2006		285
2005		298

With industry accounting for around 22% of the world's total consumption of fresh water, industrial companies have a responsibility to reduce the burden they place on the availability of fresh water supplies. In general terms, this means that industry must assess a sustainable use of its fresh water resources. Once water eco-systems fail, they may be lost for generations. In view of the above, our ambition is to achieve 100% sustainable water use on all our sites by 2015.

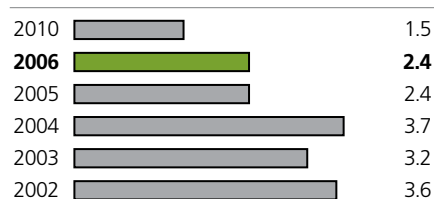
Sustainability items

In 2005, we started detailed reporting of our water consumption, by both source categories and applications. Since sustainability of water use depends not only on quantities, but also on the local geographical situation, we have developed a sustainable water management model. Using this model, we executed more than 30 pilot studies worldwide in 2006 to establish the sustainability of our water supply to the operations.

The analyses were based on information gathered at the production plant level. Besides quantities, the plants were requested to detail the source of their water supply (potable water, groundwater or surface water) and to investigate local trends and constraints (such as sufficient ground water replacement rates, impact on local farming activities or impact on drinking water production units). This enables an inventory to be made of where problems may arise in the near future. Adequate local measures can then be proactively taken by the business.

One example is a production unit in Puna, India, where the local supply situation had been characterized as potentially unsustainable. Although the unit had a relatively low fresh water consumption level, local management has initiated various measures to address the situation, such as implementing a system to recycle cooling water and water-saving projects. A completely different situation was found at our Delfzijl industry park in the Netherlands. On this site, large quantities of fresh surface water are used for industrial cooling purposes. The detailed analysis revealed that the situation was completely sustainable.

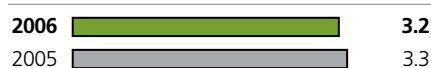
Chemical Oxygen Demand, discharge to surface



These two examples show that sustainable water management requires more than managing fresh water consumption alone. The supply side might be sustainable, but the water discharge side also needs attention. Therefore, all our plants measure the COD level in the water discharge to surface waters. COD Emission is a Corporate KPI and the trend is represented in the graph.

The pilots will be continued and the objective is to ensure all our plants operate in sustainable water use mode. Where required, further analyses will be conducted and improvement plans developed.

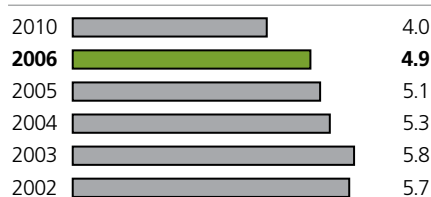
Direct CO₂ Emissions (Million T)



Clean air

Our CO₂ emissions are described in the section on energy and climate. Our performance with regard to the emission of low level ozone-creating substances, substances contributing to acidification and ozone-depleting substances are listed below.

Volatile Organic Compound emission to air



Emission of low level ozone-creating substances

- The falling trend in our VOC emissions of the past years was continued in 2006. Total VOC emissions from our processes amounted to 4.9 kilotons
- A significant contribution to the overall reduction of our VOC Emission was made by our Surfactants Plant in Itupeva, Brazil. A cryogenic condenser was installed to cut drastically its emissions of methyl chloride (for details, see Surfactants section of this Report)

Emission of substances contributing to acidification

- In 2006, total SO_x emissions, originating from our H₂SO₄ and CS₂ plants in LeMoyne, USA and Cologne, Germany, amounted to 4441 tons
- In 2006, total NO_x emissions, originating from our Combined Heat and Power plants in the Netherlands and Denmark, amounted to 2,068 tons

Emissions of ozone-depleting substances (ODS)

Akzo Nobel does not make products containing ozone-depleting substances (ODS). Ozone-depleting substances were used for refrigeration purposes, air conditioners and in fire extinguishers. At Akzo Nobel facilities, small amounts of ODS (mostly Freon 22) are still present in older air conditioning equipment and coolers and are continuously being replaced by environmentally-friendly systems. Maintenance is aimed at preventing leakages from e.g. refrigerant compressors and associated pipes. In recent years, the emissions have been reduced significantly to an almost negligible level.

Soil remediation

We have set aside a substantial provision of EUR 200 million for potential clean-up actions of historically contaminated sites owned by Akzo Nobel. This number is somewhat lower than in 2005, but over the last year we have improved the reporting processes of our liabilities worldwide and continue our efforts to clean up these sites worldwide for safe future use. Our established procedures are designed better to meet new global financial reporting standards such as IFRS and U.S. GAAP.

Integrated management systems and audits

In order to safeguard the quality of our operations, and in line with our commitment to Responsible Care, Coatings Care and product stewardship our businesses have QHSE and product stewardship management systems in place. The latest development is the integration of the above-mentioned management systems into one integrated approach.

Talent recruitment and development

Human capital: our competitive edge

The culture in Akzo Nobel is characterized by many as truly entrepreneurial with strong customer focus and a cooperative spirit. We understand that without people our business would not exist. Therefore we continue to improve on our people focus in Akzo Nobel. We want to ensure that our talent focus in and outside Akzo Nobel gets the same high level of recognition as our products and services do. In fact, all of us have to continually produce the talent necessary to deliver customer solutions, today and in the future. Talent development is therefore a key driver for our company.

In order to be successful in this journey, we have over the last 2 years established best practices in human resources management in Akzo Nobel. A worldwide performance appraisal process: our Performance & Development Dialog (P&D Dialog), a

worldwide employee survey and a worldwide process for leadership succession planning (the Leadership Talent Reviews). Embedded into these processes are key behaviors that define our culture and our success. Those are: customer focus, results orientation, quality commitment, teamwork, innovation and the commitment to our values "entrepreneurial spirit, personal integrity and social responsibility". Last but not least, our management has a key role to play in driving our culture. Strong people management skills are key for that. Therefore their focus is on managing performance, developing our people and on stimulating an open climate in their teams and in the company.

Performance & Development Dialog

The P&D Dialog was launched in 2005 and in the first year more than 60% of all employees took part in this new program. In 2006, a significant number of the remaining employees joined this new program, thus completing the worldwide

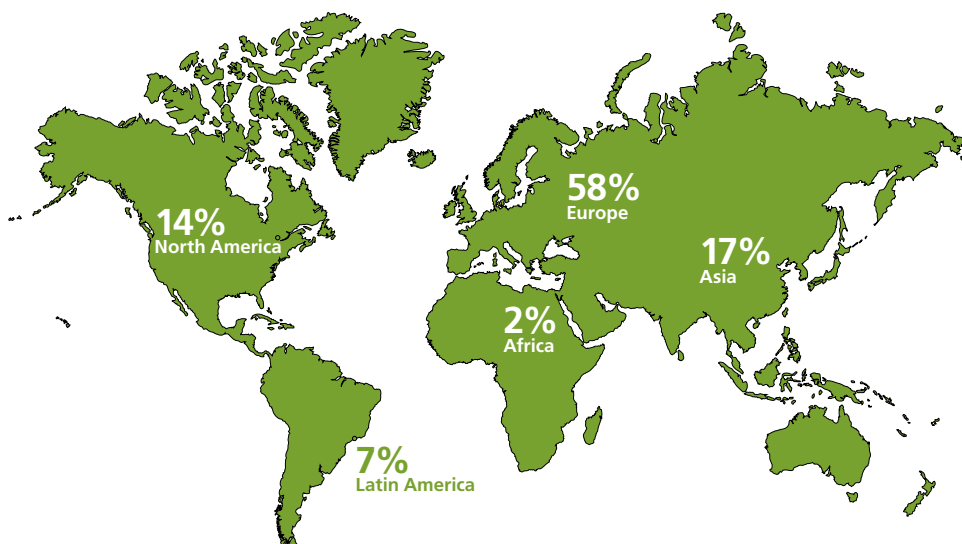
roll-out. The program was further improved during 2006 based on feedback from the organization in order to make the system more efficient and more focused on the dialog between manager and employee. Furthermore, a third of all employees now use the web-based system, which helps all involved to maintain good documentation in the process while maintaining the focus on the key part of the program: the dialog between employee and manager.

Employees and managers alike appreciate the common focus and process and see the P&D Dialog as a signal of a strengthened emphasis on their job and development. Via the 2006 Akzo Nobel employee survey a clear recognition for the improvement over previous programs was expressed by our people. At the same time they highlighted that we are still at the beginning of our journey to optimally develop talent, especially regarding the coaching and development of our employees.

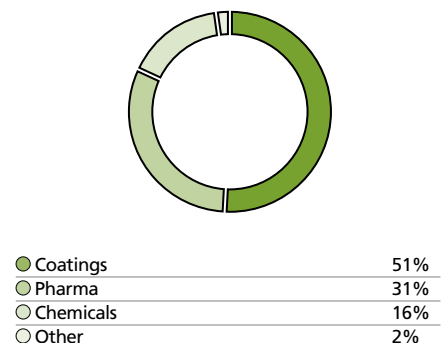
Workforce milestones

Our company employs around 61,880 employees worldwide in the three major business areas – Coatings, Healthcare and Chemicals. Geographical and employee distribution are shown below.

Geographical and employee distribution

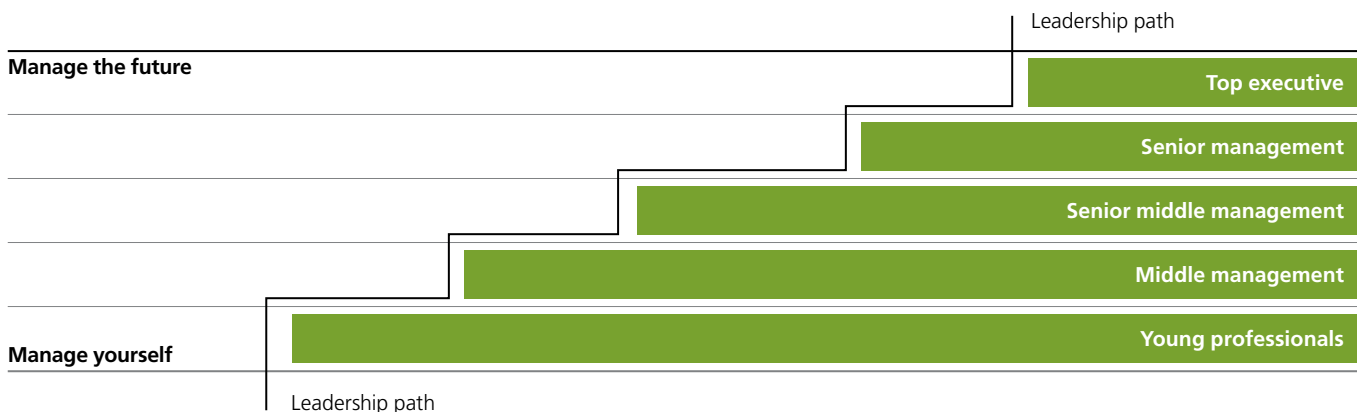


Total percentage of employees by business unit worldwide



Sustainability items

Leadership development ladder



With this in mind, the company launched stronger support to all managers for development discussions during the last quarter of 2006. This adds longer term business requirements and longer term personal ambitions to the development discussions with employees. And it provides them with additional tools to support these discussions and development actions.

Employee surveys

In 2006, Akzo Nobel completed the first ever company-wide Employee Survey. Eight out of 10 employees in 85 countries and 36 languages gave their feedback, which indicated that employees see the company overall as a strongly customer oriented company with a commitment to quality, safety and the environment. The majority (75%) of employees said they were satisfied with Akzo Nobel as a place to work, and felt a sense of accomplishment and pride.

When benchmarked against peer companies, the feedback on several questions show that we are well positioned overall. We want to continue to build on our strengths in these critical areas.

Still, we have to improve if we are to position ourselves closer to absolute best practices companies in other areas,

especially with regard to feedback and coaching, development and job opportunities. While we have improved in several of these areas since the last employee surveys, we have to realize that we only recently embarked on a journey to improve our people management practices and capabilities. The P&D Dialog has clearly helped us to take the first steps but we need to continue to drive the quality of this critical process via learning from experience and training in management skills. Where appropriate, these improvements have become P&D Dialog objectives for 2007.

The Employee Survey will be conducted every three years with a smaller pulse survey every year to follow up on the improvements and trends.

Data privacy

We recognize the importance of protecting personal data. Employees, suppliers, customers, clinical trial patients – anyone who provides us with their personal data should feel confident that the information they provide is treated with full confidentiality. To emphasize this, we have committed to implement a global Privacy Code of Conduct, ⁺ thereby guaranteeing a consistent level of protection of personal data throughout the entire organization. This means, for example, that a job application will be

processed with the same safeguards whether an individual applies for a job in the Netherlands, China, or anywhere else.

The implementation of Akzo Nobel's Privacy Code of Conduct is under way and in May 2006 the company received an approval of this document from the Dutch data protection authority, the CBP (College Bescherming Persoonsgegevens). The overall application is pending final approval by the CBP and other applicable European data protection authorities.

Leadership succession planning (leadership talent reviews)

Ensuring the continued success of our company requires that we also drive the development of future leaders of Akzo Nobel. Building on our existing practice, during 2006 we have further strengthened this process by involving more levels of management in the identification and review of our top talent. The focus for us has been the development of a high performing, diverse bench of succession candidates throughout all businesses.

Compensation & benefits

Akzo Nobel offers an attractive, customer-focused and entrepreneurial environment where our people are challenged and can develop their capabilities. Part of this high

performance culture, are attractive and competitive compensation and benefits programs, including pension schemes. We strive for market related compensation programs that allow differentiation based on performance across the company and link to business success and affordability.

Developing managers and employees is a priority of our company. Through our training and development programs we deliver value to our managers and employees on a global level. At the management and leadership level, training and education are organized globally and coordinated by corporate HR. 2006 was another successful year of further progress on our journey towards a Talent Factory, but we believe that our journey has only just started.

Business integrity

Business integrity is one of our three core values. We expect all employees to adhere to our very strict standards on business integrity as described in the Akzo Nobel Business Principles and Business Principles Specifications. Business integrity is a black and white issue with no room for grey areas. We expect all employees to be committed to the highest standards of running our business in a fair and open way, with ongoing efforts for continuous improvements.

The Akzo Nobel Business Principles and their specifications clarify the standards by which we want to operate. They lay down specific rules in areas such as free enterprise, business integrity, human rights, working conditions, community activities, compliance and transparent communication processes.

All Akzo Nobel employees have been trained in applying these principles. In 2006, aware that embedding Business Principles is an ongoing process, all Akzo Nobel businesses renewed their charters for the ongoing implementation of their Business Principles embedding programs.

The core of this consists of:

- Adequate training of new employees and employees in new functions and refreshment trainings of all other employees
- Continuous and specific compliance training with respect to antitrust, environmental protection, international trade, insider trading, tax laws and other issues with dimensions of ethical conduct
- Implementing a query resolution process, that ensures that upcoming dilemmas are properly assessed by the responsible managers and that solutions or answers are communicated to the employees for which they are relevant
- A complaints procedure, to foster an environment of openness and transparency at Akzo Nobel
- Implementing an incident-handling process which ensures that disclosed breaches of business principles are handled properly and consistently by the business unit organization

Sustainability items

Compliance issues in 2006

Based on corporate complaints procedure and U.S. Alertline	
Equal and fair treatment	11
Use and protection of assets	8
Business integrity (management fraud/accounting irregularities)	6
Bribery	3
Free market competition	5
Conflict of interest	2
Compliance business principles/legislation	1
Insider trading	0
Responsibility toward customers	1
Source of compliance issues:	
Corporate complaints procedures/U.S. Alertline	13
External investigation	0
Internal investigation	4
Others:	
Letters to Board of Management	4
Internal business unit investigation	16
Closed/open cases:	
Closed	28
Open	9

Complaints procedure

Our business principles encourage employees to report violations of business principles and codes of conduct. In order to ensure a confidential and reliable procedure for handling such reports, we have a whistle-blowing policy, which is laid down in our complaints procedure. This procedure sets out, step-by-step, what our people can do when "normal" reporting within hierarchical lines is not possible. In instances where, for example, they suspect that company rules are being broken, they can report this directly to the office of the General Counsel. In such a case they are protected by the status of privacy between counsel and client.

Compliance Committee

The whole process of embedding Business Principles is reviewed by the Akzo Nobel Compliance Committee. In line with applicable corporate governance standards, the Board of Management has established this committee to carry out the following tasks:

- To identify critical legal and ethical compliance risks
- To submit recommendations to the Board of Management on measures to address and improve compliance based on its findings
- To support the organization by implementing agreed recommendations as appropriate
- To monitor and assess the effectiveness of compliance efforts

- To investigate alleged breaches or compliance failures
- To report to the Board of Management, which in turn reports to the audit committee of the Supervisory Board

Compliance issues

Unfortunately, improving business integrity is a never-ending story. We will continue to aim for complete compliance with our company standards, while transparently reporting non-compliant behavior and the sanctions resulting from such behavior.

Sanctions

Eighteen people were made redundant as a consequence of investigations.

Other items

Purchasing and supply chain management

The quality of purchased raw materials is key to the smooth and predictable running of our chemical processes. Within Coatings, where the raw materials are in many cases formulated to an end product in their unaltered form, they directly contribute to the quality of our products. Raw materials management and, in a wider sense, management of our total supply, is therefore a cornerstone of our product stewardship and responsible care policies. It is a consequence of our product stewardship philosophy that the high standards for quality, HSE issues and ethical policies we apply to our own operations are extended to our supply chain. We have taken the following steps to improve our supplier management regarding this issue.

Quality and HSE performance

As well as quality specifications for individual goods and services, several of our businesses require their key suppliers to have a quality management system (ISO 9001 or comparable) in place. Vendor rating systems with quality elements are also in place within our businesses. Moreover some of our businesses require their key suppliers to have an environmental and/or occupational safety and health management system (ISO 14001, OHSAS 18001 or comparable) in place.

Compliance with our vendor policy

By early 2006 our main suppliers – representing the majority of our purchasing volume – had signed the vendor policy letter in which they state that they comply with our business principles.

The NPR program

In 2005, Akzo Nobel started the non product-related purchasing (NPR) program, aiming to centralize and streamline purchasing of non product-related goods and services. The original goal was cost reduction, but the program proved effective in reducing the number of suppliers. The vendor compliance letter has been included in all new supply contracts negotiated under our NPR program. A good example of the relationship between CSR and business in purchasing is our Safe and Green car lease program,⁺ where safety, environment and costs savings are integrated.

Other items

Communications and stakeholder dialog

Engaging with stakeholders is an important part of managing our business. As a consequence of the diversified nature of Akzo Nobel's activities, there is much direct contact with the specific stakeholders of our business activities. On a corporate level, we are working to create more structure as part of Akzo Nobel's future as a pure specialty chemicals company. Various discussions have been held with opinion leaders inside and outside the company to define the building blocks of the "new" Akzo Nobel. In various parts of this report, we describe in detail the most important aspects of our communication with and impact from or on different groups of stakeholders. This section offers a brief overview of our stakeholders.

Our business partners

In the innovation section we highlighted that in our efforts to improve value chains and unlock business value close cooperation and partnerships with suppliers and customers are of prime importance. We also devote much effort to being a good partner to our customers and suppliers in our day-to-day business.

Customers

We are a customer-focused company. Key elements of managing customer satisfaction throughout our company are:

- Product quality and efficiency
- Supply chain services
- Technical advice and support
- Innovation and development
- Information and communication
- Relationship and personal contact

Monitoring and improving customer satisfaction in these areas is a part of ISO 9001 or comparable quality management systems adopted by all of our businesses. A number of business units conduct comprehensive global customer satisfaction surveys every two or three years. Customers receive feedback on the results of these surveys.

All our businesses offer customers free round-the-clock feedback channels via the Internet, telephone or mail. Managing customer feedback and complaints is integral to our quality systems. We have procedures to channel customer feedback to the businesses' R&D activities. In 2006, we launched a proactive customer engagement process in several businesses, discussing with selected key clients the opportunities for improvement.

Suppliers

Details of our contacts with suppliers are described in the purchasing and supply chain management chapter.

Investors and other providers of capital

Good relationships with investors and financial analysts are vital to building a sustainable business model. Our investor relations (IR) department is responsible for communications to all our shareholders. The IR team uses a variety of information channels, including press releases, road shows, presentations at industry conferences and dedicated analyst and investor days, to explain and clarify the company's operations, performance and strategy.

In 2006, we had various meetings with analysts and fund managers specifically focusing on CSR items. We also presented our company's policy at a conference on socially responsible investing (SRI). The stronger focus is a reflection of the demand for greater accountability compared with previous years. Our renewed inclusion in 2006 in the Dow Jones Sustainability Indexes and FTSE 4 Good will only serve to prompt greater interest from SRI-focused investors.

Employees

Employee engagement and pride are key to our company's success. Our contribution to social justice, environmental protection and business integrity should result in employee pride.

Apart from the regular human resources initiatives described in detail in the HR section, this is bolstered by aspects such as:

- The recent employee survey and the involvement of employees in developing improvement plans
- The CSR Award competition. Our internal CSR Award contest was upgraded in 2006 with emphasis on the business case for CSR good practices. An international jury assessed the 63 submissions to select the best business unit⁺ and best team⁺
- Business Principles training and embedding in which all employees are involved
- A continuous flow of CSR-related messages via internal media such as the intranet, business unit, location and country magazines, as well as our corporate magazine, informs our employees about the importance of our CSR policy

Governments

The size and number of our locations means Akzo Nobel representatives cooperate with local government officials in cities, regions and countries worldwide. Legislations, permits and taxes are merely the most formal part of this.

Neighbors

Vital to our "license to operate" is having a good relationship with the neighbors of our operating sites and with society at large as a responsible company. To achieve this, we must comply with the high standards of conduct laid down in our code of conduct. We want to be transparent and to tell our neighbors what we are doing. Most of our operating sites have regular contact with their neighbors via local panels, open days or publications. In Ningbo, China,⁺ Akzo Nobel has received a series of awards from local authorities in recognition of its continuing contribution to society. Our Community Program supports employees in playing an active role in local society.

Emerging markets

Some of our products and services are tailored to alleviate problems typical to emerging markets as defined in, for example, the Millennium Development Goals. Examples from Organon, Intervet, Chelates and Salt are highlighted in the sections about these businesses.

Industry

We have contacts within the industry in various areas such as HSE and energy efficiency, with the aim of improving our performance. In order to discuss and communicate our common interests to parties such as governments or society, we participate in several industry associations, such as CEPE (the European Council of the Paint, Printing Ink and Artists' Colors Industry), CEFIC (the European Chemical Industry Council) and ACC (American Chemicals Council).

Non-Governmental Organizations

Society has a number of concerns related directly or indirectly to the operations of chemical companies. In many cases, NGOs are positioned to voice these concerns and to lobby for improvement. We continue to actively engage in a dialog with dedicated NGOs on specific items where we feel we can learn from each other. We have been discussing criteria for sustainable pulp and paper production with the WBCSD and Friends of the Earth and we are taking part in Amnesty International's round table for multinational companies on human rights.

Academia

Apart from regular contacts with scientific communities, we present the annual Akzo Nobel Science Award in recognition of groundbreaking interdisciplinary research. The award alternates between the Netherlands and Sweden.

The 2006 Akzo Nobel Science Award was won by Carlo Beenakker, professor of physics at Leiden University, for his pioneering work in the field of nanoscience.

Media

Akzo Nobel actively provides information to media, carefully balancing the need for optimal transparency and fair disclosure with other legal and business considerations such as corporate reputation and the protection of intellectual property.

General public

In some specific areas we have to deal with issues asking for clear and persuasive arguments about our opinions. We have clarified our position in policy statements on these dilemmas, such as animal testing, + biodiversity, child labor, genetic modification, vendor policy and stem cell research, details of which can be found in the Social Responsibility area of our corporate website.

Other items

Corporate citizenship

We want to contribute to the communities in which we operate without ever losing sight of who we are and what we can deliver in terms of core products, services, skills and competencies. We try to do what we do best and to restrict ourselves to areas where we really can make a difference. Our corporate citizenship philosophy is aligned with the above principle. Under the umbrella of corporate citizenship, we have three programs: the Community Program, the Education Fund and the Art Foundation, each with their own focus.

Community Program

Our Akzo Nobel Community Program, a corporate-funded worldwide corporate citizenship program, focuses on projects for local communities in the areas where we conduct our operations. The Program especially stimulates projects that include hands-on involvement of our employees, and in which they can contribute their professional skills and competences. Many are – in various ways – linked to our core business. In 2006, 200 new projects were initiated. Including the ongoing projects from 2005, in total more than 290 projects are running.

Examples include the following:

- Sexual education programs⁺ for adolescents in emerging countries by our human healthcare business Organon
- The donation of renovated cars to families in need in the United States. This so-called National Benevolence Program is a partnership between our Car Refinishes business and its customers, the car repair shops. Launched in 1999, the program involves repair shop employees donating labor, while suppliers donate parts and Akzo Nobel provides the paint
- In Korea,⁺ each month 34 employees of Marine & Protective Coatings in Anyang team up in various areas on the Western coast of Korea to collect trash, install trash bins, distribute life vests with logos on environmental protection and set up sign boards. By conducting this campaign they want to reduce contamination from the sea which is quite severe and improve the local communities' environmental awareness

At the start of the campaign in Seongumu, a small fishing village, more than 30 50-liter rubbish sacks were collected which were taken away by a local garbage truck. And at the end of the day, as promised by Site Manager Mr. Cha, who actually joined the activities, the Seongumu coastline was indeed "as clean as a whistle."

Through these activities cleaner and better environmental conditions are a clear result, but also the fishing conditions for the local community are improved.

- In Turkey, our Decorative Coatings business has established and sponsors a Technical Education Program on Paint Technologies at the Kocaeli University⁺ to help meet the need for skilled and well trained mid-level workers in Turkey. Since the establishment of this Education Program in 1994, 530 students have successfully graduated as a paint technologist. Of these students, 115 have completed an internship at our Marshall Paint facilities and 29 graduates of Kocaeli University have been recruited by Marshall Paints (the Turkish brand name of our Decorative Coatings business)
- Employees of Base Chemicals in Bitterfeld⁺ started a project to enable disabled people to enjoy nature using specially-created "wheelchair bikes"

Since the launch of the Akzo Nobel Community Program in summer 2005, tens of thousands of people have benefited from this worldwide initiative that encourages staff to contribute actively to the communities in which they work or live. Supported with a budget of EUR 5 million in 2006, around 200 highly varied projects were initiated with the hands-on involvement of our employees.

In China and Indonesia,⁺ projects were begun in collaboration with local Red Cross representatives. We decided to donate EUR 1.5 million in order to support Red Cross activities in China (EUR 700,000) and Indonesia (EUR 800,000) where Akzo Nobel employees will be involved as much as possible. The donated funds were to be spread over 2006, 2007 and first-quarter 2008.

To create even more involvement by our employees in the Program, in 2006 more than 2,000 employees took part in the first Best Practice Competition of the Community Program, with the votes spread across all 18 nominated projects. The "Key to Life" initiative in our manufacturing facilities in Itupeva, Brazil, a joint activity by our Surfactants, Polymer Chemicals and Functional Chemicals businesses, was the winning project. The project is designed to acquaint young children with the arts while keeping them off the streets and away from dangers such as drugs.

The support of the Community Program is clearly appreciated by all those concerned, as were demonstrated by the following testimonial from Brazil where employees from Car Refinishes were involved in helping homeless children from the slums: "Thanks to Akzo Nobel Casa Familia has gone from a small home with not enough beds for the children to a place where 25 children between the ages of one and 18 are raised with dignity and hope. With financial support and supplies like paints and an old car as well as cooperation between Akzo Nobel employees and Casa Familia, the project is becoming a model for children's homes throughout Brazil."

Education Fund

A special focus area of our corporate citizenship programs is primary education, one of the UN Millennium Development Goals ("Achieve Universal Primary Education"). Launched in 1994, the Akzo Nobel Education Fund was set up to support children in developing countries, mainly by financing educational projects, but also in healthcare and environmental programs. Financed by corporate funds as well as by employee donations and special actions, and supported by the expertise of Plan International, the money is used to build, equip and develop schools in the poorest areas of developing countries. In the past 12 years, more than 50 projects in 15 countries in South America, Africa and South East Asia have been financed. In 2006/2007, new educational projects in Colombia, Indonesia and Vietnam have been chosen for support, for a total

CSR governance and infrastructure

amount of USD120,000. The projects began in 2006 and are expected to be ready by mid-2007.

Art Foundation

The Akzo Nobel Art Foundation was created in 1996, when we started supporting young artists by acquiring work for the company's art collection. Reflecting Akzo Nobel's worldwide activities, the Akzo Nobel Art Foundation is building an internationally-oriented collection. The criteria are entirely in line with our corporate values: good citizenship by investing in young talent and innovation. Art as Corporate Social Responsibility means investing in the creativity and well-being of individuals in their working environment as well as an investing in the development of young artists.

"Culture is a basic need" was the title of the international conference organized by the Prince Claus Fund in The Hague in September 2006. Culture is also a basic need in a large international corporation like Akzo Nobel.

Art has always acted as an indicator of social, political and economic change. Modernization and technology go hand in hand with social and economic change. In their work artists frequently research the changing color of our society. Research and imagination⁺ are common denominators in art and in business.

At Akzo Nobel we stand for color in society. In art, in the company and as individuals.

Art as a reflection of social engagement makes developments in our society clear at an early stage. It promotes communication, where art appreciation is not just about what is good or not, but is far more about the meaning of the work and the artist.

CSR governance

In 2006, major steps were taken to embed CSR – the management of key sustainability items – into the heart of the business. Managers at all levels are now responsible for anchoring CSR in organizational structures and processes. All our businesses have set ambitious targets during strategic planning processes, the so-called three-year operational planning (TOP) and the rolling forecast (RF) and monitor progress. These items are now, at all levels of the company, firmly anchored in the personal targets and remuneration schemes of managers and employees. The CSR process is reviewed yearly in the annual letter of representation.

A key element of our CSR policy is to ensure we convey clearly to our employees that Akzo Nobel is and will remain a socially responsible company. Good governance equals sound business. For example, ensuring we conduct our business with integrity and creating innovative and sustainable products for our markets and using materials and energy efficiently not only further our business goals but also embody the core principles of our CSR policy.

CSR infrastructure

The Board of Management has set up two dedicated bodies – the CSR Advisory Group and the CSR Council – to monitor the CSR integration process, to embed CSR in the regular management cycle, to measure progress and to advise the Board of Management on Akzo Nobel's CSR strategy. The corporate director for CSR reports to the Board of Management.

All our business units have a CSR Focal Point. These Focal Points meet regularly and are a strong basis of the company's CSR policy and activities.

Auditing

The Akzo Nobel internal audit department has started to review the embedding of the CSR process with business unit management teams in Akzo Nobel. The scope of the CSR audit is to review to what extent the regular Akzo Nobel business controls have been applied to the management of sustainability items.

CSR: the financial dimension

Key financial data

(2004-2006 based on IFRS. 2001-2003 based on NL GAAP¹)

Selected financial data	IFRS			NL GAAP ¹		
	2006	2005	2004	2003	2002	2001
Revenues (EUR mln)	13,737	13,000	12,833	13,106	14,059	14,158
Operating Income (EUR mln)	1,462	1,486	1,527	1,064	1,362	1,198
Net Income (EUR mln)	1,153	961	945	602	818	671
Net Income per Share (EUR)	4.02	3.36	3.31	2.11	2.86	2.35
Dividend per Share (EUR)	1.20	1.20	1.20	1.20	1.20	1.20
Mln of Common Shares Outstanding	287.0	285.8	285.8	285.7	285.7	285.9
Capital Expenditure (EUR mln)	529	514	551	581	689	822
Operating Income as % of Revenues	10.6	11.4	11.9	8.1	9.7	8.5
Op. Income as % of Invested Capital	18.2	19.3	20.0	12.7	15.1	12.8
Interest Cover	13.2	9.5	10.6	6.4	6.7	4.7
Gearing	0.26	0.44	0.42	0.92	1.46	1.34

¹ The 2001-2003 figures have not been restated to IFRS accounting standards.

The differences mainly relate to pensions and other post-retirement benefits, the recognition of deferred taxes on intercompany profit and the recognition of goodwill. For the most part, the changed accounting is a matter of timing of the recognition of the assets, liabilities and related results.

The year 2006 was a strong year for us with revenue growth and increased operational results at all segments. Having completed a major turnaround, we launched our 'Fit for the future' strategy, building on an excellent position for accelerated growth.

A high impact development is obviously the separation that will split the company into Akzo Nobel – active in coatings and chemicals – and Organon BioSciences active in human and animal healthcare. This strategic decision was approved at the Extraordinary General Meeting of Shareholders in September. As a focused player we aim for leadership positions in our markets and want to be recognized for our strong entrepreneurial customer-focused culture.

The financial dimension of sustainability items

In this report, many of our CSR focus areas are qualified as substantial sustainability items. This is not to imply that they have no financial implications. On the contrary, we believe that these items have a strong potential impact on our financial performance and on the value of the company.

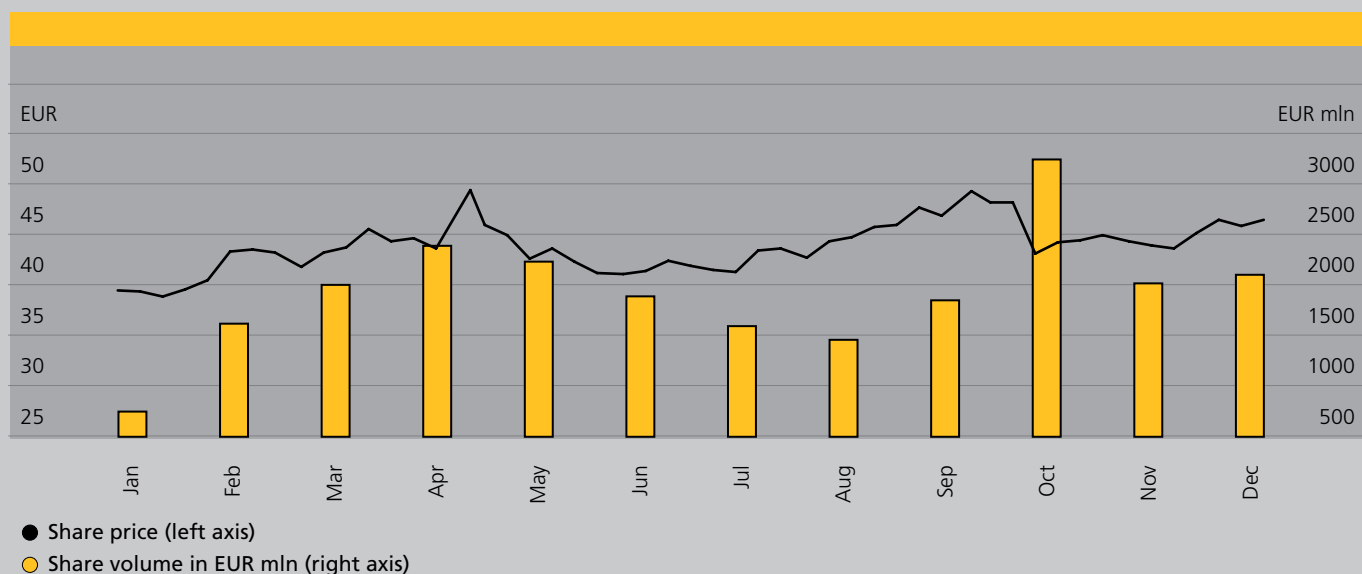
Reducing reputational risk, enhancing brand value and securing long-term access to crucial resources are strong pillars of our share price performance. Moreover, we have evidence that offering high quality products with superb environmental attributes has enhanced our reputation as a quality provider of high value products. Higher margins and a strong position in valuable markets find their way into our bottom line. Many examples have been described in this report.

In the future, many of our CSR challenges are likely to have an increased economic impact. On the one hand, experts expect higher costs because of climate change, raw material depletion, and the war for talented employees.

On the other hand, globalization and emerging markets offer vast business opportunities for our company. Remaining an agile company, equipped to face the challenges and the opportunities of a globalized economy, will define our future success. It is therefore crystal clear that the combination of non-financial and financial aspects will define our profit and loss and balance sheet.

For that reason, information on our CSR performance consistently forms part of our presentations to analysts and other financial audiences.

Share price performance and share volume in FY 2006



Emerging markets

(Focal point for accelerated growth)

Division	Mature markets per capita	Share of market	Emerging markets per capita
Paint	10-20 liters	75/25	<2 liters
Chemicals	\$1000-2000	80/20	<\$200
Plastics	100-200kg	80/20	<20kg
Paper	200-300kg	75/25	<30kg



FTSE4Good

BEST IN CLASS

environmental and
social performance

STOREBRAND SRI



Our company

Akzo Nobel is a Fortune Global 500 company and is listed on both the Euronext Amsterdam and NASDAQ stock exchanges. It is also listed on the Dow Jones Sustainability World and Stoxx Indexes and the FTSE4Good Index.

Full details of our financial performance, shares and performance-related board remuneration are available in our Annual Report 2006 and can also be found on our corporate website www.akzonobel.com.

Assurance report

To Stakeholders in Akzo Nobel NV

Engagement

We have performed an assurance engagement in accordance with Standard 3410, "Assurance standard relating to social reports". Our assurance engagement aimed to obtain reasonable assurance of the reliability of the consolidation process for the key performance indicators, and to obtain limited assurance that the other information in the 2006 CSR Report of Akzo Nobel N.V. (Akzo Nobel) is, in all material respects, an accurate and adequate representation of the policy with respect to corporate social responsibility, business operations and events during 2006. We did not perform any procedures aimed to verify the accuracy of the primary quantitative performance data, which is why we refrain from drawing any conclusions about the key performance indicators themselves. On the inside back cover of the 2006 CSR Report, the Akzo Nobel N.V. management has explained its reasons for the limitation of scope of our assurance engagement. The procedures performed in order to obtain limited assurance aim to verify the plausibility of information and probe less deeply than those performed for assurance engagements aimed at obtaining reasonable assurance.

The management's responsibility

The management of Akzo Nobel is responsible for drawing up the 2006 CSR Report in such a way that it gives an accurate and adequate view of Akzo Nobel's policy, measures and performance in the field of sustainability. That responsibility comprises, among other things, the design, implementation and maintenance of an internal control system that helps ensure that the CSR Report does not contain any material inaccuracies, as well as the selection and use of acceptable principles for measuring and presenting sustainability performance results, and the making of estimates that,

under the given circumstances, can be deemed to be reasonable. The choices made by the management, the scope of the report and the reporting principles, including the inherent specific limitations that might affect the reliability of the information included in the report, are explained on the inside back cover of this report.

The auditor's responsibility

It is our responsibility to formulate a conclusion with regard to the 2006 CSR Report of Akzo Nobel on the basis of the engagement outlined above.

Procedures

We performed our procedures in accordance with Dutch law and the requirements set out therein with respect to the independence of assurance team members. The test criteria that we used are the Sustainability Reporting Guidelines (G3) published by the Global Reporting Initiative, the social reporting guide of the Dutch Accounting Standards Board (Raad voor de Jaarverslaggeving) and Akzo Nobel's own reporting policies. We believe that these criteria are sufficient in view of the purpose of our assurance engagement.

Our principal procedures were the following:

- Obtaining insight into the industry, the characteristics of the organisation, and relevant social issues
- Reviewing the reporting principles and significant estimates and calculations used in the preparation of the 2006 CSR Report
- Assessing the reliability of the consolidation process for the key performance indicators and the plausibility of the other information in the 2006 CSR Report of Akzo Nobel, by
 - identifying inherent risks that might affect the reliability of the information and investigating the extent to which such risks are covered by internal controls

- testing, on a sample basis and insofar as relevant for our engagement, the operation of the internal controls aimed at the reliability of the consolidation process
- performing analytical procedures both at the Group and BU levels
- conducting interviews with responsible company officials in order to verify the existence of the policies and measures described in the CSR Report
- performing a limited number of sample tests to verify the substantiation of the information contained in the 2006 CSR Report
- evaluating the overall view given by the 2006 CSR Report of Akzo Nobel

Conclusion

On the basis of our procedures aimed at obtaining reasonable assurance, we conclude that the consolidation process that underlies the key performance indicators was, in all material respects, performed in a reliable manner. On the basis of our procedures aimed at obtaining limited assurance, we see no reason to conclude that the information in Akzo Nobel's 2006 CSR Report does not, in all material respects, accurately and adequately represent the corporate social responsibility policy, the business operations and events that took place in 2006, in accordance with the Global Reporting Initiative guidelines, the social reporting guide issued by the Dutch Accounting Standards Board, and the documented reporting policy of Akzo Nobel.

Ernst & Young Accountants

Arnhem, March 9, 2007

Appendices

Reporting principles+

We have a clear commitment and ambition to be best-in-class in Corporate Social Responsibility (CSR), we regard it as a continuous learning process. Within the boundaries of our Core Values and Business Principles, as well as our corporate ambition to further embed CSR into our daily business practices, we require local management and employees to find the best ways to realize our ambitions in their respective countries. We are continuously improving our management information systems and data gathering processes. Furthermore, we welcome an active dialog with our stakeholders, and give their opinions the serious consideration they deserve. With this process in mind, we expect the clarity, consistency, and accuracy of our reporting to further improve over time.

Scope

This report covers our global activities and performance in the field of CSR. Specifically it includes quantitative and qualitative data relating to the calendar year 2006. This has, by and large, been obtained from our financial management reporting system and the reporting system for corporate Health, Safety & Environment (HSE) performance indicators.

Selection of topics

We appreciate the work of the Global Reporting Initiative. We have used their Sustainability Reporting Guidelines as the framework for the selection of topics for this report. An index of all indicators used according to the Global Reporting Initiative (GRI) Guidelines can be found on our corporate website (www.akzonobel.com). We also used information from third party questionnaires, notably the influential Dow Jones Sustainability Indices, and feedback from various stakeholders.

Reporting process

We have no separate, overall information system in place for CSR reporting, which is comparable with the financial management information system used for obtaining information for the annual report, nor are we developing such a system. Instead, we would prefer to integrate CSR aspects into our standard reporting systems – a logical consequence of seeing CSR as a normal part of business. One example of such reporting systems is a database for yearly performance data covering our 14 corporate HSE parameters, which we are developing at this moment.

We are confident in the overall reliability of the data reported, but recognize that some of these data are subject to a degree of uncertainty inherent to limitations associated with measuring, calculating, or estimating data.

At the end of the process, senior managers approved the data used in the sections of the CSR report relating to their respective areas of responsibility.

This 2006 report has been reviewed by independent, external auditors. We requested the external auditors to review the reliability of the consolidation process for the quantitative data (in addition to the review of the reliability of the descriptive data in relation to policy and management). The verification of the reliability of the key performance indicators was not part of this engagement.

CSR on the web

Appendices on www.akzonobel.com

- GRI 3 guidelines
- Global Responsible Care Charter – Akzo Nobel is a signatory
- UN Global Compact Statement – Akzo Nobel embraces, supports and enacts, within its sphere of influence, the Ten Principles of the Global Compact. This is a set of core values in the areas of human rights, labor standards, the environment and anti corruption
- A glossary of CSR-related definitions.

Readers' guide

This report contains the CSR performance of Akzo Nobel in 2006. We trust it gives a balanced and fair picture of our objectives and results in this area. Since we accelerated our CSR agenda in 2004, the number of policies, examples and best practices has grown rapidly. It is no longer possible to give an exhaustive overview of them all while maintaining the readability of the report. We have therefore chosen to put many of these examples in a special section of our website. The reader who desires a good picture of our CSR performance will get this by reading the report. Stakeholders who want to get a more detailed picture by exploring more of our examples are referred to our website, www.akzonobel.com.

Further information about Akzo Nobel

This report only covers limited aspects of our activities. For a more complete picture of our activities we refer readers to our annual reports and the Annual Report on Form 20-F filed with the SEC in the U.S., as well as our corporate website www.akzonobel.com.

Safe harbor statement*

This CSR report contains statements that address such key issues as Akzo Nobel's growth strategy, future financial results, market positions, product development, pharmaceutical products in the pipeline and product approvals. Such statements should be carefully considered and it should be understood that many factors could cause estimated and actual results to differ from these statements.

These factors include, but are not limited to price fluctuations, currency fluctuations, progress of drug development, clinical testing and regulatory approval, developments in raw-material and personnel costs, pensions, physical and environmental risks, legal issues, and legislative, fiscal and other regulatory measures. Stated competitive positions are based on management estimates supported by information provided by specialized external agencies.

For a more comprehensive discussion of the risk factors affecting our business please see our Annual Report on Form 20-F filed with the United States Securities and Exchange Commission, a copy of which can be found on the company's corporate website www.akzonobel.com. The 2006 Annual Report on Form 20-F will be available in the second quarter of 2007.

Disclaimer

In this report, great care has been taken in drawing up the properties and qualifications of the product features. No rights can be derived from these descriptions. The reader is advised to consult the available product specifications themselves. These are available through the relevant business units. In this report the terms "Akzo Nobel" and "the company" refer to Akzo Nobel N.V. and its consolidated companies in general. The company is a holding company registered in the Netherlands. Business activities are conducted by operating subsidiaries throughout the world. The terms "we," "our," and "us" are used to describe the company or refer to the business concerned.

Design and Production

Addison Corporate Marketing
Akzo Nobel Corporate Marketing

Lithography and printing

Tesink bv, Zutphen, the Netherlands

* Pursuant to the U.S. Private Securities Litigation Reform Act 1995.

Great care has been taken drawing up this CSR Report. The printed version (page 1-49) has been reviewed by independent, external auditors. The pages with examples from the business (50-75) are available online only. This final section was not part of the formal auditing process. The print report can be ordered via ancsr@akzonobel.com.

Decorative Coatings Europe and Decorative Coatings International

Next wave product technology: leadership in VOC Friendly Coatings (page 8)

Next wave technology is the umbrella term used for new, more VOC-friendly products introduced over the past two years. It emphasizes the product leadership of environmentally-friendly products that build on our European heritage.

Deco North America has introduced several products that meet stricter VOC (Volatile Organic Compound) requirements. We have capitalized on this using our proven European alkyd technology. The products have been tailored to North American tastes and lifestyles.

The new-to-North America formulations provide a range of benefits including beautiful appearance, excellent durability, superior penetration and adhesion, a good wet edge, ease of use and clean-up. These qualities come on top of lower VOC emissions, making them not only easier to use but also more environmentally friendly.

The Sikkens 10 year translucent coating system guarantee – Accoya™ joinery and cladding (page 8)

The Sikkens joinery range of factory applied coating systems are now available with a 10 year translucent coating system guarantee. The guarantee is designed to cover embrittlement, flaking or cracking of the coating system due to a coating manufacturing fault.

For further information, e-mail sikkens@sis.akzobel.com

Industrial Activities: Industrial Finishes

Pelex project: zero solvent emission coil coating (page 9)

The Pelex project aims to convert existing solvent-based Coil Coating paint formulations into formulations with zero solvent emissions. Water will replace the current solvents used as diluents to allow

high-speed paint application. Selective specialized chemical modifications will make it possible to retain the same resins and pigments with their proven performance. Coil Coating topcoats worldwide are predominantly based on solvent containing polyester resins. Development work has progressed to a pilot line trial of solvent-free polyester latex called Pelex. When fully developed, the Pelex system will result in operational health and safety gains with the total removal of hazard solvent requiring production, transportation and disposal. This will help reduce world greenhouse emissions.

Working conditions and safety at Akzo Nobel and customer plants will also improve, with no net cost to the customer.

Industrial Activities: Powder Coatings

UV waterborne coatings for the kitchen cabinet industry (page 10)

The first is a 100% solids recyclable (overspray from application process is recycled back into the process coating) and the other a "0" VOC (VOC free) waterborne coating. Also helping conserve energy is an all UV finishing system for flat line wood products. Finishing systems consist of a UV basecoat, topcoat and inks.

With the movement of the furniture industry to China we will need to define growth in areas such as UV wood flooring, joinery and newer kitchen cabinet technologies. Another area for energy conservation is in the development of curing technology for coatings applications. Our Coil sub-business unit is developing primers and topcoats for coil applications using NIR (near infra-red curing) technology. The Wood sub-business unit is working to a lower energy form of NIR based on halogen lights for wood applications where cure temperatures are lower.

Additional benefits of the above products for our customers and Akzo Nobel include productivity savings, reduced waste, lower capital costs, inventory reduction and reduced emissions of ozone-depleting chemicals.

Additional information

Low emission chipboard adhesive (page 10)

Akzo Nobel's Casco Adhesives business successfully developed a low-emission chipboard adhesive in partnership with Swedish chipboard producing company Byggelit. The product, which took 12 months to develop, is remarkable because it meets the Japanese requirements for formaldehyde emissions, the toughest in the world.

"As far as I know, there is no other manufacturer in Europe selling such a product," says Eva Hörwing, President of Byggelit. "Our chipboards have borne the Nordic Swan eco label for many years and are constantly inspected, but this chipboard meets even tougher emission requirements. Basically, it emits at the same levels as ordinary wood."

This product, designed to meet the rigid Japanese F**** standard for the housing industry, has the potential to open new business in Japan and provide a competitive edge. It will translate into growth opportunities for both the Industrial Finishes business unit and our customers and will mean it can be sold to Japanese markets, where there is demand for low-emission particle board.

Adhesives system with a highly ecologically-friendly profile (page 10)

The product in development will be based on the use of bio-renewable starches and soy proteins combined with safe chemistry. The project's goal is to have a positive HSE impact in the production of the adhesives and the use of the product at customer locations. A wide range of candidates has been evaluated and several large-scale customer line trials have been carried out.

Nanotechnological Research & Development (page 10)

Virtually all our business segments have some level of nano R&D. They are working with both external raw material suppliers and captive technologies. Wood Coatings is looking to upgrade abrasion resistance to maintain aesthetics throughout the life of its floor coatings. Specialty Plastics is improving abrasion resistance with special

focus on resistance to scratch as well as gouge resistance and impact. Within Coil Coatings, nanotechnology is focused on improved weather resistance, less dirt pick-up and abrasion resistance. Initial Florida weather testing results are very positive.

There are so many possibilities and opportunities that a company such as Akzo Nobel has to be selective in where to direct its nano R&D efforts. We are the world's largest supplier of colloidal silica, which consists of silica-based nanoparticles in aqueous dispersions, with our products Nyocol and Bindzil. Applications include manufacturing of high-grade paper and refractory materials. Based on our knowledge of nano silica and on a patented environmentally-friendly process for manufacturing hydrotalcite, an anionic synthetic clay that consists of nano platelets, our innovation unit has developed processes to make these nanospheres and platelets fully compatible with many kinds of polymer matrices derived from various organic groups. Test samples are being evaluated by a variety of potential customers, such as many of our company's Coatings businesses and other industries such as polymer producers, the packaging and car tire industries. We are heavily involved in developing nanotechnology applications for car paints and wood-floor protective coatings.

Nanotechnology allows us to develop very hard materials that are wear-resistant and easy to clean, so extending a product's life. Akzo Nobel participates in the European Union-funded AMBIO Project, which is aimed at developing antifouling coatings based on nanostructured surfaces without releasing toxic biocides.

Product safety is of the highest priority and so, in our own R&D Projects as well as in our cooperation with potential customers and suppliers, we assess any potential risks of exposure to free nano particles that are not incorporated in a matrix and can generally conclude that they are very low or non-existent. We are currently testing the toxicity to human health of some end-products with higher exposure profiles. We have developed manufacturing

methods to process nano spheres and platelets whereby free nano particles do not occur. The nanospheres only "exist" in aqueous dispersions; the hydrotalcite particles in their original form are in the micron range so are comparable to conventional fillers. Only after incorporation in the polymer matrix are they delaminated to the nanoscale range.

The road to safe and environmentally benign adhesives for the upholstery, mattress and foam industry (page 10)

In the upholstery industry there is an urgent need to shift away from the classical solvent-borne adhesives systems. A one-component water-based system was developed several years ago, but it had inferior curing times and was expensive. Recently, our Adhesives business has developed a two-component adhesive system, which surmounts these problems. Initial problems in maintaining the correct glue/catalyst proportion during longer processing times can be overcome by using spraying equipment developed expressly for adhesive spraying. The two component waterborne glues have now become an established system. They currently form 25% of the market and are rapidly increasing their market share.

Certain drawbacks of solvent-borne adhesives have increased the popularity of water-borne glues. One concern that is unique to the upholstery industry is the accumulation of static electricity in the foam rubber parts during storage. This electricity can cause a fire, a risk that is increased when the foam rubber is bonded with a solvent-borne glue. Many accidents have occurred because of this. Since water-borne adhesives are non-combustible, they reduce the risk of fire. The environmental advantages of water-borne systems are obvious. There is no organic solvent in the adhesives, nor is there a formaldehyde and residual smell from the end products, and this appeals to environmentally conscious users of the furniture.

PET soft drinks bottles recycling (page 10)

Empty polyethylene terephthalate, or PET, soft drinks bottles pollute the rivers of Brazil's large cities. We are incorporating

these empty bottles in our alkyd and polyester resins to help reduce environmental pollution.

PET is produced by reacting ethylene glycol with terephthalic acid, common raw materials used in the preparation of alkyd and polyester polymers (resins) well known to the coatings industry. We are currently recycling 400 tons/year of plastic bottles in our resins at a use level of 25% in our polyester resins and 12%-20% in our alkyd resins with hopes to further increasing its usage. Alkyd resins are of special interest because they are based on bio-renewable oils such as soybean or coconut oils where in combination with PET over 60% of the polymer is ecological active. In addition to the ecological benefits of recycling plastic bottles we have reduced our raw material cost by 10-20%.

Powder Coatings product innovation (page 11)

Within Powder Coatings, innovation is a carefully managed process. Two years ago, the business introduced the "Creativity for Change" (C4C) process – a so-called stage gate process in which Global Product Development projects reach a number of milestones for approval by the R&D steering team. Included in the approval criteria are many HSE and product stewardship-related checks, indeed some projects themselves are HSE driven in their objectives. In this process there is a structured input from customers. The diverse tools used to generate new product ideas from the market include online customer surveys, questionnaires, market research and focus groups. The ideas are assessed by marketing and technical teams for commercial interest and technical feasibility.

Interpon XTR (page 11)

Interpon XTR reduces raw material consumption. Developing coatings suitable for low temperature curing helps save energy consumption in the value chain. Our ongoing efforts to reduce waste in our own and customers' processes also help reduce material consumption. Because of our unique particle management technology we have managed to achieve extremely thin layers with excellent surface coverage.

Additional information

Our product Interpon XTR is applied by several customers on aluminum evaporators at an average of 18 micron (0,018 mm) and on refrigeration panels at an average of 33 micron.

Chemical leasing in Egypt (page 11)

In a joint project supported by UNIDO (United Nations Industrial Development Organization) and the Egyptian MTI (Ministry of Trade and Industry), Akzo Nobel Powder Coatings SAE in Egypt has worked with key customers to optimize coatings application and recycling processes to give benefits to both the customer and ourselves.

In 2005 Akzo Nobel acquired a controlling 60% share in Egypt's leading powder coatings manufacturer, Coatech For Chemical Industries SAE. The new joint venture is named Akzo Nobel Powder Coatings SAE and operates from Coatech's existing facilities in Cairo. Over the past year Coatech have been working with key customers on projects supported by UNIDO and the MTI. UNIDO and MTI established the Egypt National Cleaner Production Center (ENCPC) to enhance the competitiveness and productivity of national industry. This was to be achieved by increased application of "Cleaner Production" (CP) methodologies and "Environmentally Sound Technologies" (EST). Powder Coatings is recognized as an environmentally sound technology, primarily because it does not contain volatile organic compounds (VOC). ENCPC facilitated a "Chemical Leasing (ChL) Project" between Coatech, the leading supplier of electrostatic powder coatings and an existing customer Unionaire, a manufacturer of air conditioning units. Until this point the traditional model of co-operation existed between Coatech and Unionaire –payment based on volume, high Powder losses, Coatech with no responsibility for the powder losses, unnecessarily high film thicknesses on coated articles, low customer loyalty and satisfaction, high consumption, high costs, compromised product competitiveness and non-skilled applicators. ENCPC provided support in the areas of audits and process optimization, on job training (OJT) and cost benefit analyses. Now Coatech supports

the whole stream of powder coatings at the customer plant and customer losses have been halved. A standard recycling procedure has been established. Audits optimize the application process with controlled technical adjustments made. Systematic OJT is established and payment based on coverage under discussion.

Benefits can be summarized as follows:

Customer

- Cost savings
- Less material consumption per m²
- Optimized production line
- Improved product quality
- Improved chemicals management
- Efficient supplier as partner
- Positive environmental impacts

Akzo Nobel

- Optimized production (modified product)
- Competitive and unique service
- Client loyalty (reproducible with other clients)
- Enhanced after sales support service
- Reputation as experts consultants in this field, supported by ENCPC / UNIDO

Coatech have reproduced this approach with ABB, a renowned manufacturer of electrical cabinets, again halving customer powder losses. Together with ENCPC, Coatech will be approaching more customers over the coming months.

Coatech are now in consultation with TUV SUD Management Service, the renowned German management systems certifying body, to draft guidelines for implementation and certification to ChL. Note that Coatech is certified by TUV to the QMS and EMS standards ISO9001 and ISO14001.

Coatech presented the ChL project at the United Nations Environment Program (UNEP) International Conference on Chemical Management (ICCM) in Dubai 4-6 February 2006. The centre of attention at the ICCM was the endorsement of SAICM, the "Strategic Approach to International Chemicals Management." UNIDO's side event "Cleaner Production and Chemical Leasing: a Global win-win strategy for risk management and SAICM"

included the presentation by Ashraf El Wassify, Coatech Deputy GM. For a full report on the UNIDO side event see the link below.

www.unido.org/en/doc/48566#story1

As a final point UNIDO ENPC is aware that Akzo Nobel is a signatory to the UN Global Compact since 1994, and is keen to continue cooperation with Akzo Nobel Powder Coatings SAE on further Public-Private partnership projects supporting sustainable industrial development.

Marine & Protective Coatings

Interchar (page 12)

In 2005, our Protective Coatings business introduced Interchar® 212, a new generation of fire-proofing material, which provides unique protection to high-rise structures and public buildings. Interchar® 212, is derived from our proven Chartek® technology (see below), which was originally developed more than 30 years ago to meet the needs of NASA's Apollo program. It offers the anti-corrosion and extreme-heat fire protection never before available to the building industry, while at the same time delivering the aesthetic versatility architects seek for exposed steel designs. Interchar® provides up to three hours of fire protection, helping prevent steel infrastructures from collapsing prematurely and giving building occupants more time to evacuate safely.

Chartek (page 12)

Our Chartek® coatings have been protecting structures in high-risk industry applications for more than 30 years. Since its introduction, the Chartek® range of products has been continuously improved as the demand for epoxy intumescent fireproofing materials increases. Chartek® 7, one of the latest developments, is currently the world's lightest such material. When exposed to fire, Chartek 7 expands by up to six times its application thickness and turns into a carbonaceous char, capable of withstanding temperatures up to 1,200°C. It will give Europe's first liquefied natural gas (LNG) export terminal on the island of Melkoya, just off Hammerfest in the most northern

part of Norway, the best possible protection against fire and corrosion. Named Snohvit, the EUR 6.3 billion project will be completed in 2007. In 2006, other major Chartek® contracts were secured for application in the development of the Kashagan Field (the world's largest oil find in 30 years) in Kazakhstan and the new control tower at London's Heathrow Airport.

Intersleek 700 (page 12)

Since our International Paint business introduced Intersleek®, a revolutionary foul release coating for the underwater hulls of deep-sea vessels in 1999, it has been proven to provide significant economic and environmental benefits. The silicone-based product does not release biocides or any other chemicals that harm marine life and its ultra smooth surface can reduce vessel fuel consumption and CO₂ and SO₂ emissions. During its first years of existence, Intersleek® could only be applied during maintenance dockings, but in 2005 it was for the first time applied to a new build vessel in Korea: the sides of a large LNG carrier were coated with Intersleek® during its pre-delivery dry docking. International Paint views the success of this application as a potential turning point in overcoming the practical difficulties of applying silicone-based coatings at new building. It is expected to herald a new era in shipbuilding and coatings methodology.

Interplate® Zero (page 12)

Shop or pre-construction primers were once one of the most important innovations in shipbuilding technology. The challenge for the marine coatings industry has been to develop second-generation shop primers that continually improve shipbuilding productivity while benefiting operator health and safety, and the environment. Interplate® Zero, recently developed by our International Paint business, is a new, patented, water-based, weldable and over coatable zinc silicate shop primer which emits no VOCs. Unlike currently available water-based zinc silicate products, which require specialized application equipment, Interplate® Zero can be applied using standard airless spray as used by most shop primer application facilities worldwide. Interplate® Zero thus

combines excellent functionality, application efficiency and superior ecological performance. Its eco-efficiency has been verified by an in-depth eco-efficiency analysis.

Antifoulings for yachts (page 12)

Pleasure craft typically spend the vast majority of time stationary on their moorings. This presents a challenge in terms of preventing fouling settling on the underwater areas. Movement through water is typically not regular enough or fast enough for foul-release coatings to be effective. For yachts and boats moored in the more environmentally sensitive areas International Paint have developed and introduced a range of biocide-free and reduced biocide bottom paints. Customers in Scandinavia for example can choose from a range of products such as VC®17 New Technology and Micron® WQ specifically designed to suit the different salinities and fouling challenges of the water on the east and west coasts of Sweden.

Aerospace Coatings for the future (page 12)

Aerospace finishes are developed in close cooperation with our aviation industry customers such as Airbus and Boeing to achieve optimum eco-efficiency in the complete product value chain. The completely new ecoefficient concepts (relating to fuel economy) of the Airbus A380 and Boeing 787 require new coatings properties such as extreme flexibility, low weight, smoothness, heat reflectivity and protection against harm from chemicals and ultra-violet light. Ease of maintenance is also a factor – the Boeing 787, for instance, requires new painting systems that allow the decorative layers to be removed while leaving the basic protective coating layer intact. We are developing a highly conductive exterior coating to dissipate electrical charge in case of lightning strikes. In developing such coatings, we pay due attention to product stewardship items such as eliminating raw materials of high concern and VOC compliance.

- We developed the extremely flexible, low-weight and smooth Aeroflex® High Solid Wing Coating Topcoat in 2004. This extremely durable coating fits in

with the aircraft's eight-year heavy maintenance interval

- A second-generation selectively removable system with an intermediate layer between primer and topcoat, which enables the selective chemical removal of only the topcoat during maintenance, received Airbus A380 approval in 2005
- Also for the Airbus A380, a waterborne interior coating for structural components called Aerowave® has been developed
- For both the Airbus A380 and Boeing 787, basecoat/clearcoat systems to eventually replace the high solids single layer topcoats currently used are under development. Such systems could further extend the durability of the exterior coatings and would include optimized heat reflectivity
- In October 2006, we signed a commercial licensing agreement for developing aerospace primers based on breakthrough chromate free magnesium technology

Akzo Nobel secures license for breakthrough Aerospace primer technology (page 12)

Our Aerospace Coatings business last year became the first to develop products containing breakthrough chromate-free technology following the signing of a commercial licensing agreement with the North Dakota State University Research Foundation (NDSU).

Researchers at NDSU have developed primer technology for coating aluminum aircraft structures based on magnesium, rather than chromate. Chromate is a harmful substance that is highly regulated in the U.S. and coming under increasing pressure in Europe. This pioneering corrosioninhibiting technology, the first to be just as effective as chromate, will now be incorporated into some of Akzo Nobel's aerospace coatings products.

"Akzo Nobel is always striving to develop and embrace innovative technology and what's special about this agreement is that it also has positive implications for the environment," said Akzo Nobel Chief Executive Hans Wijers, who is also the board member responsible for Coatings.

Additional information

"We will be the only paint manufacturer to use this state-of-the-art technology, which represents another significant coup for our Aerospace Coatings business."

Chromate-free primers have existed for many years but, despite being more environmentally friendly, none provide the anti-corrosive properties of chromate, which is highly effective at inhibiting corrosion of the high-strength aluminum alloys used to manufacture aircraft. The magnesium technology Akzo Nobel is now using is the first non-chrome corrosion inhibiting system to perform as well as chromate in laboratory tests.

Using this technology will have cost benefits for airlines because it will remove the need for mandatory extra control measures designed to reduce exposure to chromate. Primers using magnesium will also have the potential to be lower in density than chromate primers, which will reduce weight and mean lower fuel consumption.

Car Refinishes

Sikkens Autoclear UV, a unique low-energy, low-VOC clear coat (page 13)

Sikkens Autoclear UV uses UVA light to achieve fast drying times, reducing cycle times and energy cost for customers. Whereas UV-curing technologies use the more harmful B light, in curing Sikkens Autoclear UV both types of radiation can be used. This makes it friendly to the environment and to users. The reduction in drying time and temperature is spectacular: while conventional clear coats often require 30-60 minutes drying at 60°C, Sikkens Autoclear UV dries in six minutes at room temperature. Other properties include:

- Energy costs are kept down because the spray booth does not need to be heated
- An exceptionally long pot life, so the product can be used all day long with just one mix – cutting down on waste
- A high-gloss level is delivered with excellent scratch-resistant properties and durability
- A high-solids product that complies with the latest VOC legislation

R&D co-worker Nazire Dogan was awarded the prestigious Paul Dufour Award for the best paper at the RadTech Europe Conference & Exhibition 2005 for "Fast UV – A curable clear coat". The paper describes her development work paving the way for the commercial launch of clear coat UV in 2006 in the UK, Belgium, Germany and the Netherlands.

Sikkens Autosurfacers Rapid, a sanding and non-sanding primer/filler with an extremely short drying time at room temperature was introduced on to the EMEA market in 2006.

Low VOC topcoat for commercial vehicle market (page 13)

In 2006, Sikkens Autoclear BT LV351, a low VOC direct-gloss topcoat product was developed specifically for the commercial vehicle market. It was introduced in the Nordic and Benelux countries and will be introduced in remaining EU countries in 2007.

BT LV351 is special for a number of reasons, such as:

- It contains no lead or chrome, so is more environmentally- and user-friendly
- It is a high-solids product with a VOC, or solvent, content of less than 420 grams per liter ready to spray. Compared with normal medium solids topcoat, this represents a solvent emission reduction of around 25% for each liter sprayed
- In addition to reducing the solvent emission per liter of paint sprayed, the fact that LV351 has a higher solids content means that each liter of paint sprayed actually covers a larger area and at a higher film thickness
- In practice, this means paint volume savings of up to 30% versus medium solids products, which is because a job can be finished with fewer coats
- A total solvent emission reduction of around 45% on the painted job can be easily achieved
- In most cases, a job can be finished with 1.5 coats, with no time between coats. This compares with medium solids products where normally two or more single coats must be applied with a waiting time between each of up to

15 minutes. This means faster painting, cutting time and energy costs

- Even with the latest high efficiency spray guns, almost 40% of the paint sprayed does not land on the job and ends up in the spray booth filters as waste. Using LV351 and applying fewer coats means more paint is sprayed effectively with less waste in the spray booth filters

Design for the Environment (page 13)

The DfE Program is working with the automotive repair industry and individual shops to increase awareness of the health and environmental concerns associated with refinishing activities and to identify and encourage the use of safer, cleaner, more efficient practices and technologies. The strategy is straightforward: best practices and use of more efficient equipment, such as HVLP (high volume low pressure) spray guns, will help prevent pollution before it is created, and appropriate protective equipment and control technology will reduce worker and environmental exposure and risk.

Akzo Nobel has worked closely with members of the DfE team for several years, helping them to understand the paint supply chain and other nuances of the business. The company has also provided health and safety documentation for the EPA website.

Akzo Nobel invited the expert panel to evaluate the collision repair instruction center (CRIC) in Norcross, Georgia. The training facility is recommended for best practices, becoming the first automotive paint manufacturer training facility to receive this designation.

Alan Craighead, Senior Technical Manager, says he and his team evaluated the best practices and made suggestions to the DfE committee about environmentally-friendly practices based on their experience, including:

- The availability of plural component application equipment that allows painters in the body shop environment to spray with minimal waste
- An effective way to capture unused paint and dispose of a paint container: drain

and empty into an approved container, then dry before discarding

- The availability of a portable hood extraction unit that is designed for priming and painting in workshops and other suitable areas without the need of a spray booth, helping minimize fumes
- A water-based gun-cleaning machine invented by an Acoat selected customer

“Akzo Nobel is very willing to work with us and discuss painting methods that optimize safety for the environment,” said Mary Cushmac, a member of the EPA’s design for the environment team. “We look forward to continuing this dialogue and partnering together to develop ways to deliver the message about environmentally safe methods and encourage collision repair shops to implement them.”

Akzo Nobel car refinishes is committed to implementing methods to protect health and safety and to setting an example for collision repair shops. Training programs at the CRIC emphasize best practice guidelines, and account managers work closely with shops to help guide them toward a safer working environment.

Together with the DfE, the company is currently brainstorming ideas to communicate and deliver the best practices developed by the EPA to its customers. More broadly, there is a challenge to reach the 50,000 shops that comprise the collision repair industry in North America. All these efforts involve Akzo Nobel employees in actions that will benefit the environment and the health and safety of others.

Everyone at Akzo Nobel Car Refinishes takes pride in its leadership in meeting environmental standards, its recommendations in shaping guidelines, and its responsibility to deliver the message to our customers and to the collision repair industry. As a leader in this area, Akzo Nobel improves the professionalism and safety of the collision repair industry and, most importantly, helps protect the environment.

Akzo Nobel Car Refinishes North America joins with the EPA to promote best practices for the collision repair industry (page 13)

Meeting environmental standards is an essential corporate responsibility for paint and coatings manufacturers, and for the businesses that rely on their products. That’s why Akzo Nobel Car Refinishes North America is working closely with the Environmental Protection Agency’s Design for the Environment (DfE) to develop and communicate “Best Practices” standards for collision repair shops.

By helping to establish, communicate and implement environmentally responsible practices that help its customers maintain profitability, Akzo Nobel enhances its position as an innovative, forward-thinking market leader.

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Akzo Nobel has worked closely with members of the DfE team for several years, helping them to understand the paint supply chain and other nuances of the business. The company has also provided health and safety documentation for the EPA website.

Earlier this year, Akzo Nobel invited the expert panel to the Collision Repair Instruction Center (CRIC) in Norcross, Georgia for an evaluation of its facility. The training facility has been recommended for “Best Practices” recognition, and when received, the CRIC will be the first automotive paint manufacturer’s training facility to receive this designation.

Alan Craighead, Senior Technical Manager, notes that he and his team were able to evaluate the “Best Practices” and make several suggestions to the DfE committee about environmentally friendly practices based on their experience, including:

1. The availability of plural component application equipment that allows painters in the body shop environment to spray with minimal waste
2. An effective way to capture unused paint and dispose of a paint container: drain and empty into an approved container, then dry before discarding
3. The availability of a portable hood extraction unit that is designed for priming and painting in workshops and other suitable areas without the need of a spray booth, helping to minimize fumes
4. A water-based gun-cleaning machine invented by an Acoat selected customer

“Akzo Nobel is very willing to work with us and discuss painting methods that optimize safety for the environment,” said Mary Cushmac, a member of the EPA’s Design for the Environment team. “We look forward to continuing this dialogue and partnering together to develop ways to deliver the message about environmentally-safe methods and encourage collision repair shops to implement them.”

Akzo Nobel Car Refinishes is committed to putting into practice methods to protect the health and safety of others, and to setting an example for collision repair shops. Training programs at the CRIC emphasize Best Practice guidelines, and account managers work closely with shops to help guide them toward a safer working environment.

Together with the DfE, the company is currently brainstorming ideas to communicate and deliver the “Best Practices” developed by the EPA to its customers. More broadly, there’s a challenge to reach the 50,000 shops that comprise the collision repair industry in North America. All of these efforts involve Akzo Nobel employees in actions that will have a positive impact on the environment and the health and safety of others.

Additional information

Everyone at Akzo Nobel Car Refinishes takes pride in its leadership in meeting environmental standards, its recommendations in shaping guidelines, and its responsibility to deliver the message to our customers and to the collision repair industry. As a leader in this area, Akzo Nobel improves the professionalism and safety of the collision repair industry, and most importantly, helps protect the safety of the environment.

Aquifer (page 13) **Sassenheim (NL)**

At our Sassenheim site in the Netherlands, an aquifer installation came on stream in 2006, reducing drinking water consumption and significantly cutting energy consumption and related CO₂ emission.

The project was carried out in cooperation with energy supplier Nuon. Until 2006, drinking water was used to cool our factory's pigment mills and the used but uncontaminated water was directly discharged into surface water. In the new aquifer installation, cooling is done by means of a closed circulation system using deep well groundwater. The water is returned to water carrying layers at a distance from the intake. On average no energy is added to the underground. The absorbed energy is used in winter to preheat ventilation air in our buildings. In addition heat is being removed in a cooling tower. The installation saves 85,000 m³ of drinking water per year, reduces energy consumption and prevents the emission of 250 tons of CO₂.

Amersfoort (NL)

Akzo Nobel Chemicals in Amersfoort has opted for durable energy generating for her new head office. The heating and the cooling of the building will be achieved by the use of a water pump in combination with an underground thermal energy storage system using an aquifer. The entire building will be provided with low temperature heating and high temperature cooling. Extra energy costs will be achieved by not applying offpeak night tariffs.

The working of the system is as follows: in the summer months the water pump produces cold water for the cooling of the building. During the production of the cooling a remaining amount of heat is

released, which is stored in a water carrying layer in the ground. This underground thermal layer, which is between 30 to 100 meters deep, is also known as the aquifer. In the winter the heat is drawn and pumped up from the ground. The temperature of the water will then be 18 degrees. In the next stage the water drawn by the heating pump will extract energy whereby on the warm side of the water pump a water temperature will be reached to a maximum of 55 degrees. By the production of the heat, cooling is released which is then stored in the ground. The system makes use of two sources, namely a cold and warm source. Green current has been chosen for the use of electricity.

Akzo Nobel's power station meets the strongest environmental standards. Together with the purchase of green current it can be said that CO₂ emission free energy generating is in use.

Pulp & Paper Chemicals

Kromasil (page 16)

High-performance liquid chromatography (HPLC) is used as a separation method in analytical chemistry as well as to purify active substances in manufacturing pharmaceuticals. Exubera, one such pharmaceutical and the first inhalable insulin, was approved in 2006 by the U.S. Food and Drug Administration. This means millions of diabetes sufferers need no longer depend on injections and will instead be able to take their insulin dose with an inhaler. Kromasil will be used for the qualified purification of insulin in the industrial manufacture of Exubera.

Permascand (page 16)

Permascand is a leading producer of electrodes and other equipment for the electrochemical industry. Its products are used in chlor-alkali and sodium-chlorate manufacturing, important processes within Akzo Nobel.

Permascand is developing an activated cathode that may save up to 8% of electric energy consumption in the energy-intensive production of chlorate. The project is in the initial laboratory screening phase.

Purate (page 16)

Purate is a system for generating chlorine dioxide to disinfect water. The technology has substantial cost and environmental advantages over existing methods and an increasing number of units have been put into operation in North and South America and Europe in recent years.

It replaces biocides in pulp mills, and in Apulia, in southern Italy, 14 purate generators have been installed, helping to supply around five million people with their daily drinking water.

Product stewardship evaluators (page 16)

Our Pulp & Paper business Eka North America has set up a team of 40 product stewardship evaluators. Originally this program was designed to fulfill the requirements of the Canadian Chemical Producers Association (CCPA) and later also of the American Chemistry Council (ACC) as part of our commitment to the principles of these organizations, for example Responsible Care®.

The team is tasked with conducting HSE evaluations related to the handling, storage and use of our products, with an emphasis on sodium chlorate and hydrogen peroxide at all customer locations over a four-year period. The team conducts evaluations, either by telephone or on-site, and makes recommendations to increase or maintain the safe use of Eka's products based on site observations.

In 2005, 67 sites were assessed and in 2006, more than 60 additional ones. The program and its associated processes were featured by the ACC at its global Chemical Regulations Conference in Baltimore, Maryland, in March 2006 as a "best practice for chemical prioritization".

Eka's process was showcased as an example for companies who may have difficulty establishing or implementing their own product stewardship programs. In a December 2006 "web cast workshop" on product stewardship and responsible care, the ACC again used Eka's program and processes – albeit anonymously – as examples of high quality and effective ways

to fulfill the product stewardship aspects of Responsible Care®.

Functional Chemicals

Membrane technology – membrane electrolyses, a redeemed energy saving promise. (page 18)

Showing the strong commitment to use the most advanced technology, minimizing energy consumptions and improving environmental performance, Akzo Nobel was one of the first companies to choose the membrane technology for large scale production of chlorine and caustic soda. This long-term commitment is recently again demonstrated by the restructuring of the Akzo Nobel chlorine caustic production technology from 65% membrane, 29% mercury and 6% diaphragm end 2004 to currently more than 85% membrane technology against 31% of the chlorine membrane capacity (2005) in Europe.

Many of our daily used products are related to chlorine and caustic. Chlorine and caustic are produced by dissolving salt (sodium chloride) in water and passing a strong electrical current through the brine solution. For the production it is necessary to keep the in the process formed chlorine separated from the also formed caustic soda and hydrogen. The three currently in use production processes are characterized by the means of separating these products:

1. Mercury; mercury electrolyses
2. Diaphragm (asbestos or non asbestos); diaphragm electrolyses
3. An ion exchange membrane; the membrane electrolyses

Mercury and diaphragm electrolyses are over 100 years old, while the membrane process is a young technology and introduced in the early 1970s. Ion exchange membranes were initially developed for fuel cells used in Space travel and later modified for electrolyses purposes. Nowadays the membrane electrolysis is the preferred choice because it uses less energy and is environmentally more sustainable (no mercury, no asbestos and no hazardous waste).

Electricity represents the major part of the variable costs of the chlorine production. Soon after the industrial introduction of the membrane technology, Akzo Nobel recognized the environmental advantages and energy saving potential and decided to use the new technology for the production of 250,000 ton of Chlorine in Rotterdam which came on stream in 1983; at that time a daring decision. Since the introduction developments went fast and the energy consumption reduced by over 25% due to continuous improvement in membrane and cell frame technology. Akzo Nobel followed these developments closely and our new Delfzijl chlorine plant uses state-of-the-art “zero gap” membrane cell technology, the first of its kind in Europe.

Notes:

- The Chlor Alkali sector is the largest user of electricity in the chemical industry
- Electricity cannot be substituted and represents as much as 50–70% of the variable costs of chlorine production, depending on electricity price and used technology
- In 2005, mercury accounted for 48% of European capacity, membrane 31%, diaphragm 18% and others 3%

Sustainable energy generation using a hydrogen fuel cell (page 18)

Pure hydrogen, a valuable chemical used as clean fuel in power generation and as raw material in other processes, is a by-product of our chlor-alkali and sodium chlorate production. When these options are not available, the hydrogen is vented into the air. Chlor-alkali and sodium chlorate electrolysis require a large quantity of electrical energy. So any developments that help reduce electricity intake from the grid will contribute to making the industry more sustainable.

Fuel cells can reduce energy consumption. A 20% reduction in the energy intake from the grid can be achieved by using PEM (proton exchange membrane) fuel cells in a chlor-alkali plant. In cooperation with Nedstack, a Dutch company and spin-off of Akzo Nobel, fuel cells are being developed for stationary applications. Fuel cell development requires a reliable supply

of pure hydrogen in terms of both quality and quantity, and our electrolysis processes can provide this.

Application of a PEM (proton exchange membrane) fuel cell stack along with an electrolysis process is an excellent option as very pure hydrogen is available and the energy can be used for the electrolysis process. In a sense, re-generating energy using a by-product of the energy-consuming electrolysis closes the loop.

In this project, a 5-MW fuel cell power unit is being designed, based on the intake of clean hydrogen directly from chlorine electrolysis.

In Delfzijl, at our new membrane electrolysis plant, a pilot of 50 kilowatts will be tested for a six-month period. The efficiency of the PEM fuel cell is approximately 50%. The pilot could in a potential next phase be scaled up to a megawatt unit.

The economics of a fuel cell power unit depend heavily on the possibilities for using or venting the hydrogen. What is more, the price of fuel cells is falling fast, while energy prices are going up rapidly. If the hydrogen can be obtained “for free”, fuel cells are expected to become economically attractive very soon.

Transport safety: a social issue (page 18)

Quelling social concern in the Netherlands about chlorine transport and setting a standard for safety of chlorine transport outside the Netherlands.

The long-standing chlorine transportation by rail in the Netherlands used to pass 2 million to 3 million inhabitants in densely populated parts of the country. The trains passed near the centers of major cities such as Rotterdam, Amersfoort and Hengelo. Over the years, citizens and the authorities have regularly expressed concern over the external safety risks related to the transportation of chlorine. Akzo Nobel used risk-based arguments and open discussions to try to show that the relative risks of this transport were lower than perceived. In fact, the risks are extremely small and well within

Additional information

the Dutch standards for external safety due to the unique safety measures covering chlorine transportation in the Netherlands and the safely designed rail tank cars. However, this did not quell the concern.

No rational argument can reduce fears of the consequences of a major chlorine rail tanker accident on a densely populated area along the transport route.

A covenant was therefore made with the Dutch authorities to stop chlorine transportation in the Netherlands. It was not without cost. The business case for Akzo Nobel has become less flexible because production and demand had to be matched more closely on two key sites. That involved expanding the Rotterdam plant, relocating the MCA plant in Hengelo to Delfzijl and closing the chlorine production plant in Hengelo. It required the construction of a chlorine plant in Delfzijl to match future demand. Making this possible involved a subsidy from the Dutch authorities and a large investment by Akzo Nobel.

But that is not the end of the story. In coming years, Akzo Nobel will continue to transport chlorine by rail from its locations in Germany and Sweden to local customers as well as to customers abroad (in Denmark, Austria, Switzerland, France, Belgium) in order to serve non-pipeline connected customers.

In 2004, Akzo Nobel still had 190 rail tank cars (RTCs) in operation, which all conform to the highest safety standards required. The future number of RTCs needed fell to 70 by the end of 2006. Meanwhile, to further reduce risks and ensure safe chlorine transports by rail, all old RTC types will be retired and 70 new RTCs will be constructed. The new RTCs are constructed according to the latest RID (2007) legislation and on top of that additional technical safety improvements are added to achieve the highest passive safety standard within reasonable boundaries for chlorine transports of Akzo Nobel outside the Netherlands. VTG, as the lesser of these RTCs, has developed, in close cooperation with Akzo Nobel, so-called "crash protected rail tank cars" (CPRs), of which

Akzo Nobel currently has 60 in service. Extra safety features include a special reinforced underframe, automatic load sensitive brakes, an additional buffer override protector, energy absorbing buffers of 1 MJ each, and additional crane hooks to ease rescue operations when needed.

By introducing this newly developed CPR-type rail tanker, Akzo Nobel has initiated a standard for safe chlorine transport by rail that is unprecedented in RTC safety history and higher than any pre-existing national standards.

Logistical excellence – greener road transport (page 18)

Base Chemicals started a program in February 2005 to achieve logistical excellence. A first phase quick scan indicated cost reduction opportunities were large enough to warrant further investigation. Of these, full load deliveries and optimal supply locations were selected for first detailed bottom-up assessment and implementation.

The bottom-up phase identified a savings potential of several millions of euros and an improvement on fuel consumption and CO₂ emissions. These were to be realized by increasing the proportion of full load deliveries to customers (both by truck and rail) and by reducing the number of deliveries from sub-optimal supply locations (taking into account the closure of Bohus and Hengelo plants). The first change results in fewer transports per product quantity, and hence a lower transport cost per unit. The second means fewer kilometers per transport, further reducing transport cost per unit. Two improvement projects were developed to realize these objectives and are now being implemented.

The total volume of our products transported is approximately 4.7 million tons a year, of which roughly 1.7 million tons is transported by road, 0.5 million by barge, 0.4 million by sea, 0.3 million by train and the rest by pipeline. The study focused on train and road transport. For the road transport, changing to full load deliveries and optimizing the sourcing

location could reduce distance by as much as 6%. CO₂ emissions would be cut by around 700 tons a year. The study's recommendations are being implemented and the full effects will be visible in the course of 2007.

Behavior-Based Safety: "I could have saved a life that day..." (page 18)

Just as this poem suggests, we all face situations in day-to-day life in which we see and realize something is unsafe. Those who really care give a warning instead of looking away. The Base Chemicals business unit has begun a program to teach its organization to take adequate action and address lack of safety before accidents happen.

The poem continues: "...but I chose to look the other way". Taking technical and organizational measures has been the backbone of industrial safety management for decades. Safer installations and handbooks, filled with extremely important procedures, are produced at great cost. Yet accidents and incidents still happen. They have decreased in number but are still too numerous to match our 'zero accident vision'. Something extra had to be done. The heart and mind of all employees had to be reached to take safety culture to a higher level.

Base Chemicals introduced a program called 'Behavior-Based Safety.' In cooperation with an external, specialized supplier, all business unit employees will be trained to see and notice unsafe situations or behavior and to address them with an open mind. That may sound easy, but many people feel uncomfortable finding an appropriate way to tell others they are acting dangerously or working in a dangerous situation. The conclusions of observation tours are analyzed and corrective action is taken. The sequence is plan-do-check-act; it starts with awareness and the confidence to address safety failings.

The program, to run in the Base Chemicals organization from 2006 through 2008, is being anchored in day-to-day activities at both managerial and work floor level. Only with perseverance and management attention can safety culture be elevated.

In this way, Base Chemicals is doing all it can to enshrine a sustainable health and safety performance.

This approach, which has the strong commitment of stakeholders throughout the business unit, is aligned with the last lines of the poem quoted above:

“If you see a risk and walk away,
Then hope you never have to say,
I could have saved a life that day,
But I chose to look the other way ...”

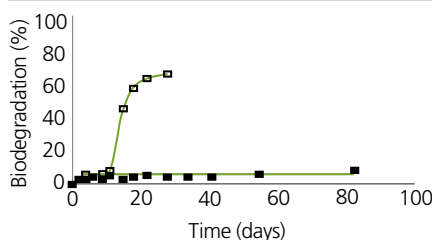
Akzo Nobel introduces a new biodegradable chelating agent (page 19)

Recent restrictions in the labeling of some chemical products have re-focused the need for alternatives to the classical and cost-effective chelating agents such as NTA (Nitrilo Tri Acetic acid) and EDTA (Ethylene Diamine Tetra Acetic acid).

A number of Chelates manufacturers have been working for many years on developing new chelating agents with a better ecological and toxicological profile. These developments are driven by consumer and I&I formulation developers looking for an even more “green” profile to their product portfolio. EDTA is not persistent in the environment (readily biodegradable in industrial wastewater treatment plants) with a well tested and documented toxicological profile. As a result, the risks to man and his environment are identified and are being easily managed.

Akzo Nobel is a market leader in chelating agents. As part of an ongoing program for new products, Akzo Nobel has introduced Dissolvine® GL (L- **GLDA** – **GL**utamic acid – **N,N-DiA**cetic acid). GLDA is a direct alternative to NTA and EDTA with a sound eco-toxicological profile.

GLDA is classified as readily biodegradable (> 60% degraded within 28 days) according to the internationally recognized OECD 301C test protocol.



Biodegradation of L-GLDA (□) and D-GLDA (■) in Closed Bottle tests inoculated with activated sludge

One of the reasons for this property is that it is based on a naturally occurring amino acid building block, LGlutamic acid. This food approved and generally regarded as safe (US EPA GRAS) food additive is used in many foodstuffs to improve flavor properties.

GLDA has been refined and improved based on experience gained from other classical chelating agent products to yield a product with excellent sequestering power and solubility.

In trials, GLDA has proved to have an optimal balance between biodegradability, metal chelation and ease of use. Unusual but interesting physical properties include high water solubility over a wide pH range. This is significant for cleaning products (such as cleaning in place) that are formulated at low pH.

EDTA and NTA are known to be thermally stable (> 150 °C). GLDA is surprisingly much more stable, tested with temperatures > 300 °C without significant decomposition. This property has been used to develop water treatment systems for operating boilers to reduce the effect of hard water metals and other metals released into the water due to operating conditions e.g. iron.

Applications could include strong alkaline hard surface cleaning agents, used in food processing and kitchen cleaning, automatic dishwashing and industrial cleaning formulations applied in dairy factory cleaning formulations.

There is a greater interest in the use of disinfectants in formulations. GLDA can be used together with biocides to improve, like EDTA, the biocidal performance of a disinfection system.

GLDA is not a biocide but is believed to chelate calcium in the bacteria cell walls whereby the bacteria is more sensitive to the active biocides. The use of a biodegradable chelating agent in such a system is novel.

GLDA is used in personal care and cosmetic products. The product is listed under INCI as glutamic acid diacetate. GLDA is free from genetically modified raw materials and is not irritating to skin or eyes, properties which are attractive in the development of new products.

Replacing the classical chelating agents, NTA and EDTA, is a difficult task for the formulator. However, GLDA is proven to be an effective alternative to these products in commercial applications and it distinguishes itself from other alternatives in its natural amino acid product basis, its strong chelating power and its unusual physical chemical properties. In conclusion, GLDA enables the formulator to develop products that are cost effective with a brighter environmentally friendly future.

Ferrazone (page 19)

Developed by our Functional Chemicals business, Ferrazone is added to food or beverages to tackle the chronic problem of iron deficiency. One of the most common nutritional disorders in the world, this deficiency affects 3.5 billion people in the developing world, undermines the health of 500 million women of reproductive age, and leads to more than 60,000 childbirth deaths a year. Ten grams per person per year is enough to fight iron deficiency effectively. In 2006, a quantity of ferrazone sufficient to alleviate iron deficiency in 25 million people was sold for food fortification purposes. Since FDA acceptance is an important acknowledgement of a thorough safety review and is recognized by food companies and many national governments, it paves the way for a further rollout of this business.

Additional information

Surfactants

10 year anniversary of Behavior-Based Safety at LeMoyne (page 20)

On Oct. 10, 2006, the Sulfur Derivatives LeMoyne site in Axis, Alabama, has reached a significant milestone, marking the site's tenth year since beginning Behavioral-Based Safety. The site has had a decade of experience using the process and more importantly 10 years of positive benefits through protecting the health and safety of site employees.

Before starting Behavior-Based Safety in 1996, the LeMoyne site had, at best, an average safety record. The Total Recordable (TR) frequency rate averaged 15 to 20 each year and there were about 30 safety-related incidents reported annually. Worst of all was the site's LTI record. The LeMoyne site had averaged about 600,000 safe work hours between lost time incidents and the site had achieved the 1 million safe work hour milestone only once in its history, in 1984. Safety performance had reached a plateau and a significant positive step change was desired.

The change process actually started early in 1996, when a committee of hourly and salaried workers was given the task to "find the best safety program for LeMoyne". After reviewing the various safety systems available the committee recommended Behavior-Based Safety by Behavioral Science Technology, Inc. The site management team accepted the recommendation and approved funding to be one of the first sites to implement their behavior-based safety process. A steering team of hourly employees worked for several weeks during the early summer constructing and then customizing this behavior-based safety model to match the specific culture and needs at LeMoyne. Intensive training for site employees started in July and on October 10, 1996 a formal celebration launched the initiative.

One of the first steps in adopting the behavioral-based safety system was to choose a name for the process, something unique to the site; a "brand name" that all employees can identify with their site's behavioral-safety system. At LeMoyne, an operator suggested ATOM, an acronym for

Awareness Through Observation Management, to be used as the process name and logo, which is appropriate for a chemical manufacturing facility. Behavioral safety at LeMoyne was officially christened. After 10 years, this logo is a common sight at LeMoyne and is instantly recognized as meaning safety to site employees.

Behavior-Based Safety is a process, not a program. It requires continual change and adjustments to stay in line with the organization's vision of safety. It is not intended to replace any of the essential and proven safety systems that are used in chemical manufacturing facilities. The key enhancement that Behavior-Based Safety provides is in the tools and techniques that capture employee awareness and promote active involvement in safety by all employees. In the Behavior-Based Safety observation process, employees collect data on their peers that are leading indicators, identifying those actions that place employees "at risk" of injury before an actual injury occurs. Instant feedback is given to the observed employee regarding any observed "at risk" actions and behaviors. At the same time, feedback is also given to reinforce the many safe actions and good systems so that positive awareness of the safe behaviors is reinforced. They also identify barriers that cause "at risk" situations, those pieces of equipment and systems that can injure someone or prevent employees from working safely. The data collected is extremely useful in identifying trends and behaviors that may need additional focus or change plus establishing targets for accident prevention. The high degree of employee involvement in Behavior-Based Safety drives the process and is the key to its success. Over time, focus in the entire workforce is shifted from reacting to accidents after they occur to identifying and preventing them before they occur.

Ten years of involvement in behavior-based safety at LeMoyne provides a long-term view of the results that can be achieved with this process. At this 10 year mark, the positive results of implementing behavioral-based safety can be seen in every safety statistic at LeMoyne.

The TR rate now averages 5, a 70% reduction since 1996. It has been 19 months since the last reportable injury at the site, the longest period in the site's history. There are now about 15 safety incident reports each year including near misses, a 50% reduction since starting behavioral-based safety. And most important, it has been almost nine years and over 2.4 million safe work hours since the site had its last lost time injury. For Sulfur Derivatives at LeMoyne it has been nearly 12 years since the last LTI. This is the Number 1 position in Akzo Nobel Chemicals in the Americas, a statistic that is the long-term result of the safety efforts by all LeMoyne employees, who would also agree this level of performance could not have been possible without behavioral-based safety.

"White" biotechnology (page 21)

Possible advantages of biotechnological processes include milder reaction conditions and therefore less energy consumption and the opportunity to minimize byproducts and waste. Industrial "white" biotechnology is nothing new. Europe has a strong industrial base in biotechnology, including large enzyme producers and companies developing and employing biocatalytic processes. In the U.S., industrial biotechnology has an agro-based and energy-focused approach and is coordinated through different government agencies.

Within Europe, our company is involved in several research networks involving participants from both academia and industry, such as the Swedish research program GreenChem, which focuses on developing and applying clean processes based on biocatalysis to manufacture chemical products from renewable raw materials. Our Industrial Coatings and Surfactants businesses are represented in this program.

The mission of GreenChem is to give the community visible examples of how biotechnology can be used to improve the environment and foster sustainability in the production of chemicals. A range of industries is represented in this program. These industries represent raw material suppliers as well as producers and users of

chemicals. The industries contribute by helping to identify products, processes and applications for which the environmental effect is critical. The program also involves evaluation of the environmental impact of the products from a life-cycle perspective. Target products for this program include alkyl glucosides and enzymatic processes for alkanol amides, which are of interest for our Surfactants business. We contribute to this program by providing raw materials, equipment for synthesis, basic characterization of substances, evaluation of new substances, support in life cycle assessment and so on. In 2006, we joined forces with GreenChem to develop an enzymatic process for alkanol amides and the results will be published in academic journals. The possibilities for scale-up are being studied together with our Akzo Nobel Chemicals Biotechnology Research Group.

The latter group also participates in an EU White Biotechnology program called B-Basic. The group is screening the feasibility of biotechnological processes for several of Akzo Nobel's Chemicals businesses.

Focus on customer satisfaction (page 21)

In 2003, Decorative Coatings International launched a continuous improvement program for its operations in Europe under the name "Star Trek". The focus areas were customer service levels, quality, costs, HSE and stocks. The program has brought a cultural change: employees now have their mindsets focused primarily on customer satisfaction. Projects are executed to improve delivery reliability and to reduce technical complaints. Starting from a level of 90-95% in the year 2003, Deco International achieved the targeted 98% service level in most countries in 2006. Waste reduction is an ongoing improvement area. Initiatives include dividing waste into different categories and seeking better disposal methods. As "Star Trek" gains momentum, employees are becoming increasingly eager to achieve even better results. To support this cultural change, we launched the "Star Trek Academy" in 2006 to train and encourage employees.

In our Surfactants business, we integrate into our customers' business processes by having contact with them at multiple levels and functions. We work with them to improve their product and service offerings to their customers by providing them with value added ingredients and by helping them in handling our products in a safe and environmentally sound way. As part of our customer contacts we produce monthly electronic news updates.

Customers can contact our sales and marketing centers during the daytime in all regions. An emergency center for customer questions and/or complaints is available 24/7. All required data for the "order to cash" process are available in our SAP enterprise system. Customer meetings regarding marketing, technical service and sales personnel are recorded in an online contact report database.

A database system captures complaints and "Opportunities for Improvement" (OFI) from our customers and employees. All responsible personnel in our organization have access to the system and statistics are developed and analyzed. The database has a built-in workflow that enables responsible persons to respond back to the customer in a timely manner. The database is checked regularly and responses discussed at multiple levels in our organization. The available information is also reviewed in the SBU organizations in the quality forum. Additionally our customers can e-mail comments and complaints to us via our internet website.

For the abovementioned customer approach we received Monsanto's Supplier Quality Recognition Award in 2006 for a sixth consecutive year.

VOC emission (page 21)

Quaternary ammonium salts are the core product of our surfactants plant in Itupeva, Brazil. Annual VOC emission was reduced from 400 to 55 tons.

Raw material methyl chloride and reaction solvent ethanol were emitted in significant quantities to the air. After initially investing an alcohol recovery system emissions halved to a level of about 400 tons VOC annually from about 800 tons VOC. In 2005 we decided to install a cryogenic condenser to cut drastically methyl chloride-related VOC emissions and the unit began to use it in mid-2006.

Annual VOC emission is expected to be reduced to 55 tons, a significant contribution to achieving the VOC emission reduction target of Akzo Nobel as a whole.

Triple value by vapor collection in Saskatoon (page 21)

Our Saskatoon (Canada) Surfactants plant received several odor complaints over the past years so investing in a vapor-condensing system in 2006 was approved.

The vapor discharges from several process sources will be routed to a condenser, steam vapor will in turn be condensed and sent to the effluent. The non-condensable gases will be sent to our incinerator. By installing the vapor-collection system odor complaints will be eliminated; by using the non-condensable gases as a primary fuel we will save on our natural gas bill and the emission of organic vapors into the air is prevented (the project is more or less climate neutral).

Additional information

Polymer Chemicals

Innovation examples from Polymer Chemicals (page 22)

Together with a number of customers we are involved in the development of continuous dosing of initiators (CID) to produce PVC that allows a higher throughput and less energy consumption;

We have developed Trigonox 311 that allows for stronger/safer unsaturated polyester curing for underwater/ underground pipes;

Within the framework of our so-called Fuzebox venture we have developed patented technology to coat metal fittings with aluminum using a much more environmentally friendly procedure than traditional means;

We are investigating the possible use of our peroxide and free radical technology to develop a more efficient, cost effective and environmentally friendly way to clean the exterior of buildings from organic-based soils and contaminants. This is expected to dramatically decrease the environmental impact of the building cleaning process thus eliminating many very aggressive and sometimes toxic products from this market;

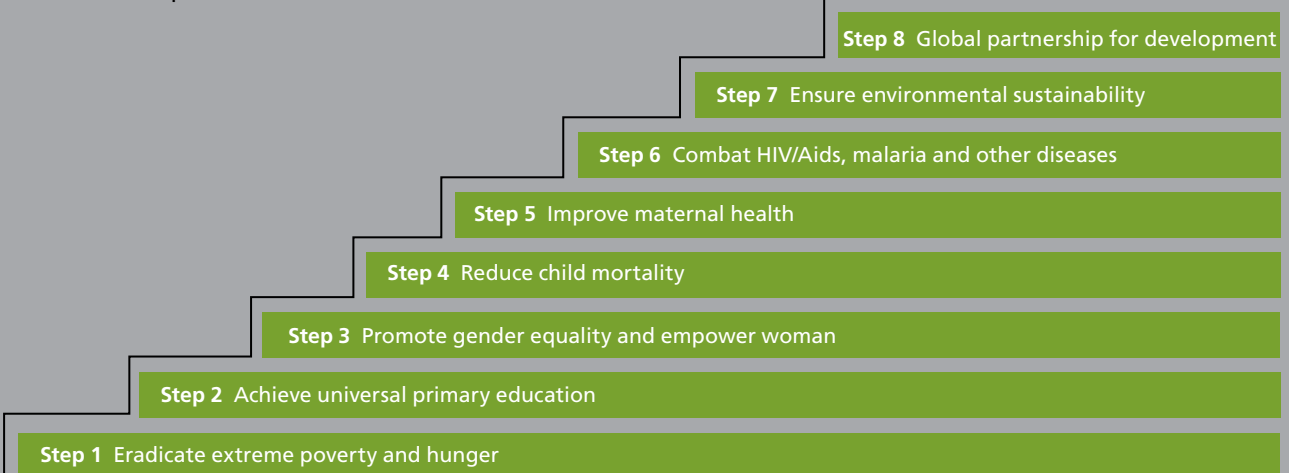
We are investigating the use of organic peroxides to modify and improve the properties of several biopolymers (polylactic acid and polyhydroxy alkonates) which are beginning to compete with the more traditional petro-based polymers. By improving the properties of the biopolymers with organic peroxides it will be easier to substitute these products into more applications traditionally serviced by petro-based polymers, including food packaging, films and even automobile parts. The use of biopolymers can significantly decrease the overall carbon loading on the environment associated with polymers today, as most are produced from petroleum and other long-stored carbon sources. The BU is working with several customers to accomplish this goal as companies like Wal-Mart demand more environmentally sustainable packaging options from their suppliers;

Finally in another venture the BU is working with a global consortium to identify anti-malaria compounds based upon very simple peroxide technologies that could potentially offer low-cost, anti-malaria solutions to malaria-ravaged areas around the globe. This is a much longer-term opportunity, but clearly has some very interesting and exciting implications.

UN Millenium development goals

Akzo Nobel contribution to reaching the UN MDG

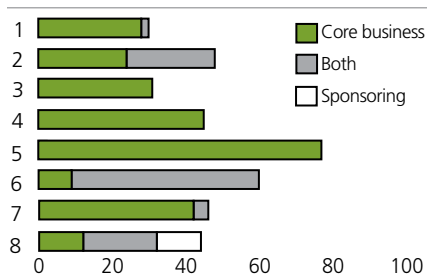
UN Global compact



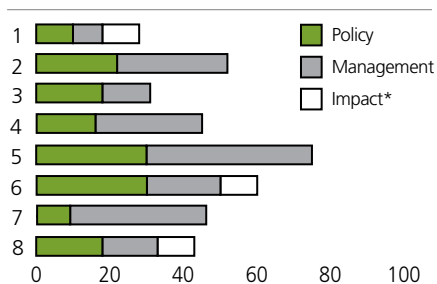
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UN Millennium Development Goals (page 26)

Contributions of Akzo Nobel to the MDGs



Contributions of Akzo Nobel to the MDGs



The Dutch Centre for Sustainable Development NCDO developed a draft framework to provide insights into how companies contribute to the Millennium

Development Goals (MDGs) of the United Nations. The framework can distinguish a company's efforts into policy, management and impact categories. It can also distinguish purely core business contributions from sponsoring and from those which are a mix of core business and sponsoring.

The MDG Framework contains a total of 77 indicators. The highest score for a company (100) can be achieved if a company has a maximum score on policy (15 indicators), management (30 indicators) and impact (32 indicators). The graphs on the right differentiate policy, management and impact.

Additionally the MDG framework also distinguishes contribution through core business activities from corporate sponsoring (philanthropy or community investment). 50 of the 77 indicators cover core activities only. One indicator covers sponsoring only. And 26 indicators cover both core business and sponsoring. The single sponsoring indicator is part of MDG 8.

A word of caution is needed when interpreting the impact data. The impact score is always understated. If a company graph shows no impact score for an MDG it either means that it has no impact or it has not been able to collect and present the required impact data or the data is not the format requested. Akzo Nobel knows it

has some impact on MDG 2, 3 and 4. And it has significant impact on MDGs 5 and 7 through its Organon and Coatings & Chemicals activities. However, the framework requires impact information in a form not available at corporate level, therefore the impact score is zero in the case of Akzo Nobel on MDGs 2,3,4,5 and 7.

Conclusions

1. A surprisingly large MDG contribution comes from core business activities, not from philanthropy
2. The graphs on policy, management and impact are especially useful for an MNCs future policy, information systems and reporting. Companies with scores that are heavily policy and management biased either need to improve their data collection methods for impact data, or they need to focus more on achieving real impact. Companies that only have impact and no policy or management scores, may see their impact on the MDGs evaporate in successive years. This could happen because those responsible for the impact are not backed by a corporate policy or resources available to manage MDG impact over a number of years. A burst of direct impact in one year, with no embedded policy or management systems, could be unsustainable in the future. It is

Additional information

important to have a balance of policy, management systems and impact

Sex education for young adults (page 26)

In China the abortion rate among young women increases every year, with research showing the rate among unmarried women soaring to 65% in 2005, from 25% in 1999. Such statistics highlight the need for more and better information on sexual education for young people.

Organon every year organizes a series of sexual education programs called "Rose Blossoming," aimed at helping young adults, particularly women who are referred to "beautiful roses," to grow up healthily, or blossom well.

The program's objective is to improve their knowledge of contraception, sexually transmitted diseases and the importance of responsible sex.

The "Rose Blossoming" education program has four major components:

1. Sex-education booklets (page 26)

Throughout the year 650,000 copies of information booklets on sex education and contraception were distributed to young adults, offering them quality and useful information for responsible sexual behavior.

2. Education at universities and in factories

- Collaboration with the All Women Association on campus We will co-operate with the All Women Association on college students' sexual education from October 2006, with 350,000 copies of information booklets being distributed and 100 lectures being given to college students in Beijing, Guangzhou, Wuhan, Zhengzhou and Xi'an. This collaboration will enhance Organon's reputation as a social partner caring for the health and well-being China's youth
- Education in campus and factories From January through September 2005, over 100 lectures were organized at universities and in factories. In 2006 more than 200 lectures will be held

and more than 30,000 youngsters will be involved

3. Internet education

We set up the first expert sexual-education website in China:

www.dryan.com.cn

We estimate that over 500 emails are answered on a monthly basis and aim to continue our efforts so as to help more youngsters have access to professional information on such matters.

4. Helpline

The helpline is opened 14 hours a day and provides information on sexuality and advice on contraception and how to deal with unplanned pregnancy. We assist 300 to 400 young people every day. Organon, through this program, aims to help youngsters' awareness and education about sexual matters in its efforts to contribute toward lowering the abortion rate.

Radio education program on reproductive health and family planning

The Philippines, with an annual 2.3% increase, has the highest population growth in Asia. This means that four babies are born every minute. Also, though, even though it is illegal, a baby is aborted every four minutes.

Dr. Sylvia Santos, medical advisor of Organon Philippines, and Emy Flores, product manager for Marvelon and Exluton, joined forces with a popular radio station, with five million listeners, to set up a 13-week educational program. The twice-weekly programs covered topics such as contraception, myths and misconceptions, safe motherhood, prevention of STDs and Aids, the role of midwives, sexual education and counseling, and sexual health.

Listeners were encouraged to register as 'students' and to take a test at the end of the program. After the first 13 issues more than 500 listeners enrolled. To qualify for an award as outstanding student, the participants had to conduct their own educational activities on family planning in their communities – based on the contents

of the radio program. Of the 100 who competed for the award, 10 were selected as outstanding students and received a livelihood package of their choice, for example products for a small grocery store, sewing machines, even piglets and animal feed or beauty parlor equipment.

Midwives' organizations supported the program and encouraged members of their communities to participate. Approximately 300 participants attended the award ceremonies, which also offered introductory flower arranging and reflexology courses.

The second 13-week program ends in November 2006. The radio time and the cost for the graduation ceremonies and the prizes were covered by a grant from Akzo Nobel's community program.

Organon completes awareness program in India (page 26)

Organon India announced in 2005 a post-graduate college program, called "Let's Talk," aimed at improving awareness in the country's contraceptive market. The program was completed by the end of 2006 and covered the targeted 21,000 students.

"The purpose of this program was to educate young women on the prudent use of contraception," explained Marie-Helene Piederiet, Organon India's head of marketing. "Organon, along with FOGSI, has encouraged these women, who are on the verge of completing their professional education and entering marital life, to prepare for the decision to plan their parenthood."

Organon has also operated a toll-free contraception helpline to provide women with accurate and unbiased information on contraception and reproductive health.

India's "Let's Talk" educational program on women's health and contraception is being run for postgraduate students in colleges across India. The program has been set up in close co-operation with FOGSI (Federation of Obstetricians and Gynecologists Societies in India).

Rabies vaccine: extra safety required (page 28)

In India approximately 7 million people need to be treated annually after a dog bite. "Mass oral vaccination of stray dogs," says Intervet employee Nico Visser, "is the obvious answer here as well." In the past any attempts to kill packs of dogs was met with resistance from religious quarters; the dogs were quickly replaced by others anyway.

"Some authorities are in favor of preventive vaccination in children," he continues, "but then they can still be bitten by rabid animals and mutilated as a result. In India there is a close association between humans and dogs, and people may be directly exposed to the baits containing the live oral vaccine during vaccination programs. So authorities need to meet extra safety requirements."

Intervet, using recombinant-DNA technology, has developed a vaccine that offers three levels of improved safety, relating to the virus's entry into the nerves at the place of a bite, its transport along the nerves to the brain and the exposure to the immune system. Teshome Mebatsion, Research Manager/Molecular Biologist currently at Intervet Inc., in the US received for this work the prestigious Pettenkofer Prize "For outstanding research with practical application in prevention and therapy of infectious diseases." As the dog population will probably grow when rabies will no longer be a threat, another addition is being made to the vaccine strain assuring that the female animal who consumes it has fewer or no offspring. "In India dogs are now caught and sterilized by volunteers," says Visser, "but this is an endless job, requiring a tremendous effort as the animals also need to be nursed for a period of time. So this two-in-one solution will bring great advantages."

Government vets

Nearly every town or village in India has a government veterinarian, and it is they who will be in charge of the vaccination programs. The dogs usually show up in town toward the end of the day and the bait can be thrown to them. This must be done by hand to avoid the pack leader eating everything which would leave the others unprotected. Uneaten bait can be gathered up later and disposed of; if a few dogs will not take it that poses no problem as a herd immunity percentage of 70 will be sufficient. "We expect it to be up to 100%, though", Visser says. The programs need to be repeated periodically, probably with one-year intervals. Visser has a plastic bag with some bait at hand but he is loathe to open it, saying it resembles feces and the smell is "pretty foul."

Local facilities

Sreenivas Kilari, heading the oral rabies project at Intervet's R&D facility in India, has developed this presentation and the bait will be produced locally as well. This is a government requirement but also very cost effective: a single bait produced locally costs no more than a few eurocents, whereas elsewhere this amount may easily run up to 10 times more. Intervet India is ready for the field trials but government approval has been postponed as concern about avian flu occupies all national high-containment facilities. Intervet recently completed its own facility and will carry out the trials from there. Visser is convinced the oral vaccine will be a great success. "If we get the chance to show how it works," he says, "people will be clamoring for this product at our gates. Intervet intends to market this product more in terms of our social commitment than as a big money-maker. The effect will be astonishing."

www.rabies-vaccination.com

SAHAYOG – trust meets technology in Indian NGO partnership (page 28)

To cooperate with a NGO to enter new markets, can this be a CSR project? Certainly yes!

"SAHAYOG "a Sanskrit word means "Partnering for a good cause" is the name given to an agreement between BAIF an NGO of high respect and Intervet India. BAIF enjoys the farmers trust whereas Intervet stands for quality and technology.

BAIF is running in the remote areas through so called Cattle breeding centers (CBC's) which provide the farmers healthcare and insemination services. Until today they do not have access to quality medicines and vaccines. Moreover the CBC's are not self sustainable and BAIF is chronically short of funds.

BAIF will take over the representation and distribution of our products in these areas. The CBC's will in future sell these products. The commission on the sales will allow BAIF to invest in rural development projects and the CBC's will become self sustainable.

The small farmers will get access to quality products which will enhance the health standard of their animals. This will result in higher yield which means higher profit. Consequently their standard of life will improve.

Intervet India will get access to a market of 3 million cattle and indirectly to a field force of 1,500 heads. Moreover our brand will be spread all over India.

This win-win-win situation is a nice sample that CSR and business must not be contradictory.

Additional information

Forging the link: recognizing the link between human and animal abuse (page 28)

Evidence of the link between the abuse of animals and humans has been growing for some years and is most commonly seen in cases of domestic violence and child abuse. It has been suggested that evidence of abuse to the family pet might be a useful pointer to early indication of abuse to other members of the family, such as the children. Veterinary surgeons therefore have a vital role in recognizing and acting on suspected cases of so-called non-accidental injury (NAI) in animals which can potentially break the cycle of abuse, both animal and human.

For the past five years, Intervet UK, through the Forging the Link campaign, has been an instrumental voice within the animal and human health industries bringing this difficult and often ignored subject to the fore and encouraging some of the country's leading authorities in the fields of child abuse, animal abuse and domestic violence to work together. This inter-agency communication and co-operation between the professionals involved in such cases is one of the single most important factors in combating the links between domestic violence, cruelty to children and animal abuse.

As a direct result of Intervet's lobbying The Royal College of Veterinary Surgeons, the governing body of the UK veterinary profession, changed its Guide to Professional Conduct which now contains a section on 'Animal abuse, child abuse and domestic violence' www.rcvs.org.uk. To our knowledge, this is a global first in veterinary medicine. Prior to this, veterinary surgeons were bound by rules of confidentiality and felt helpless when faced with a case of animal abuse.

Intervet UK has provided financial support along with personnel actively working in the campaign without which this issue would not have the profile it has today. We continue to have ongoing commitment to Forging the Link.

Developing eco-efficient and sustainable solutions

Wood Chips Mariager (DK): Worth its salt (page 31)

Most of us take salt for granted, but what a lot of people might not realize is that it's far more versatile than being something you sprinkle on your egg in the morning or use to help keep roads frost-free in the winter. Salt plays an important role in several industries. It's used by the chemicals industry to make chlorine, the health sector uses a special pharmaceutical grade salt, and food manufacturers need large quantities of the mineral to make their products. Akzo Nobel is one of the world's leading salt producers and the company's plant in Denmark supplies all these markets. But salt production is an incredibly energy-intensive process and finding ways to lessen the environmental impact of production by using renewable resources – which is a major concern – have proved difficult. Until now.

A significant amount of energy is required to produce the steam needed to process the salt and, in a world of depleting fuels, the challenge facing the company at its Danish Mariager facility has been to do so more efficiently. But while the business is currently wholly dependent on gas, Akzo Nobel's salt business will soon also have the option of using a woodchip-fired boiler to produce the necessary steam.

Since 1999, the Mariager site has been using what's known as a cogeneration power plant, which means that as well as producing steam for the salt production process, the plant also generates electricity as a by-product. As plant manager Frank Hoks explains, the electricity generated by this cogeneration plant – which is called Maricogen – is sold to the public grid, offsetting the cost of the gas it burns. The site also has a gasfired boiler which is capable of producing steam for the salt producing process.

Maricogen's cost-effectiveness was adversely affected recently by a substantial hike in the price of gas which, in Denmark, is tied to the price of oil. The disadvantage of higher running costs was compounded by the fact that electricity prices in Denmark are not tied to the prices of oil and gas, but to those of coal and of hydroelectric power from Norway. The cost of using Maricogen meant it was no longer economically viable, because the increased gas costs were not compensated for by increased revenue from selling the electricity.

Leadership position

"The situation demonstrated to us that we needed more energy flexibility," says Hoks. "We must be able to react to trends and world energy prices and then choose the method of steam production from the means at our disposal." As a first step in realizing this flexibility, Akzo Nobel has put Maricogen on standby and installed a second, rented, gas-fired boiler.

Together with its existing gas-fired boiler, these two are now capable of producing the total steam requirements of the Mariager site. According to Hoks, using these two gas boilers has already resulted in substantial cost savings.

The next step will be the installation of a woodchip boiler, which will replace the rented gas-fired boiler and make Mariager less dependent on natural gas. Woodchips are a cheaper and more sustainable fuel. They come from forest management activities in Denmark and other Scandinavian countries, which means they are available in copious amounts.

Moreover, because the woodchips are produced through the positive process of forest maintenance, they are not won at the expense of the environment. Continues Hoks: "This is proven technology. Many installations like this are in operation in Scandinavia. For example, Denmark has many district heating systems for both bigger and smaller towns. Many of them run on biomass, such as woodchips."

Feeding system

The woodchip boiler at the Mariager site will produce approximately half of the

steam consumption per hour, for direct use in the salt plant. A fully automatic feeding system will convey a continuous supply of woodchips on a moving belt into the boiler. The chips will dry out, then be burned in the boiler's combustion chamber, releasing heat for steam production.

Not only will the woodchip boiler reduce the plant's energy bill, it will also make a modest contribution to the reduction of the greenhouse effect. The process of burning wood compared with burning gas is CO₂-neutral, which means that although it does release CO₂, the fuel (trees) also takes out CO₂ from the atmosphere through the photosynthesis process – whereas using gas only adds CO₂.

The installation of the woodchip boiler is started in the fall of 2006 and is expected to produce the first woodchip produced steam by mid-2007. After completion of the project, depending on gas and electricity prices, the Mariager plant will have two steam producing options: the boiler operation (half woodchip and half gas) or the Maricogen operation. In the coming months, the plant will also be looking at the possibilities of extending the salt production. It shows that the Mariager operations are ready for further growth.

"The woodchip boiler can be seen as a contribution we are making towards a more environmentally sustainable world," concludes Hoks. "For Akzo Nobel it means being able to strengthen our position as a producer of low-cost, high quality salt, and reduce our exposure and vulnerability to energy-price developments in future."

Operational excellence

Reduction of waste in BU Powder Coatings (page 35)

In 2001 "Non Re-useable Waste" tonnage from the BU Powder Coatings was nearly 6% of the volume produced. Concerted programs over the past 5 years, often within the framework of local ISO14001 certified EMS, has reduced that figure to 3% in 2005. Given that the bulk of the waste was being disposed of at additional cost, this reduction in waste represents a considerable saving to the BU.

Non Re-useable Waste (NRW) is an established Akzo Nobel CSR/HSE Key Performance Indicator. It is defined as "All waste as it leaves our premises in the reporting period which is not used for resource recovery, recycling, reclamation, direct re-use or alternative uses". In 2001 BU Powder Coatings reported NRW at 6440T, 5.5% of the production volume. Since 2001 the BU Powder Coatings has grown considerably, both organically and through acquisition. Nevertheless in 2005 the BU Powder Coatings' NRW was reduced to 5000T, or 3% of volume produced. Conservatively, that 1400T reduction in waste represents a value of around 2mEUR. For the first 6 months of 2006 the NRW stands at 2.5%.

Recognizing the potential business value, stretch targets were set to reduce NRW and a myriad of initiatives set up around the world.

BU policy is for sites to be certified for the Environmental Management System (EMS) standard ISO14001 and the majority of our sites are now certified. Sites were encouraged to include waste reduction programs within the framework of their EMS.

In order of desirability, there was a preferred hierarchy with regard to waste:

- Don't produce it!
- Reduction
- Re-use
- Recovery (recycle, energy recovery, composting)
- Disposal (Landfill or incineration without energy recovery)

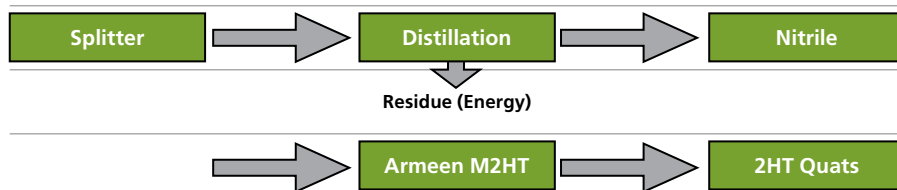
This hierarchy triggered several activities such as:

- Review with R&D of product (particle size distribution PSD) specifications. The bulk of waste is powder particles which are too fine – so we wanted to ensure we were not specifying PSD's which were overly stringent and encouraged unnecessary fines or rejects
- Engineering modifications to mills to ensure required PSDs are readily achieved with minimum losses at required throughputs
- Streaming of fines : for re-work back into the same product as a raw material for extrusion
- Bulk blending of fines: to produce a consistent raw material for regular use in appropriate products
- Alternative end use for fines (e.g. automotive cladding in Europe)
- Use as a fuel for cement production (and the ash becomes a subsequent raw material!)
- Incineration with energy recovery
- ...and possibly composting in the future (trials are promising)

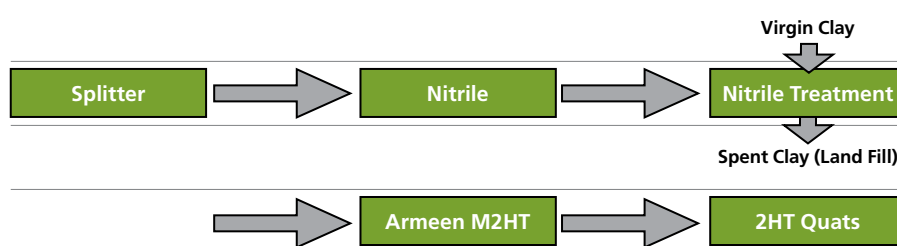
Akzo Nobel as a whole reported 109,000T in 2005, with BU Powder Coatings contributing 5000T. 5000T is higher than any other Coatings BU (total Coatings BU NRW was 21000T highlighting that BU Powder Coatings still has opportunity for further improvement!

Additional information

Distillation Process (Proposed)



Clay Treatment Process (Current)



Waste reduction in Morris (USA) (page 35)

Our surfactant plant in Morris (Illinois, USA) produces an intermediate for a household detergent, which demands high quality as far as odor and color are concerned. Waste was reduced significantly with 75%.

A purification process yields an exceptional quality product but unfortunately a significant amount of waste is formed.

The original amount of more than 5,000 tons of waste annually was reduced to less than 3,000 tons by offering customers a

slightly modified product with the same functionality. Several changes in production were also piloted and, once the changes were approved, we began to implement it in early 2006.

Once the process has been set up, the amount of waste generated will be reduced to about 1,250 tons annually, a 75% cut compared with the original amount and a significant contribution to achieving the overall waste reduction target of Akzo Nobel.

Waste management improvement at Felling, UK (page 35)

Prior to 2004 all solid wastes generated by the Marine and Protective Coatings (M&PC) Felling Site manufacturing facilities were classified as "special waste" under the precautionary principle and disposed to special waste landfill sites. While significant quantities of liquid wastes were already being reused or recycled there was little segregation and recycling of solid waste. Thirty seven percent of all waste generated was classified as non-reusable, the bulk being solid waste.

Felling site recognized that there were a number of significant socio-economic advantages and opportunities to reduce business risk if the quantity of non re-usable waste being generated could be reduced. Around the same time, Akzo Nobel Corporate Social Responsibility and other Corporate Directives were established that required key performance indicators be monitored, including the quantity of non-reusable waste generated from manufacturing sites and to highlight the corporate and social responsibilities of everyone working within the business. This coincided with a number of significant changes to legislation dictating how wastes could be managed in the UK.

The challenges presented by these requirements and legislative changes were recognized by the Felling site M&PC business:

- Reviewing waste generation from a socio-economic as well as statutory aspect
- Co-disposal of non-hazardous and hazardous waste was to be banned meaning the precautionary principle was no longer valid
- Liquid, flammable and corrosive wastes etc were to be banned from landfill
- The biodegradation of waste in landfill sites produces large quantities of methane. This gas is recognized as a material with a high global warming potential. Felling site recognizes that global warming is one of the top five global issues of concern in the UK
- Landfill sites can generate visual and odor related issues for those living nearby M&PC's reliance on these sites was contributing to these issues

- Significant quantities of material being disposed of as waste to landfill originated from non-sustainable natural resources and were not biodegradable
- The implementation of waste acceptance criteria (WAC) for hazardous wastes destined for landfill
- The number of landfill sites capable of accepting hazardous wastes would reduce from 200 to less than 10
- An increase in landfill disposal cost from £45/tonne in 2004 to a 2005 cost of £320/tonne
- A SHE improvement plan for 2005 was therefore established to reduce the quantity of solid special waste sent to landfill by 50% based on a 2004 base line

Project preparation and planning

During 2004 and 2005 there was a rolling SHE improvement plan dealing with Waste Management. The objective was to reduce solid special hazardous waste to landfill by 50%. The key activities associated with the charter were:

Establishment of a team – the decision was made in 2003 to create a new position of Environment Manager for M&PC Supply at Felling. Part of this new role was the handling of waste management issues & reviewing Felling sites environmental aspects in terms of its environmental and social impact. A new position of Waste Management Operator was also created.

Understanding the legislation – key members of the team attended various training courses and seminars (including becoming members of the Chartered Institute of Waste Management) in order to understand the ramifications of the regulations.

The identification of waste streams capable of being recycled – working across all functions on site including Research & Development, Powder Coatings, Technical and Engineering functions as well as Operations, all site waste streams were reviewed. Those waste streams capable of being recycled were identified.

Identification of suitable waste service providers – it was recognized that a competent waste service provider was required to undertake the disposal and recycling of waste from site in order to minimize risk to the business.

Training & awareness – In light of the changes required (specifically increased waste sorting and segregation) two full days were allocated by site management to train operators and make them aware of the changes required. Weekend training was also provided for designated Polymer Plant personnel. A key part of the sessions was emphasizing the reduction in Felling's environmental 'footprint' and the benefits of this in a social responsibility context. Recycling in the home was also emphasized as a benefit to society as a whole.

Associated meetings – three specific meetings were set up to manage the activities. These monthly meetings continue and involve personnel from all functions.

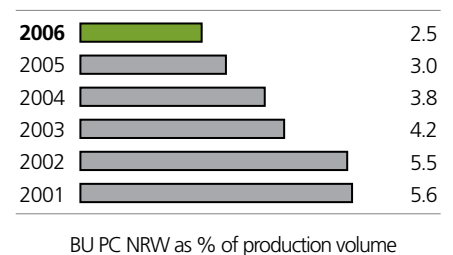
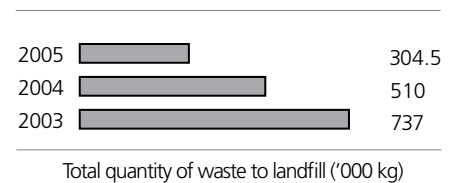
Social versus financial – Recycling is not always the correct financial option. All recycling activities were reviewed, looking at the financial impact the environmental benefit, and the companies Corporate Social Responsibility targets. Consequently, in some cases, there was an increased cost associated with the decision to recycle. Capital is being made available to install equipment to enable waste to be prepared in a manner acceptable to the paper mills, generating environmental benefits in terms of eliminating an intermediate operation, and financial benefits by selling direct to the end user.

Results

- Excellent commitment from operating teams to reduce the environmental impact of the site. Awareness that Akzo Nobel is as committed to reducing SHE impacts as they are in financial performance
- The total quantity of waste sent to landfill has reduced from 737 tonnes in 2003 to 305 tonnes in 2005
- 86% of all waste produced can now be either recycled or reused

- The quantity of non-reusable waste generated has fallen from 1200 tonnes in 2003 to 446 tonnes in 2005
- Despite a 700% increase in landfill disposal costs for hazardous waste, no additional Felling waste disposal costs have been incurred

Reduction in total waste sent to landfill from 2003 to 2005



QHSE management systems (page 36)

Integrated management systems
We have QHSE management systems in place to manage a continuous improvement of our operational standards and to meet stakeholder requirements. Stakeholders include customers, governments and industry associations. Our local organizations have a multitude of certificates of quality (ISO-9000), environment (ISO-14001), safety and health (OHSAS-18001), Responsible Care (RC-14001), food safety (HACCP), good manufacturing practices (GMP), good laboratory practices (GLP) and more. All our businesses have management systems in place to ensure adherence to corporate governance standards. The latest development is the introduction of a business-oriented generic strategic management framework. Not only production sites can use this framework. Marketing and sales organizations too can interface globally by using the most modern IT systems available. Implementing such a system on business scale enables a

Additional information

complete business to certify its activities worldwide against external standards.

Development of HSE accounting

HSE performance of all Akzo Nobel Sites is monitored centrally by making use of 14 Key Performance Indicators. All Key Performance Indicators and their underlying data have clear definitions and calculation methods. Data-gathering and consolidation is a fully controlled process that meets internal and external auditing criteria. In 2006, we introduced a new HSE web-based accounting system that extends to our sites where intranet connections are available. Reporting and consolidation rules and responsibilities are built into this system and satisfy external and internal audit requirements. Our regular corporate site HSE audits have been further expanded, with an in-depth onsite review of the process of establishing key performance data at site level. In this way, we can report on our HSE performance correctly and in a transparent and timely manner.

Product Stewardship Management Systems

All Akzo Nobel Businesses have comprehensive Product Stewardship Management Systems in place, which are extended and updated at regular intervals.

Health and Safety policy development

An Akzo Nobel minimum health management standard summary was issued in late 2005. Its content being based on relevant Akzo Nobel policies and corporate directives, it gives a concise overview of our daily occupational health practice. In 2006, the HSE audit protocol was adapted to explicitly audit this standard. Also last year, an inventory was made of remaining weaknesses in health management standards in order to harmonize specific health guidance throughout the company. Guidance will be risk-driven and will include an array of topics such as exposure to hazardous chemicals and contractor health and safety management. Our avian flu policy, drafted in late 2005, was implemented throughout Akzo Nobel in 2006. Where appropriate, we installed response teams and took precautions to enable us to cope in a situation of pandemic.

Report of the 2006 Corporate HSE Audits

44 sites were audited in 2006: 17 sites at Chemicals business units, 21 at Coatings business units and six at Healthcare. During the 2006 audits, the management of security risk and the quality of reporting the 14 corporate HSE parameters' performance were chosen as specific areas for attention. The aim of highlighting these areas was both to gather information for further policy-making.

Security: In 2006, security was fully incorporated into the Akzo Nobel's HSE and security policy and directive and in the HSE audits. In September 2006, the audit team began auditing performance data of the 14 corporate HSE parameters reported by the sites.

Talent recruitment and development

Privacy Code:

Protection of personal data (page 38)

Employees, suppliers, customers, clinical trial patients and anyone who provides us with their personal data should feel confident that the information they provide is treated with full confidentiality. To emphasize this, we are committed to implementing a global privacy code of conduct which guarantees a consistent level of personal data protection throughout the organization. This means for example that a job application will be processed with the same safeguards whether an individual applies for a job in the Netherlands or China.

Akzo Nobel is implementing its privacy code of conduct and in May 2006 the company received an approval of this document from the Dutch data protection authority, the CBP (College Bescherming Persoonsgegevens). The overall application is pending final approval by the CBP and other applicable European data protection authorities.

In March 2006 the company launched a global training program on data protection for staff members within human resources, marketing & sales and information

management. This classroom training will continue in parallel with a more general e-learning training. Also an audit plan for data protection is under development. Akzo Nobel must be fully compliant with the privacy code two years after the CBP's approval of the overall application.

Privacy code in brief

- Specifies the criteria that need to be fulfilled before gathering information about employees and customers, how it may be processed and who will have access to the data
- Guarantees consistency in the data-collection process
- Specifies when consent is required for the use of personal data
- Establishes policies for employees to access their files and to correct them
- Specifies the systems for the storage, removal, and updating of personal data
- Defines "sensitive data" and limits its collection and use
- Establishes policies to ensure security and confidentiality
- Limits disclosure to third parties
- Establishes policy for managing complaints on the use of personal data

Communications and stakeholder dialog

Safe and green car lease program (p41)

Akzo Nobel's 12,000 lease car drivers will be driving safer and "greener" in the future following a decision to launch a more progressive lease car scheme. As well as helping to improve safety for our employees, the new scheme will also result in fewer CO₂ emissions produced by our leased car fleet.

Lease car drivers around the globe will soon have access to a wide range of vehicles which have been carefully chosen to meet exacting standards when it comes to safety and environmental performance. Globally all new fleet vehicles will meet tough safety and environmental standards. At the same time, driver road safety training programs for the employees involved will also be offered to reduce the risk of accidents.

Global Car Lease Implementation Manager Peter den Besten added: "We want to ensure that our employees only drive company cars which comply with leading industry safety standards. The environmental criteria reflect our values with respect to protecting the environment. As an add on, the new scheme will help us to deliver substantial cost efficiencies thanks to lower fuel and insurance costs, and to anticipate future legislation and subsidy policies around the world."

He went on: "The scheme will be gradually introduced around the world. Employees will be informed on a country by country basis once the scheme is introduced. The overall benefits are clear. Our initial calculations show that driver safety programs can substantially reduce the risk of accidents, while our scheme may cut fuel consumption and CO₂ emissions by at least seven percent, and drive down insurance costs by 25 percent."

A wide range of cars will continue to be available. The labeling of a car model with a "green" (preferred) or "yellow" mark depends on the level of CO₂ emissions compared with other vehicles in the same category. The labeling supports everybody who is allowed to order a new lease car to choose a safe car, which produces fewer carbon dioxide emissions. As usual, the next higher manager has to approve his choice.

Under the new scheme, the less energy-efficient models will be gradually phased out as lease car drivers serve out their current lease contracts. Before the beginning of 2007, the car selector list in Europe will already include the green and yellow labels. The U.S. will follow soon. The most unsafe and environmentally-unfriendly cars in the various car segments will simply be no longer available.

CSR Award Best Business Unit: Surfactants (page 42)

The jury decided to assign the prize not for one entry but rather for the total CSR Profile of the BU as it is reflected by their various entries. Criteria: integrated, global approach; maturity; depth; continuous/sustainable improvement over time.

BU Surfactants has implemented a number of sustainability driven programs and processes. SBU Europe has made Product Stewardship and Responsible Care to a natural part of every employee's daily work by implementing one integrated QHSE/RC management system. Fine concept, excellent roll out to all disciplines and employees, supported by powerful and easily accessible web based IMS. The initiative has led to first external Responsible Care Verification within Akzo Nobel in May 2006. The Gate Model used to systematically assess the feasibility of R&D Projects was recently adapted to include HSE and regulatory affairs issues and its flexibility was improved to assure that even small projects can now receive a critical and objective review. During 2005 the Gate Model was rolled out globally. It is now a key element in creating a sustainable product portfolio for Surfactants. By reducing VOC emissions from its operations in Itupeva, Surfactants makes a major contribution to reducing VOC emissions by Akzo Nobel as a whole.

Finally, with a number of 12 CSR Award entries Surfactants proves that the CSR concept has been widely adopted all over the BU.



Best Team: Dissolvine goes Bollywood (page 42)

Employees of BU Functional Chemicals, SBU Chelates present the application of Dissolvine-iron chelates in an environmentally friendly bleaching process for the film industry. The conventional cyanide film bleaching process is toxic and one of its by-products, hexavalent chromium, is extremely harmful to marine life. By the perseverance of a few people, the new bleaching process is at this moment well accepted in the Indian Movie Industry (Bollywood) and first steps have been set to introduce the new bleaching process in Hollywood as well.

For the Team prize, the Jury was focused on creativity and perseverance, combined with a clear business perspective. The business scale was not used as a primary judgment criterion. The Jury chose Bollywood because it's an excellent example of improved eco-efficiency along the value chain (environment, occupational safety) based on one of our chemical products, creativity and perseverance in marketing of the process into a very conservative film industry, a certain maturity because of the firm foothold in Indian Film Industry and the challenge ahead to bring it to Hollywood.

Model of safe production enterprise in Ningbo, China (page 42)

Akzo Nobel acquired the Ningbo site in October 2002 as part of its purchase of Ferro Corporation's powder coatings businesses in Asia Pacific. Since then, the plant has gone from strength to strength and been recognized as a model enterprise, lighting the way for other local companies.

Akzo Nobel Chang Cheng Coatings (Ningbo) Co. Ltd plays an instrumental role in the local community. The company has received a series of awards from local authorities in recognition of their continuing contribution to society:

- Innovative Foundation Organization 2005
- Innovative Foreign Direct Investment 2005
- Safety Production Organization 2006
- Technical Re-Engineering Innovative Body 2006
- Top 10 Enterprise of Wuxiang town 2006

Additional information

- Member of the Ningbo City Coatings Association 2006

In April 2006, the company launched an education fund with a budget of RMB 1.5 million for Wuxiang Middle School, in the Yinzhou province of Ningbo city. Wuxiang is a rural town area where education is simply not an option. The five-year program is aimed at high-achieving young students from disadvantaged backgrounds and will give 100 students the opportunity to complete their education and secure a better future.

The Ningbo Management Team will hold seminars and workshops with the students to focus on the importance of the environment, innovation and education. This program will combine financial support provided by the business with the involvement of Ningbo site employees.

This initiative consolidates the company's long-term commitment to society and offers a number of associated benefits:

- Improved relationship with the local community, customers and local authorities
- Better education and recruitment prospects for the students, an increased ability to recruit and retain employees, team-building opportunities
- Enhanced employee pride and motivation leading to increased productivity

More information about award ceremony: <http://newsandviews.akzonobel.com/News/Ningbo+Enterprise.htm>

Innovation in vaccine production reduces animal testing (page 43)

Clostridial bacteria produce toxins that cause a range of diseases in animals. Vaccines against these diseases are often developed from the toxins themselves. The toxins can be chemically treated to destroy their toxic properties, producing a harmless form (a toxoid). When this toxoid is used in a vaccine, it can stimulate the production of antibodies that recognize and neutralize the original clostridial toxin. That protects the vaccinated animal from disease.

During the manufacture of the vaccines, the quantities of the toxins and toxoids must be measured as a regulatory requirement and to ensure the consistent quality of the vaccines. This currently involves the use of animals. However, there are in vitro approaches that could be exploited to measure these materials, thereby replacing the use of animals in toxin testing. The aim of this project is to develop in vitro tests to quantify the toxins and toxoids to replace the current in vivo tests.

The development of suitable in vitro assays could completely replace the use of animals in this type of testing. As a veterinary vaccine manufacturer, Intervet produces a wide range of clostridial toxins and toxoids. The in vivo tests are currently carried out as part of the normal vaccine manufacturing processes. This means that the necessary validations and correlations of the in vitro assays with in vivo tests can be done with minimal additional animal usage. Currently, to meet regulatory requirements, each batch of toxin and toxoid is subjected to testing. Replacing these tests with in vitro assays would significantly reduce animal usage in clostridial vaccine production not only Intervet but also by other vaccine manufacturers.

Corporate citizenship

Sex education for young adults (page 44)

In China the abortion rate among young women increases every year, with research showing the rate among unmarried women soaring to 65% in 2005, from 25% in 1999. Such statistics highlight the need for more and better information on sexual education for young people.

Organon every year organizes a series of sexual education programs called "Rose Blossoming," aimed at helping young adults, particularly women who are referred to "beautiful roses," to grow up healthily, or blossom well.

The program's objective is to improve their knowledge of contraception, sexually

transmitted diseases and the importance of responsible sex.

The "Rose Blossoming" education program has four major components:

1. Sex-education booklets

Throughout the year 650,000 copies of information booklets on sex education and contraception were distributed to young adults, offering them quality and useful information for responsible sexual behavior.

2. Education at universities and in factories

- Collaboration with the All Women Association on campus We will co-operate with the All Women Association on college students' sexual education from October 2006, with 350,000 copies of information booklets being distributed and 100 lectures being given to college students in Beijing, Guangzhou, Wuhan, Zhengzhou and Xi'an. This collaboration will enhance Organon's reputation as a social partner caring for the health and well-being China's youth
- Education in campus and factories From January through September 2005, over 100 lectures were organized at universities and in factories. In 2006 more than 200 lectures will be held and more than 30,000 youngsters will be involved

3. Internet education

We set up the first expert sexual-education website in China: www.dryan.com.cn

We estimate that over 500 emails are answered on a monthly basis and aim to continue our efforts so as to help more youngsters have access to professional information on such matters.

4. Helpline

The helpline is opened 14 hours a day and provides information on sexuality and advice on contraception and how to deal with unplanned pregnancy. We assist 300 to 400 young people every day. Organon, through this program, aims to help youngsters' awareness and education about sexual matters in its efforts to

contribute toward lowering the abortion rate.

Structural improvement of environmental conditions on Korea's West coast (page 44)

Each month 34 employees of Marine & Protective Coatings in Anyang team up in various areas on the Western coast of Korea (Taeon, Seogumu, Kunsan) to collect trash, install trash bins, distribute life vests with logos on environmental protection and set up sign boards. By conducting this campaign they want to reduce contamination from the sea which is quite severe and improve the local communities' environmental awareness.

The coastal areas that are chosen have many small fishing boats which are often crowded together and are located not too far from the company. The small docks or coastline have a length of less than two kilometers which can be covered by 10 people. Not only the employees help with this environmental awareness campaign but also paint agents from Marine & Protective Coatings as well as local village representatives have joined the cleanup program. At the start of the campaign in Seogumu, a small fishing village, more than 30 fifty-liter rubbish sacks were collected in about three hours which were taken away by a local garbage truck. And at the end of the day, as promised by Site Manager Mr. Cha, who actually joined the activities, the Seogumu coastline was indeed 'as clean as a whistle'.

Through these activities cleaner and better environmental conditions are a clear result, but also the fishing conditions for the local community are improved.

Kocaeli University in Turkey (page 44)

With this project we aimed to develop and plan common educational programs with Kocaeli University to meet the need for skilled and well-trained mid-level workers, especially in the paint sector. We also introduced our specialized and experienced employees to the University to help and support the students in their training programs just to enlarge the vision of them about the sector and to create mutual sense of trust. To plan internship for the

students for a better development and to recruit them after graduation is another part of this project.

Marshall has been the leading party in establishing a brand new sub-campus and defining corresponding academic programs and staff since 1994. The outcome of the project now is a high standard university campus providing a full range of skilled graduates to Marshall, other paint manufacturers, paint distribution and application channels, and many other developing sectors in Turkey.

Detailed description of the project/idea

For Turkey on its way to the European Union, professional education is the key to continuous economic growth. Despite the vast demand for well-trained workers, Turkey has an unemployment rate of 11.2% – mainly unskilled people – which is greater than European average.

Our focus group to fulfill the employee requirements and their current employment scales are

- Paint manufacturers: 15,000 employees
- Paint distribution channels: 50,000 employees
- Professional painters: 300,000 employees

It was 1994 when Marshall decided to alleviate the need of skilled and well-trained workforce in the paint sector. A Technical Program on Paint Technologies at the Kocaeli University in the neighborhood is established and sponsored. This was a two year program for students who would work in the paint industry including its distributors and customers as middle level employees. To that purpose, Marshall Campus was created to accommodate some 1,500 students in addition to the existing main campus.

In 1999 the Kocaeli area experienced a big earthquake with more than 25,000 casualties. At our company this tragedy triggered massive support; Marshall Paints' management and employees contributions went into an overdrive. As the main campus of Kocaeli University was damaged and therefore 5,000 students were

deprived of accommodation, it was decided to restore and enlarge Marshall Campus as quickly as possible to provide temporarily shelter to those students.

By donating a total sum of \$5 million (\$2 million from Marshall Paints and \$3 million from the Uzunyol Family), this major operation was carried out within one month. The 5000 extra students were accommodated and education in the region could be sustained. For five years, a total of 6,500 students continued their education at Marshall Campus while the main campus was rebuilt. Currently – after the reopening of the main campus in 2004 – only 1,500 students are enrolled to one program at Marshall Campus.

Since 1999, new training programs have been introduced which help graduates to find adequate jobs within different sectors both nationally and internationally. The current programs are:

Technical programs

- Paint technology
- Cosmetics technology
- Insulation technology
- Photography and Video Recording
- Occupational Health and Safety

Administrative programs

- International trade
- Accounting
- Shop management
- Public and Private Security
- Logistics
- Entrepreneurship

Also, a one year foreign language course will be included in the programs to generate better international job opportunities.

Since 1994, almost 2,700 students successfully graduated from several departments, of which 530 students from the Paint Technologies Department. Of the latter, 115 did an internship with Marshall Paints during their study. Also, since 1994, 29 graduates of Kocaeli University have been recruited by Marshall Paints.

In 2006, the number of active academic staff is 36, training 2,460 students in day-

Additional information

time and evening courses. The plan for 2006-07 season is 3,500 students.

Marshall employees have also participated as temporary academic staff, providing 98 hours of various courses at the Marshall Campus.

Academic staff of the Marshall Campus have published six books, 10 locally published articles, one international article, 11 abstracts up to now.

Starting with 2005 graduates, Marshall Paints started to use its corporate website as a marketplace for jobs. At this moment, our distributors and suppliers are encouraged to regularly refer to this web site as an HR database to fulfill their personnel requirements.

Far from being mere charity, or single-minded support for the development of the paint sector and our business, we are confident, that our broad support to raise the educational level of our young generation, will bear fruit and have a decisive impact on the economical development of our country.

From a constructive perspective, the contributions to the University have been 13 buildings, 29 classrooms, five Administrative Affairs buildings, one dining hall, five laboratories, one canteen, two computer laboratories, one photography and video recording studio and one guest house.

New projects

New projects are defined to improve the academic and social capacity of the Marshall Campus to be implemented until 2008. Budget requirements of these projects are funded partially by the government and partially by private donations.

Germany: specially created "wheelchair bikes" (page 44)

Employees of Base Chemicals in Bitterfeld started a project to enable disabled people to enjoy nature using specially created "wheelchair bikes". This combination of a wheelchair and bicycle which can be ridden by a second person was discovered by one employee during a holiday with her

disabled husband. When she returned to Bitterfeld she looked for similar possibilities without any luck.

When she heard about the opportunities the Akzo Nobel Community Program offers she decided to try and create similar possibilities in Dübener Heide, the traditional recreation area nearby. She showed the local authorities a photo of herself and her husband on the wheelchair bike and received an enthusiastic reaction. With four colleagues and the local nature office, she checked several routings in the park and they were developed for the wheelchair bike. Through another contact she found a supplier, making it even possible to use the wheelchair separately for entering public buildings, restaurants and so on.

With the support of the Community Program two bikes were purchased and can now be rented for €6 a day and they are hoping to buy more.

China and Indonesia (page 44)

In China the joint projects will focus on Red Cross-based health programs, including the prevention of HIV/AIDS through informing and training young people and migrant laborers in those areas where Akzo Nobel is active.

In Indonesia a pilot project was executed in the poor Cipulir district of Jakarta. This area is frequently hit by floods and fires and has an extremely high housing density and a large number of sick people. The Red Cross/Akzo Nobel support focused on community-based first aid training activities, the prevention of dengue fever and general improvement of health and living conditions of some of the 500 poorest families. Based on the results of the pilot project these activities will be extended to local homeless people and street children as well as in other areas where Akzo Nobel is situated and where employees can be involved.

In Indonesia €100,000 was made available for additional relief aid for the victims of the earthquake that hit the Yogyakarta area at the end of May 2006. Employees of all Akzo Nobel business units in Indonesia

helped the Red Cross with the distribution of school uniforms, shoes, books, stationery and bags to children who could resume their normal education shortly after the disaster devastated their living conditions.

Research and Imagination:

"Logic can take you from A to B but imagination can take you anywhere." (page 45)

As Albert Einstein (1879-1955) once said about research: "Logic can take you from A to B but imagination can take you anywhere." In a company like Akzo Nobel, art has a clear social and creative function and stimulates employees' imagination.


Art, far from being an isolated phenomenon, is in permanent touch with society. Artists from the most diverse nationalities and political/religious backgrounds work together intensively in attention-grabbing social exhibition projects.

As early as the middle of the last century the well-known artist Joseph Beuys (1921-1986) was calling his work Social Sculpture. Based on the idea that every person possesses creative talents, he maintained that everyone is an artist in their own field. He wanted to use this to strengthen or shape the social system by harnessing the creative potential in society.

Contemporary artists whose work is part of the Akzo Nobel collection, such as David Bade, Roy Villevoey, Tjong Ang and Meschac Gaba, work from these ideological principles.

In their work they show the results of social and cultural teamwork projects that they carry out with diverse communities. The results of these projects can be found in our collection in photos, videos, paintings or sculptures. The art shows us a world beyond our own parameters, outside the company in which we work and beyond our field of vision.

Guided tours around these works often result in heated discussions and people are encouraged to come up with creative ideas and to participate.



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