

## REPORT BY THE MANAGING BOARD

### GENERAL REVIEW AND STRATEGY

In 2004 DSM posted a considerably better operating profit and net profit from ordinary activities than in 2003. At € 489 million, the operating profit was 66% higher than in 2003, and the net profit from ordinary activities (€ 359 million) was up 54%.

The year was characterized by strong performances of DSM Nutritional Products and the Performance Materials and Industrial Chemicals clusters. The Life Science Products cluster showed a substantial deterioration of profits. This was due in particular to very weak market conditions for DSM Anti-Infectives and, to a lesser extent, DSM Fine Chemicals. There was a good balance between supply and demand in many of DSM's markets in 2004, and the company benefited from this with strong volume growth in many businesses compared with 2003. Organic sales-volume growth in 2004 amounted to more than 8%, which means DSM met its target of achieving an average volume growth that is twice as high as GDP growth.

DSM carried out a large number of reorganization and improvement projects in 2004. An inevitable result of these projects was that the number of employees decreased compared with year-end 2003, the overall decrease being about 1,900. In 2004 the company announced further restructuring measures for a few business groups in the Life Science Products cluster in particular and recorded a few asset impairments. A number of projects will continue in 2005. In this way DSM worked hard to further improve its profits and return on investment.

The year 2004 showed that DSM is on the right track with its strategy and activities. DSM will continue its programmes aimed at structurally improving its profitability. When it comes to further improving the company's profitability, the rising prices of raw materials and the unfavourable exchange rate of the US dollar against the euro are both major negative factors, alongside the weak market conditions for DSM's pharma-related activities in particular (representing about 15% of overall sales). Large-scale restructuring and adjustment programmes are currently being implemented by a number of business groups and at various production sites. We have also started a series of major cost-saving projects on the purchasing side. In conjunction with innovations and the development of new products this will provide a strong platform for our performance in 2005.

By concluding the takeover of NeoResins in early February 2005 DSM has now completed the strategic transformation of its portfolio that it decided to undertake in order to implement its *Vision 2005* strategy. The aim of the strategy, which was launched at the end of 2000, was to rapidly transform the group into a specialty company that would enjoy global leadership positions in relatively high value-added markets characterized by strong growth and more stable financial results. DSM took various steps during the period from 2001 to 2004 to achieve this aim. The company's financial position remained very healthy during this process. Major divestments in this period were the sale of DSM's profit rights in Energie Beheer Nederland in 2001 and the sale of its petrochemical business to SABIC a year later. Together, these two moves created sufficient financial scope for the takeover of Roche's Vitamins & Fine Chemicals division (now DSM Nutritional Products) in 2003.

The Vital project, a restructuring and transformation process launched immediately after the acquisition, led to a large number of improvements in 2004, including lower cost and higher profitability. The project has also revealed the huge technological potential of DSM Nutritional Products, and has resulted in various synergetic benefits, for example in the form of joint development and distribution of certain products. DSM Nutritional Products' first full financial year was highly satisfactory. The further process of integration and transformation is again likely to take up a great deal of energy in 2005, though. The Life Science Products cluster and DSM Nutritional Products make DSM the world's largest supplier to the life science industry.

The acquisition of NeoResins at the beginning of February 2005 has assured DSM of a place among the world's top five suppliers of coating resins. The takeover is fully in line with DSM's objective, as set out in the *Vision 2005* strategy document, of strengthening its position in the performance materials market. NeoResins has a number of highly profitable businesses spread all over the world, in markets that are growing at a rate of around 6% per annum.

Apart from falling within the financial bandwidth DSM set itself, both acquisitions have injected greater stability into the company's portfolios of life science products and performance materials and have created new perspectives for profitable growth.

The main priorities for 2005, alongside the further integration of the new members of the group, will be to further reinforce and expand the group's internal control framework, to introduce the updated corporate requirements, to achieve a further improvement in profitability, and to make full use of opportunities for profitable growth based on innovation and geographic strengthening, particularly in China. For example, in 2004 we signed a Letter of Intent with the Chinese company North China Pharmaceutical Group Corporation (NCPC) to invest USD 25 million in NCPC Ltd., giving DSM a 7% stake in the company's share capital. The aim of this intended participation is to enable us to form joint ventures for producing vitamins and antibiotics. NCPC Ltd. is one of the largest producers of vitamins and antibiotics in the People's Republic of China and is listed on the Shanghai stock exchange.

The situation today is that specialties account for about 80% of DSM's sales, which was one of the targets of the *Vision 2005* strategy. DSM has reduced its dependency on end-use markets that are sensitive to supply-driven trade cycles and has strengthened its presence in growth markets. Its financial ratios have remained in an excellent state throughout the transformation process. DSM maintained its 'A' credit rating.

During the period from 1 October 2000 to 31 December 2004, DSM shares generated an average annual return of 15%, including dividend. Over the past few years DSM has twice been the best performing stock (in terms of Total Shareholder Return) in both the AEX index at Euronext Amsterdam and the Dow Jones EURO STOXX Chemicals index. Last year DSM was the third-best performing stock in the AEX index and the second-best performing stock in the Dow Jones EURO STOXX Chemicals index. DSM shares increased by around 50% in value between 1 October 2000 and 31 December 2004.

We began preparing for the next Corporate Strategy Dialogue at the end of 2004. This involves evaluating the *Vision 2005* strategy we have pursued in the past few years and the impact it has had,

and planning a new strategy for the next few years. The new strategy will be announced in October 2005.

## THE DUTCH CORPORATE GOVERNANCE CODE

The publication of the Dutch corporate governance code (Tabaksblat code) represents an important milestone in the evolution of corporate governance in the Netherlands. DSM took advantage of the opportunity to comment on the draft version of the code of practice, pointing out that it should not diverge too much from the rules and views prevailing in other relevant countries, such as the USA and the UK, and should not contain overly detailed regulations. A large proportion of DSM's suggestions were incorporated in the final version of the code of practice published at the end of 2003.

We used the time available to us in 2004 to further analyze the code's practical implications for DSM, and to make and implement plans for complying with its provisions. In fact, many of the Code's Principles and Best-Practice provisions were already common practice at DSM. For example, our annual report already contained a description of our principles on corporate governance, we had for some time exercised a great deal of transparency regarding the publication of information on the remuneration of the members of the Managing Board, we had already adopted a set of regulations and a profile for the members of the Supervisory Board, and the annual report already included an extensive report compiled entirely independently by the Supervisory Board on its activities during the past year. Also, we had already asked our shareholders to authorize us to introduce a registration date system for shareholders wishing to attend the annual general meetings of shareholders. We used this system for the first time in 2004. Assessing and managing business risks was already an issue to which we attached high priority. In 2004, we focused on further structuring our efforts in this field, mainly by formulating requirements, procedures and internal control mechanisms, and of course by analyzing company-specific risks and taking measures to avoid these risks or minimize any adverse consequences they might have. This annual report contains a detailed description of our business risks and the way in which we manage and control these risks. This extensive reporting is one of the consequences of the way in which we have chosen to implement the Tabaksblat code.

The Tabaksblat code comprises 21 Principles and 113 Best Practices. All of these have been thoroughly analyzed and discussed in meetings of the Managing Board, the committees operating under the Supervisory Board (i.e. the Audit and Nomination & Remuneration Committees) and the full Supervisory Board, in the light of current company philosophies and practices. The outcome of these analyses and discussions is that we endorse all 21 Principles and that we actively uphold and support these Principles, in particular insofar as they relate to the activities of the Managing Board, the Supervisory Board or a committee operating under the Supervisory Board.

We also found that, of the 113 Best Practices, only one is not in line with what we consider to be logical and effective. This is Best Practice III.5.11, which stipulates that the remuneration committee shall not be chaired by the chairman of the Supervisory Board. We consider remuneration to be an integral part of our nomination and retention policy and hence of our human resource management policy for the company's senior management. We therefore consider it desirable for the Chairman of the Supervisory Board to be

directly involved in preparing decisions taken by the full Board, also in view of the role played by the Supervisory Board Chairman vis-à-vis the Managing Board. For the same reasons (i.e. logical cohesion and efficiency) we have chosen to make a single committee responsible for selection, nomination and remuneration. In our opinion, there is no reason to opt for two committees in our case. We are compliant with all other 112 Best Practices, either because we already had these practices in place before the Tabaksblat Code was published or because we have adapted our methods and procedures to the Code. For example, we have largely reformulated the regulations for the Managing Board and the Supervisory Board, we have rewritten the charters for the committees operating under the Supervisory Board and we have changed the profile description for the Supervisory Board, to bring them all in line with the provisions of the Tabaksblat Code.

All of these documents may be consulted on our website. The same holds for the whistle-blowing procedure which we published in 2004 and which took effect across the entire company at the beginning of 2005. In an explanatory note for our staff, we stressed that whistle-blowing will normally be done only in cases where there are good reasons why an employee cannot report cases of potentially undesirable conduct through the usual channels, i.e. directly to the person involved or to his or her manager. An open corporate culture is a key prerequisite for good corporate governance.

We have drawn up a report on our remuneration policy – comprising the elements suggested by the Code – and discussed it in depth. The report (see page 44) will be submitted for adoption by the Annual General Meeting of Shareholders in April, so that the shareholders can formulate a standpoint. In the same shareholder meeting, a proposal will be presented for the appointment of a new Managing Board member, for a period of four years.

The report of the Supervisory Board to the shareholders (see page 39) contains a detailed account of how the Supervisory Board fulfilled its supervisory duties and a report, in conformity with the Best Practices set out in the Tabaksblat Code, on the Supervisory Board's working methods, independence and expertise and on the composition of the Supervisory Board and the committees operating under the Supervisory Board. The Supervisory Board members and the Managing Board members did not hold any more supervisory directorships than the number now prescribed by the Code as a Best Practice. The Supervisory Board does not include any former members of the company's Managing Board. The new Supervisory Board member, Mr Ewald Kist, has followed an induction programme, and similar arrangements will be made for all future new members of the Supervisory Board. There were no conflicts of interest, either in the Supervisory Board or in the Managing Board, between the company and an individual Board member.

The company has not issued, and will not issue, any loans to members of the Supervisory Board or the Managing Board. DSM has not appointed any delegated Supervisory Board members and has not issued any depositary receipts for shares.

The Annual General Meeting of Shareholders on 31 March 2004 adopted our proposal to convert Royal DSM N.V. from a company with a special Large Company Regime status into an ordinary public limited company. As a result of the amendment of the articles of association along these lines, the shareholders now have a direct say in the appointment of members of the Managing Board and

the Supervisory Board, their rights are now documented in conformity with the Best Practices of the Code, and various other points relating to the Code have been incorporated into the articles of association.

With regard to the provision of information, DSM was already applying most of the Best Practice provisions of the Code, and is now applying all of them. The only protective device available to DSM is the option of issuing cumulative preference shares B. Information on this form of takeover defence is given on page 90. The aim of this defensive measure in the event of an unexpected takeover bid is to create the time needed for carefully weighing all interests involved. Communication between our external auditors and our Corporate Operational Audit Department is fully open.

The above is a detailed, albeit not exhaustive, description of how DSM complies with both the spirit and the wording of the Dutch corporate governance code. As we indicated in our previous annual report, the implementation of the Code has not led to any fundamental changes in our thinking or actions, but has enabled us to tighten up and formalize our policies. At the Annual General Meeting of Shareholders on 6 April 2005 we will discuss the way in which we have implemented the Code, based on the above considerations and the regulations and charters (including the whistle-blowing procedure) published on the Internet.

All in all, the Managing Board and the Supervisory Board are of the opinion that DSM has its corporate governance house in order and has successfully translated the new Code's recommendations into day-to-day practice. External rating agencies are generally positive about DSM's corporate governance. We ourselves consider DSM's open corporate culture an important contributory factor in securing the effective checks and balances that form the basis of good corporate governance. Our quest to internationalize our Managing Board and Supervisory Board will also help in this process. Besides internal openness, we also attach great importance to transparency and openness to the outside world, to our shareholders and other stakeholders, an openness which we seek to achieve among other things through our sustainability policy (see also our Triple P Report for 2004 on the aspects of People, Planet and Profit). The "outside world" is a vital source of the checks and balances that we need, and in this respect it too helps optimize our corporate governance.

## RISK MANAGEMENT

The Managing Board of Royal DSM N.V. is responsible for the design and effectiveness of the company's internal risk management and control systems. The purpose of these systems is to identify any significant risks to which the company is exposed and enable the effective management of these risks. However, these systems can never provide absolute assurance regarding the achievement of corporate objectives and can never entirely prevent the occurrence of material errors, losses, cases of fraud or the violation of laws or regulations.

Every year the Managing Board undertakes a Corporate Risk Assessment (CRA). In 2004 it performed a CRA in which three major risk areas were identified: (1) the entry of Chinese low cost competitors into DSM markets, (2) the company's capacity for organic growth via innovation and (3) the availability of sufficient high-calibre managers and professionals to safeguard the future

development of DSM. It was decided to further investigate these three topics. The review results will be important input for the new Corporate Strategy Dialogue (CSD) that will take place in the course of 2005.

In 2004 we carried out an independent and systematic analysis and review of the control environment and relevant risks to which the DSM organization might be exposed. We also reviewed the effectiveness of the risk management and control systems that are being used by the various units. The managements of the relevant units carried out similar evaluations and reported the results. We regularly discussed these results with the respective units. We discussed a summary of all risks and the associated risk management and control activities with the Audit Committee and the Supervisory Board. For an extensive description of our approach to risk management and control, see the section on risk management on page 57 of this annual report.

Based on the activities reported in the risk management section we believe, to the best of our knowledge, that we can assert with reasonable assurance that the internal risk management and control system of Royal DSM N.V. was effective during the 2004 financial year.

However, the design and effectiveness of the risk management and control system are subject to continuous improvement. A considerable improvement in 2004 concerned the revision and tightening-up of the company's Corporate Requirements. The new Requirements are being implemented systematically at all units of DSM, a process that started in 2004. The main elements of the Requirements, especially those that concern goods and money flows, are targeted to be implemented in 2005.

In subsequent years we will continue to give high priority to improving risk management and integrating it into day-to-day operations.

## SAFETY, HEALTH AND THE ENVIRONMENT (SHE)

### SAFETY

In 2004 the lost-workday-case frequency index (the number of LWCs per 100 DSM employees per year) decreased slightly. At year-end it stood at 0.22 (2003: 0.23). In 2004 the total number of Recordable Injuries, including contractors, was 204, which is 0.88 per 100 employees. This is a decrease of 22% compared with 2003, when the frequency index was 1.13. These two indicators put DSM among the top 25% in its peer group. Further improvements will have to come from achieving even higher levels of compliance, drawing lessons from incidents, stepping up our training efforts and introducing programmes for changing management and staff behaviour. In 2004 a great deal of progress was made in the compliance programme launched in 2003. The bulk of the programme will be completed in 2005. The completely overhauled Safety, Health & Environment course for senior managers was given nine times in 2004. At some sites Behaviour Based Safety programmes were launched.

An explosion took place at our glyoxylic acid plant in Linz (Austria) in 2004. Thanks to the action taken in the wake of a previous explosion at the same plant, no damage was caused in the surrounding area and no-one was injured. It has been decided to discontinue the production process in its current state.

## HEALTH

Twenty cases of occupational disease were reported worldwide at DSM in 2004. This represents a decrease of 25% on the figure for 2003 (27). The cases varied widely in nature, ranging from allergic complaints to back injuries and RSI.

One of the findings of a health-care analysis performed for all our sites in 2003 and 2004 was that the various DSM companies worldwide do not share a common definition of 'occupational disease'. In response to this finding we are now working on the further standardization of working methods, including the reporting of cases of occupational disease.

## THE ENVIRONMENT

DSM once again succeeded in reducing virtually all types of emission in terms of volume per unit of product. The company has already achieved nine of the fourteen environmental targets set for 2006.

DSM has started benchmarking the environmental performance of its main products against a peer group of companies. This year's Triple P Report contains a report on the progress made in this analysis and on the initial results.

The number of environmental incidents classified as serious fell from eleven in 2003 to four in 2004. Alongside these environmental incidents, the practice since 2002 has been to report all other incidents in which substances are released (loss of primary containment). 522 of these incidents occurred in 2004, down 30% from 2003 (746).

## HUMAN RESOURCES

### ONGOING TRANSFORMATION AND INTERNATIONALIZATION

The integration of DSM Nutritional Products was one of DSM's most important activities in 2004, not least from a human resource management point of view. Among the tools used for smoothing the integration process were special editions of the DSM induction course for senior managers of DSM Nutritional Products, a management exchange programme and the introduction of the DSM Management Development system at the new group member. High priority was given to open communication, which we regard as a critical factor in the success of the integration.

Against the background of the group's continued internationalization, DSM formulated a new policy on international assignments that came into effect on 1 January 2005. The policy applies to expatriate staff all over the world and is designed, among other things, to provide better support for the staff concerned, to help control costs and to achieve greater consistency in the terms of employment applying to expatriate staff.

### DEVELOPMENT, APPRAISAL AND MOTIVATION

DSM's management training institute, known as the DSM Business Academy, launched a new learning format for professionals, managers and executives in 2004. The new format includes training courses in management and leadership skills. The first module of the first new programme (known as the Executive Leadership Programme) was completed at the beginning of November 2004. Other courses operated by the DSM Business Academy in disciplines such as R&D and marketing & sales will be aligned with our new approach in the field of management and leadership.

DSM organized its first 'Talent Development Centre' at the end of 2004. This Centre complements our Management Development system and is aimed at speeding up the process by which highly talented staff are promoted to executive level. The Talent Development Centre runs a three-day course in which ten participants receive training involving both individual exercises and groupwork.

Following the introduction of a performance appraisal system for executives in 2003, last year saw preparations made for the introduction of a similar system that will apply to all managers. The new system will be introduced in 2005.

The development of a culture based on diversity is part and parcel of DSM's personnel policy. In order to promote flexible working practices for both men and women, targets have been set for each business group in relation to the recruitment, appointment and promotion of women and staff working flexitime to senior management posts. Progress was made in most of these areas in 2004: at the end of the year the percentage of female executives stood at 3% (as compared with 1% at the end of 2002); the percentage of female senior managers was 8% (7% at the end of 2002); and 2% of executives and 7% of senior managers were working in flexitime at the end of 2004 (the same as at the end of 2002).

So as to gain a clearer picture of staff motivation and commitment, DSM conducted a worldwide working climate analysis in the form of a representative survey among over 4,000 members of staff in June 2004. The high response rate (75%) is illustrative of the importance that staff attach to the issue. Our scores were generally in line with those of comparable companies in our industry. There were a number of areas, however, in which we scored much better than the field; these included safety and environmental protection, employee empowerment, teamwork, working climate, the rating of direct superiors, and pay and appreciation. In certain other areas, though, such as employees' perception of job security and their perception of the company's competitiveness, we scored worse than the reference group. Most of these scores came from employees in units where major reorganizations are taking place. Please see our Triple P Report for 2004 for further information on the results of the working climate analysis.

### DSM WORKFORCE AS AT 31 DECEMBER 2004:

x € million	2004	2003
Europe	15,624	16,841
– the Netherlands	7,529	7,996
– rest of Europe	8,095	8,845
Asia	3,519	3,597
North and South America	4,569	5,101
rest of the world	468	572
<b>Total</b>	<b>24,180</b>	<b>26,111</b>

## REORGANIZATIONS AND RESTRUCTURING MEASURES

In 2004, as in 2003, DSM implemented restructuring operations and reorganizations in response to a still vulnerable economy, intensified competition, the weak dollar, sharply increased raw material prices and specific problems in a number of important markets. In 2005, too, the effects of restructuring operations will make themselves felt. In 2004 we closed several plants. The first phase of the Vital transformation and integration programme at DSM Nutritional Products led to job reductions in various countries,

in particular in Western Europe. In the Netherlands we launched the Copernicus project to streamline manufacturing operations at the Chemelot site in Geleen. At the end of 2004, DSM Anti-Infectives announced drastic reorganization measures, including the closure of a number of production lines in the Netherlands. In addition, in several parts of the world projects are in progress that will lead to further job reductions in 2005. The total number of employees at year-end 2004 was 24,180, which is 1,931 less than at year-end 2003. In implementing reorganization and restructuring programmes we always proceed with great care. In restructuring programmes we closely cooperate with the works councils and trade unions and make extensive efforts to find solutions in the form of transfers, retraining programmes or a supported outplacement package. However, the scope of ongoing business-process improvement programmes that should lead to operational excellence in purchasing, manufacturing, ICT and pricing goes beyond job reductions; these programmes are mainly focused on operational effectiveness.

## RESEARCH AND DEVELOPMENT

### R&D AT LIFE SCIENCE PRODUCTS AND DSM NUTRITIONAL PRODUCTS

In 2004 we expanded our advanced catalysis facilities for corporate research into life science products. We developed new synthesis methods based on biocatalysis and homogeneous catalysis for complex organic compounds such as active ingredients of medicines. The new synthesis routes are cost-effective and low in both energy consumption and waste production.

We also expanded our genomics research. With our PeptoPro<sup>®</sup> recovery ingredient we were able to reap the initial rewards of our work in identifying the genome of the *Aspergillus niger* fungus. Production of this ingredient, which helps sportspeople recover more quickly after exercise, is based on the activity of two enzymes we discovered as a result of this genomics research. We also mapped the genes of other vital production organisms. We now make frequent use of our knowledge of genomics in looking for new products and improving production processes.

Collaboration with external research institutes is becoming an ever more important aspect of our desire to strengthen our technological potential. Through its involvement in the Wageningen Center for Food Sciences, DSM participates in a nutrigenomics programme sponsored by industry, Dutch knowledge institutes and the Dutch government. The programme seeks to use genome research to design new nutritional ingredients that can help prevent diseases. We are also involved in a partnership with various universities and other research centres, including the health and nutrition department of Maastricht University and the Kluyver Institute (which is part of Delft University of Technology), the aim being to analyze the genetic composition of micro-organisms. Joint programmes such as these are excellent examples of effective public-private partnership, and will form an increasingly prominent feature of the technological landscape in the future.

Research and development at DSM Nutritional Products supports this unit's activities in the field of human and animal nutrition and health and personal care. The organization boasts an impressive history as a pioneer in the production of active ingredients (e.g. vitamins and carotenoids) for a wide range of applications, and seeks to bring the same pioneering spirit to bear on the develop-

ment of new product generations.

The main objective as far as process improvement is concerned is to drastically lower the costs of production. The strategy continues to be one of introducing new, more economical and in most cases more sustainable processes and developing new production methods based on biotechnology. The synthesis of natural products and fermentation technology are two of DSM Nutritional Products' strengths. Following a meticulous analysis of the chemical processes currently used for producing our vitamins and carotenoids, we launched a research project last year into alternative production routes. In many of these areas, we are benefiting from strong synergies with the R&D departments of other DSM business groups. We achieved a revolutionary breakthrough in biotechnology by programming a special micro-organism to convert raw material into vitamin C in just a single step. The simplified fermentation process requires less investment than conventional techniques, and also makes production less complex. Implementation of the new technique could result in DSM becoming the world's lowest-cost producer of vitamin C. The relevant technology has been patented both with respect to the genes and enzymes used and with respect to the process itself. Commercial-scale production will require a few more years of research.

Regarding the development of new products, our R&D activities are geared towards our three principal markets of *human nutrition and health*, *animal nutrition and health* and *personal care*.

Our activities in relation to *human nutrition and health* focus on the development of nutritional ingredients that can help to reduce the risk of chronic diseases such as cardiovascular disease and diabetes. We use high-throughput screening to compare potential new products with our library of over 80,000 natural products and extracts. This automated process quickly shows which substances are capable of producing a beneficial effect. The selection process is based on our competences in biochemistry, chemistry, safety, food science, IT and other disciplines. In this way we are also strengthening our patent position in the health segment of the market, which is closely associated with the nutrition segment. In 2004, we used our new technique to make a product that may reduce the risk of diabetes. Nutrigenomics is also yielding more and more information on the complex interrelationship between nutrients and genes. A single experiment with a single chip is sufficient to study the expression of a large number of genes (up to 10,000), thus producing vital information on the regulation of genes and enzymes and the role they play in human and animal wellness. We possess the necessary competences and are already using the technology. One example of a new product for the human nutrition market is Teavigo<sup>®</sup>, the healthy main ingredient of green tea. Its role is to speed up fat-burning and reduce the cholesterol level. Teavigo<sup>®</sup> is the purest commercially available form of the catechin EGCG, the ingredient that is responsible for these effects. We are marketing the new product as a food ingredient and supplement.

Research into *animal nutrition and health* is designed to produce new additives for animal feeds. Working in conjunction with Novozymes, we design new enzymes for the animal feed market. This involves first screening potential enzymes with the aid of enzyme databases, and then testing their action by conducting experiments during the animal's growth period. This strategy has resulted in a breakthrough in the search for and the development of new products for animal feeds. Our research in 2004 generated a range of

promising enzymes that we are now developing further. We discovered new properties in VevoVital<sup>®</sup>, a highly pure form of benzoic acid that we produce with the aid of patented technology and that we put on the market a year ago. VevoVital<sup>®</sup> reduces ammonia emissions from pig manure by 35% and stimulates healthy piglet growth, causing piglets to grow between 10 and 20% more rapidly. In these respects VevoVital<sup>®</sup> offers a better performance than conventional, antibiotics-based or other substances that are currently in use and that will be banned in the EU as of 2006. In order to offer to the animal feed industry alternatives to antibiotic type growth promoters, DSM Nutritional Products has established an R&D program under the title "Eubiotics". Eubiotics are defined as substances that aim at modulating the gut microflora of animals. DSM Nutritional Products is very well placed to develop these products. Drawing on a large library of natural products, screening tools on molecular, chemical and microbiological level will be combined with focused testing in target animal models. Currently DSM Nutritional Products pursues three different approaches to identify and develop effective concepts, which are expected to bring real innovation to animal nutrition and wellness. The projects are in different stages, ranging from early screening to development of an identified compound.

Our main objective in the *personal care* market is to design UV filters that can provide protection against the sun, as well as other active ingredients that are beneficial to skin and hair health. Using our knowledge of UV filters, chemistry and biology, we developed a means of transferring the active UV chromophore to a polymer carrier. Our Parsol<sup>®</sup>SLX is the first organic UV-absorbing agent to combine a polymeric structure with extremely good protective properties. Parsol<sup>®</sup>SLX has a high protection factor, can readily be used in conjunction with popular cosmetic products and does not penetrate the skin. Its molecular structure also means it has other potential applications, such as protecting hair from damage caused by UV radiation. The underlying technology, which we have patented, offers plenty of potential for developing other filters. We also discovered a promising personal care application for Teavigo<sup>®</sup>, a product that we are already selling in the human nutrition market. The new product prevents dental plaque and inflammation of the gums, and also helps to produce fresh breath. We used patented technology to give Teavigo<sup>®</sup> the stability needed in toothpaste.

#### R&D AT PERFORMANCE MATERIALS

A number of innovative projects were added to the R&D programme for Performance Materials in 2004, so as to ensure that we can meet our customers' demands even better and also to promote sustainable growth of this business. Our research activities are geared mainly towards developing new products and applications, improving processes and developing applications know-how, all so that we can satisfy the demand in the market for performance materials. We also continued to acquire new skills in using biotechnology and nanotechnology in the production of new materials.

The Technology Transfer Process introduced last year ensures that sustainability aspects are given due attention when technologies are transferred to the various business groups.

We developed a range of new engineering plastics, rubbers, resins and coatings in 2004: Akulon<sup>®</sup> XB, which has very good barrier properties and is designed to be used as a food packaging film, Stanyl<sup>®</sup> Super High-Flow for connectors, various materials based on Sarlink<sup>®</sup> thermoplastic vulcanizates for automotive seals and various consumer products. Our new version of EPDM is a unique

product for the market for dispersants. We managed to considerably improve the gas and fluid tightness of EPDM with the aid of a coating made up of nanoclay particles. We developed new resins for radiation-curable powder coatings for floors, glass fibre-reinforced plastics and MDF (medium-density fibre board), as well as a new line of TGIC (triglycidyl isocyanurate) and hybrid powder coating resins that cure at low temperatures.

Other new products are bonding pastes for wind-turbine rotor blades and boats and Dyneema<sup>®</sup> Purity for medical applications such as sutures. Micabs<sup>®</sup> is a technology for the marking of plastic objects (regardless of the substrate) with the aid of a laser. Opto-Clear<sup>®</sup> is a UV-curable anti-reflection coating that DSM Desotech designed with the aid of nanotechnology. Celltex<sup>®</sup> is a functional coating for the foodstuffs and pharmaceuticals industries. Neogel<sup>®</sup> Eco is a new series of gel coats for the boat building industry characterized by low styrene emission.

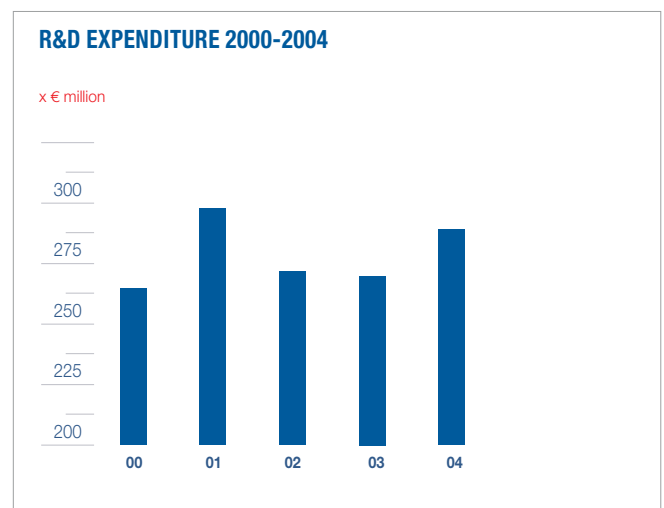
#### R&D AT INDUSTRIAL CHEMICALS

We seek to strengthen our position in industrial chemicals mainly by improving our production processes and introducing new innovation programmes. In 2004, for example, we implemented improvements at our acrylonitrile plant in Geleen, the Netherlands, that will save us several millions of euros each year. The medium-term projects involve research into innovative processes. These form part of the Corporate Research Programme, which we are implementing in close collaboration with the R&D managers at the business groups. The Melamine Skill Centre is responsible for melamine customer support and central research, and receives a great deal of assistance from the various other R&D groups, including the central analysis and technology departments.

#### EXPENDITURE

Expenditure on research and development (R&D) amounted to € 286 million in 2004, which represents 3.7% of DSM's net sales. R&D expenditure on Life Science Products represented 5.6% of net sales. The comparable figure for Performance Materials was 3.9% and that for Industrial Chemicals 1.0%. At DSM Nutritional Products, R&D expenditure amounted to € 75 million, which represents 3.9% of sales. As at 31 December 2004, a total of 1,890 staff were employed on R&D activities, representing about 8% of the aggregate workforce.

#### INTELLECTUAL PROPERTY



As a result of the transformation of DSM into a multi-specialty group, the role of intellectual property is becoming increasingly important.

We have a portfolio of some 13,000 patents and patent applications all over the world. Over 230 new patent applications were filed in 2004, about an eighth of which were on behalf of DSM Nutritional Products. Important applications were filed in fields such as new materials, ingredients for human and animal nutrition, and new applications for laser technology. Our leading technology positions are supported by strong IP portfolios, for example with regard to Stanyl<sup>®</sup>, Dyneema<sup>®</sup> and Ronozyme<sup>®</sup>.

The acquisition of NeoResins from Avecia has added over 250 patents and patent applications in the field of coating technology to our patent portfolio.

DSM owns over 1,000 trademarks in a wide range of markets throughout the world. The company's branding policy revolves around the branding strategies developed by the business groups. Major new brands include Teavigo<sup>®</sup>, Optisharp<sup>®</sup>, Optoclear<sup>®</sup>, Redivivo<sup>®</sup>, Chiralitree<sup>®</sup> and a logo designed for products made with Dyneema<sup>®</sup>. We made progress in aligning the branding strategies for the various products using the DSM Brand Book, which sets out the principles and regulations applying to our corporate identity and branding policy.

We paid special attention to the IP situation in China, which remains vulnerable but is showing signs of gradual improvement. We currently own over 300 Chinese patents. We strengthened our IP organization not only in China but also in Switzerland and the USA.

One of the consequences of our transformation is that we are exercising our IP rights more aggressively against our competitors, while our competitors are doing the same against us. In many cases, the profitability of knowledge-intensive products is closely bound up with the relevant IP position. Last year saw the settlement of a number of court cases and the commencement of proceedings in relation to disputes concerning products in the performance materials and animal and human nutrition markets.

## ICT

### TECHNICAL INFRASTRUCTURE

DSM Nutritional Products was assimilated in the overall DSM ICT infrastructure in 2004. All DNP sites, around 80 in total, were added to the network; applications were transferred, and websites and e-business web applications were adjusted. The process of separating the business applications which DNP shares with its former parent company, Roche, will be completed during the course of 2005. A number of improvement projects were also launched as part of our Vital integration programme.

We expanded our ICT infrastructure in China in order to support the strategy we are pursuing in the Chinese market.

The security of our ICT infrastructure was a high-priority issue last year, on account of the sharp increase in threats in the form of viruses and attacks by computer hackers. We managed to save on licensing costs by standardizing business applications at a number of sites.

### BUSINESS PROCESS STANDARDIZATION

At a number of DSM units – including DSM Dyneema, DSM Fibre Intermediates and DSM Pharmaceuticals Inc. – projects were carried out in 2004 to put in place standardized and integrated business processes. DSM Pharmaceuticals Inc. in particular needed an ERP system that complies with the requirements laid down by the FDA (the US Food and Drug Administration). The business units whose systems had already been integrated made further improvements, particularly in relation to demand and supply chain management. We also set up a new service organization that will be handling payments on behalf of all DSM units in a standardized way.

As part of the Operational Excellence programme, both DSM Elastomers and DSM Dyneema implemented new work processes for plant maintenance in 2004. Similar processes were also started at for example the Geleen (the Netherlands) site and a number of production sites of DSM Nutritional Products.

## E-BUSINESS

Our aim when we started using e-business in 2001 was to process at least half of our orders on line by 2005. Over the past few years we have invested in a high-quality e-business architecture and infrastructure. Important gains have been closer cooperation with our partners thanks to direct system connections, a 24-hour webshop for customers, e-logistics, electronic conferencing and electronic invoicing and payments. Groupwide, over a third of all orders were placed using e-business platforms in the year under review. There was a 90% increase in the number of ERP connections compared with 2003. The number of orders placed through the webshop quadrupled in 2004, and we have succeeded in using e-logistics to considerably speed up loading and unloading operations at a number of sites.

We intend to further expand our e-business capabilities in the coming years. In 2005, we will be refining our webshop and adding rail and possibly also ship transportation modules to our e-logistics programme, which to date has been used primarily for road transport purposes.

## PURCHASING

We continued to work on the further professionalization and repositioning of our purchasing activities in 2004, as part of a process started in 2003. Following the installation of the DSM Purchasing Board at the end of 2003 and the launch of a cost reduction project, purchasing has now become an integral part of the group's operations. In the summer of 2004 a Chief Purchasing Officer was appointed whose job it is to plan the future corporate purchasing organization and to design a management model for it. This will also involve developing a global purchasing strategy as an integral part of the group's business strategy. The sharp focus on the professionalization of our purchasing activities should generate lasting savings.

The cost-cutting programme we launched early in 2004 is designed to achieve annual savings of € 150 million on the level of expenditure in 2003. These savings are to be fully achieved in 2006. We are also making efforts to professionalize our purchasing activities even further. Staff are receiving training in various fields. In the knowl-

edge that outstanding purchasing practices cannot be achieved without transparency in purchasing spend, we adopted new standard tools to ensure this transparency. We are also giving high priority to the quantification, via quarterly reporting, of the savings made. The new purchasing strategy will be implemented by a central unit, which will have regional branches in Europe, the USA and Asia. The new organization will become operational in the course of 2005.

## INTERNATIONAL FINANCIAL REPORTING STANDARDS

2004 was the last financial year on which DSM has issued a financial report based on Dutch accounting rules. From the financial year 2005 onwards, DSM will change over to the International Financial Reporting Standards (IFRS), which are mandatory for all listed companies in the European Union. This changeover has involved an adjustment of internal accounting rules and a corresponding adjustment of systems, as well as extensive communication with and training of financial employees. To facilitate comparison, this annual report contains an annex in which the balance sheet and results for 2004 (on a quarterly and annual basis) are represented in accordance with the IFRS.

## FINANCIAL RESULTS

### GENERAL

DSM's operating profit from ordinary activities in 2004 was € 489 million, up 66% on 2003. The figures for DSM Nutritional Products were included in the group figures for the entire year (as opposed to 2003, when its figures were only consolidated for the final quarter). Organic volume growth in 2004 amounted to more than 8%. At € 359 million, the net profit from ordinary activities was 54% higher than in 2003.

The *Life Science Products* cluster posted 2% lower sales in 2004, primarily on account of the lower dollar and the lower level of sales recorded by DSM Anti-Infectives. The operating profit showed a strong decrease, due to the further weakening of the US dollar, the losses incurred by DSM Anti-Infectives as a result of the historically low prices for penicillin and its derivatives, and the lower level of profit earned by DSM Fine Chemicals on account of the glyoxylic acid production outage.

Sales at *DSM Nutritional Products* were stable year on year; sales volumes were up but prices were under some pressure, especially in the animal nutrition segment. Margins remained stable on average. Both sales and operating profits were adversely affected by the lower dollar. The Vital project, the aim of which is to ensure that DSM Nutritional Products' activities are rapidly integrated and transformed, produced a sharp reduction in costs. In part as a result of this, the operating profit was higher than projected.

Sales in the *Performance Materials* cluster rose substantially thanks to sales volume growth coupled with higher prices. The higher level of sales volumes – which more than compensated for the slightly tighter margins during the year as a whole – raised the operating profit to a strongly higher level than in 2003. DSM Engineering Plastics and DSM Dyneema performed particularly well.

The *Industrial Chemicals* cluster posted a substantial increase in sales, with all the business groups recording higher sales volumes

and both caprolactam and ammonia attracting higher prices. The operating profit increased strongly, which was due mainly to higher sales volumes and margins for caprolactam and fertilizers.

### MACRO-ECONOMIC DEVELOPMENTS IN 2004

Macro-economic developments in 2004 were better than in the previous year. At 4%, the world economy posted the highest level of growth witnessed in the past four years. The USA, and also China and Japan, recorded sharp increases in GDP growth. World trade grew in volume terms by over 8.5% compared with 2003.

The world economy made relatively good progress despite geopolitical instability and sharp rises in the prices of raw materials. Chemical raw material prices rose across the board, and manufacturers of chemical intermediates in particular did not always succeed in passing on the higher prices to their customers. The result was pressure on margins. The hike in oil prices was especially marked: the average price of a barrel of Brent crude rose by over 30% compared with the year before. The US dollar lost further ground against the euro, its value falling by almost 10% compared with 2003. European exports suffered accordingly. European manufacturers of products whose prices on the world market are quoted in US dollars, such as penicillin, were also affected.

With a growth rate of about 2%, the growth of the European economy lagged far behind the rates posted by other regions. Demand in Europe did not grow as strongly as in other parts of the world. The main problems facing European governments were high unemployment, budget deficits and resistance to reforms of their social security systems.

The European chemical industry grew in line with European GDP growth, at 2.4%. All sectors performed better than in 2003. Chemical industry output in the US was up 5% on the previous year.

Overall chemical industry output in China was around 15% higher than in 2003. Output growth is expected to be around 10% per annum in the medium term.

It is generally expected that the growth of the world economy will flatten out somewhat in 2005. The old member states of the European Union are expected to post a disappointing 2% growth rate. The accession of ten new member states to the European Union is likely to have only a modest impact on the European economy, whilst the growth of the US economy is likely to fall back to 3.5%. The value of the euro against the US dollar will remain the dominant factor in this respect. A further substantial fall in the value of the dollar will have a profoundly adverse impact on the profits of the European chemical industry. Raw material prices and the balance of supply and demand in the various markets are additional uncertainties.

## FINANCIAL RESULTS FOR 2004

## Statement of income

x € million	2004	2003
net sales	7,752	6,050
other operating income	108	131
<b>total operating income</b>	<b>7,860</b>	<b>6,181</b>
total operating costs	-7,371	-5,887
operating profit from ordinary activities	489	294
balance of financial income and expense	-51	-31
taxation	-98	-49
profit from non-consolidated companies	8	5
minority interests	11	14
<b>net profit from ordinary activities</b>	<b>359</b>	<b>233</b>
<b>net result from exceptional items</b>	<b>-97</b>	<b>-94</b>
<b>net profit</b>	<b>262</b>	<b>139</b>

## Net sales

At € 7.75 billion, net sales in 2004 were 28% higher than in the previous year. DSM Nutritional Products accounted for an increase of 23% in net sales, contributing for a full year, and organic volume growth for the DSM Group as a whole amounted to more than 8%. Selling prices were virtually unchanged from the previous year. Lower exchange rates, and the decline in the value of the US dollar in particular, had an effect of -3%.

The following table shows the trend in net sales in each cluster:

x € million	2004	2003	Difference	Volumes	Consolidations and deconsolidations	Prices	Exchange rates
Life Science Products	1,882	1,963	-4%	8%		-10%	-2%
DSM Nutritional Products	1,899	*496	283%		283%		
Performance Materials	2,008	1,774	13%	13%	0%	3%	-3%
Industrial Chemicals	1,608	1,416	14%	9%		8%	-3%
Other activities	355	401					
<b>Total DSM</b>	<b>7,752</b>	<b>6,050</b>	<b>28%</b>	<b>8%</b>	<b>23%</b>	<b>0%</b>	<b>-3%</b>

\* fourth quarter only

## Operating costs

Operating costs rose compared with 2003, closing the year on € 7.4 billion. The main component of these costs, i.e. the cost of raw materials and consumables, rose by € 800 million.

Amortization and depreciation rose from € 429 million in 2003 to € 524 million in 2004. Of this figure, € 128 million (including € 9 million in impairments) was accounted for by DSM Nutritional Products (fourth quarter of 2003: € 42 million, including € 10 million in impairments).

## Operating profit from ordinary activities

The operating profit from ordinary activities rose by € 195 million (66%), from € 294 million in 2003 to € 489 million in 2004, mainly as a result of higher sales volumes. The EBITDA margin, i.e. the operating profit from ordinary activities before depreciation and amortization as a percentage of net sales, rose from 12.0% in 2003 to 13.1% in 2004.

With raw materials prices showing a strong increase and selling prices (expressed in euros) virtually unchanged, mainly as a result of exchange rate developments and price decreases in the Life Science Products cluster, the average margin, i.e. the selling price per unit of product less variable costs, was down on the 2003 level.

## Net profit

The net profit rose from € 139 million in 2003 to € 262 million in 2004. Expressed as earnings per ordinary share, the net profit rose from € 1.24 in 2003 to € 2.51 in 2004.

Financial expenses stood at € 51 million in 2004, as compared with € 31 million in 2003. The increase was due primarily to the acquisition of DSM Nutritional Products.

At 22%, the effective tax rate in 2004 was higher than in 2003 (19%). The 3% rise was the result of the higher total profit and hence the relatively lower share of profit components taxed at a low rate. The increase was in fact mitigated by corrections applied for previous years.

The profit from non-consolidated companies increased from € 5 million in 2003 to € 8 million in 2004.

The net profit from ordinary activities increased by € 126 million to € 359 million, which was largely due to the higher level of operating profit.

In line with announcements made in the fourth quarter of 2004, at the end of the quarter the Managing Board formulated and communicated a proposal for a comprehensive restructuring programme at DSM Anti-Infectives. This programme, including a related provision of € 44 million, was approved by the Supervisory Board in December 2004. In connection with the restructuring programme at DSM Anti-Infectives, the consequences of the investigation into the explosion at the glyoxylic acid plant in Linz (Austria) last summer and the refocusing of operations at DSM Biologics, a fixed-assets impairment of € 108 million has been applied.

Earlier in 2004, a provision had been created for an onerous contract (DSM Anti-Infectives), and a book profit had been recorded on the sale of an industrial site (DSM Elastomers). The total net result from exceptional items for 2004 thus amounted to € 97 million negative (2003: € 94 million negative).

Minority interests accounted for € 11 million (2003: € 14 million); the figure in question related to activities in North America and China.

#### CAPITAL EXPENDITURE AND FINANCING

Capital expenditure on tangible and intangible fixed assets amounted to € 334 million in 2004, which was considerably less than the figure for amortization and depreciation (for detail by core activity see page 18). This was due to the fact that, on the one hand, there was a difference in timing between the completion of investments and the start-up of new investment programmes, while on the other hand the selection criteria applied to new investments were extra strict in order to achieve a situation where the level of capital expenditure was below the level of amortization and depreciation. The level of capital expenditure in 2005 is expected to be slightly lower than the level of amortization and depreciation. At approx. € 600 million, the free cash flow was about 60% of EBITDA and almost 80% of the net profit plus amortization and depreciation from ordinary activities. This enabled the company to pay debts out of the cash flow to an amount of € 288 million and to repurchase the cumulative preference shares C for an amount of € 114 million.

#### Statement of cash flows

x € million	2004	2003
Cash at 1 January	1,216	2,974
Operating activities:		
– net profit plus amortization and depreciation	786	568
– revenue from divestments	-18	-6
– change in working capital	95	111
– other changes	48	-82
Net cash generated by operating activities	911	591
Investing activities:		
– capital expenditure	-334	-1,902
– divestments	28	17
– other changes	-2	-4
Net cash used in investing activities	-308	-1,889
Dividend	-194	187
Net cash used in financing activities	-367	-384
Effects of changes in consolidation and exchange differences	-7	111
<b>Cash at 31 December</b>	<b>1,251</b>	<b>1,216</b>

Net debt stood at 7% of group equity plus net debt at the end of 2004.

#### BALANCE SHEET PROFILE

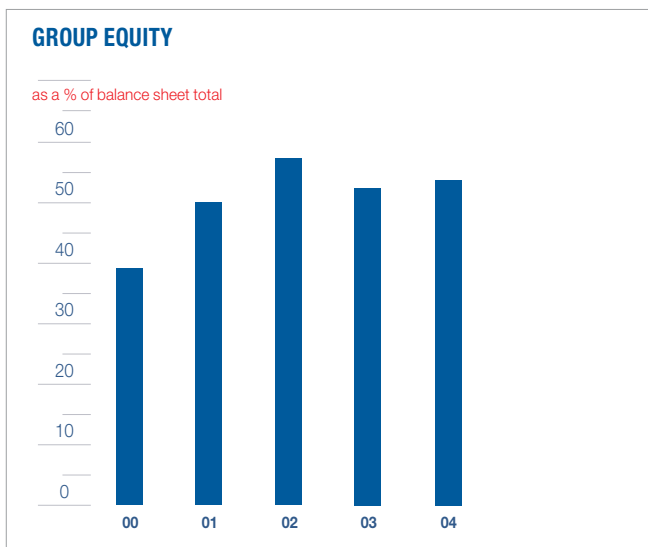
as %	before final dividend	
	2004	2003
intangible and tangible fixed assets	47	49
financial fixed assets	5	4
current assets	48	47
<b>total assets</b>	<b>100</b>	<b>100</b>
group equity	54	53
provisions	10	10
long-term liabilities	12	16
current liabilities	24	21
<b>total group equity and liabilities</b>	<b>100</b>	<b>100</b>

The balance sheet total (total assets) decreased in 2004 and amounted to € 8.9 billion on 31 December (2003: € 9.4 billion). Group equity decreased by € 127 million compared with the situation at the end of 2003; this was due mainly to the payment of dividend, the repurchase of cumulative preference shares C and exchange differences relating to non-euro-denominated holdings. Group equity as a percentage of total assets increased from 53% at the end of 2003 to 54% at the end of 2004. The current ratio (current assets divided by current liabilities) decreased from 2.18 in 2003 to 1.95 in 2004.



Pharmaceuticals

Capital expenditure on tangible and intangible fixed assets was 36% below the level of amortization and depreciation. The total of intangible and tangible fixed assets was € 415 million (9%) lower than in 2003. The working capital was € 185 million lower than in 2003, due in particular to lower inventories and accounts receivable at higher sales volumes. Cash increased slightly and amounted to € 1,251 million.



#### DIVIDEND

The dividend that the company pays its shareholders depends on business conditions, the company's financial performance and other relevant factors. DSM aims to provide a stable and, if possible, rising dividend.

In accordance with earlier announcements, at the beginning of 2005 DSM reviewed its cash flow definition as a basis for calculating the dividend, as the implementation of IFRS entails changes in the presentation of the statement of income. This review has led to the conclusion that the cash flow from ordinary activities remains the reference parameter for the dividend.

The dividend is based on a percentage of cash flow. Barring unforeseen circumstances, this percentage lies within a range of 16 to 20% of the net profit from ordinary activities excluding exceptional items (minus the dividend payable to holders of cumulative preference shares) plus depreciation and amortization. Since depreciation and amortization form a large and stable component of cash flow, the dividend, too, is relatively predictable.

The proposed dividend on ordinary shares for the year 2004 amounts to € 1.75 per share. This corresponds to about 19% of the cash flow (net profit from ordinary activities (€ 359 million) plus depreciation and amortization (€ 524 million) minus the dividend payable to holders of cumulative preference shares (€ 22 million)). An interim dividend of € 0.58 per ordinary share having been paid in August 2004, the final dividend will amount to € 1.17 per ordinary share.

The dividend will be paid out in cash and will be made payable on 22 April 2005.

#### OUTLOOK FOR 2005

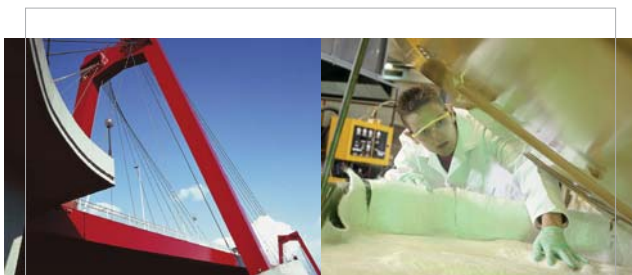
The global economic outlook for 2005 does not seem to be unfavourable. Although economic growth is expected to be lower than in 2004, the demand/supply balance in most of DSM's end markets seems to remain robust.

However, for European producers a significant negative influence can come from a possible further weakening of the US dollar against the euro in 2005. On top of that, volatility in raw material prices and disruptive geopolitical events remain potential risks to the chemical industry's trading conditions.

If this year's business environment turns out to be in line with 2004 conditions, which does not seem unlikely at present, the outlook for DSM in 2005 is certainly favourable. Under such economic circumstances the impact of volume growth and the results of ongoing restructuring programmes, combined with innovation in new products and markets, will lead to improved financial results for DSM.

For the short term DSM expects continued weakness in the pharma business (specifically anti-infectives) and the DSM Fine Chemicals business group within the Life Science Products cluster. In the second half of 2005 DSM will be seeing the impact of the recently announced restructuring plans in these businesses. In other DSM businesses the short-term market outlook is relatively favourable at the moment.

Trading conditions in Q1 2005 seem to be somewhat stronger than in Q1 2004, although the US dollar exchange rate against the euro has decreased further and the development of raw material prices continues to be uncertain. Barring unforeseen circumstances, DSM expects that the operating profit for Q1 2005 will be substantially higher than that for Q1 2004 (which was € 131 million based on IFRS).



Industrial coatings