

Royal DSM N.V.  
Triple P Report 2009

# Life Sciences and Materials Sciences Staying the Course II

Unlimited. **DSM**





# Improving Nutrition – Improving Lives

Worldwide, as many as two billion people live with (hidden) hunger. Half of them go to bed with an empty stomach each night, and the other half suffer from micronutrient deficiency: their diet contains enough calories to survive but fails to provide the crucial vitamins and minerals essential for full mental and physical development and long-term health.

Poor nutrition leads to higher mortality and a greater overall disease burden. It increases the risk of stunted growth in children, leads to poor cognitive and mental development and learning difficulties, and it increases the chances of being overweight in later life. All this means the economic burden of hidden hunger is significant.

As one of the world’s largest manufacturers of micronutrients and vitamins, DSM is committed to helping in the fight against global hidden hunger. In close partnership with the United Nations World Food Programme, the largest humanitarian agency in the world, we develop effective nutrition strategies and solutions targeted at the world’s most vulnerable people. Through this partnership, we were able to help improve the nutritional intake of millions of people in 2009. In January 2010 our CEO Feike Sijbesma and Josette Sheeran, Executive Director of the United Nations World Food Programme, signed an agreement to renew the DSM-WFP partnership by another three years.

*“The World Food Programme has made great progress as a result of its partnership with DSM. The scientific backing that DSM provides for a number of products in our food basket helps us to convince governments to use them in, for example, food crisis situations.”*

**Josette Sheeran**  
Executive Director  
United Nations  
World Food Programme





Mauricio Adade, President Human Nutrition and Health DSM Nutritional Products visiting Namumu Orphanage & Community School close to Siavonga in Zambia



# Summary



The year 2009 was a very challenging one for DSM. Half of our business was heavily impacted by the economic downturn, causing our overall sales and operating profit to be much lower than in the record year 2008. Despite the economic climate, we stayed our strategic course on all fronts. We kept our focus on sustainability because we strongly believe that the quest for sustainability will be the main trend in the coming decades.

In a world that is faced with the challenge of accommodating nine billion people in the coming decades, it will be essential to find solutions to scarcity, security and other constraints in order to maintain stability and prosperity.

In this 2009 Triple P Report we present our sustainability strategy, our stakeholder engagement policy, our policies to make our value chains more sustainable, and our performance in the field of sustainability during the year under review. This report is largely structured along the People, Planet and Profit dimensions, representing the 'triple bottom line' of sustainability, which we are committed to as a company.

Over the years, the focus of our sustainability strategy has extended from the DSM community to the world at large. In the People section in this report we therefore report about what we do for our own employees as well as about what DSM does to improve the lives of people around the world. The Planet part is about how we improve the footprint of our own operations and support our customers in delivering more sustainable solutions. We are also increasingly focusing on sustainability as a source of business opportunities. The Profit part therefore reflects our own financial performance whilst also highlighting how we develop new business models to sustainably deliver profitable solutions to more people.

Where relevant, we indicate how the various topics and developments discussed in this report are linked to four global trends to which our corporate strategy *Vision 2010* responds: Climate and Energy, Health and Wellness, Functionality and Performance and Emerging Economies.

We are somewhat disappointed about the outcome of the Copenhagen Conference on Climate Change in December 2009. Although we do acknowledge that the desire to create more wealth for more people and at the same time protect the climate represents a dilemma, we believe that this dilemma can be resolved and that our industry is part of the solution.

We are proud that in 2009 we were once again No. 1 in the Dow Jones Sustainability Index for the global chemical industry. This is recognition of our continued commitment to sustainability even in a harsh economic climate.

Sustainability is an integral part of our business operations and strategy. Our proposal to the upcoming Annual General Meeting of Shareholders (AGM) for an improved remuneration policy for the Managing Board reflects this. In the proposed policy, approximately half of the Managing Board's variable pay is linked to sustainability topics. In addition, we appointed Sustainability Champions in each of our business groups and in the DSM Innovation Center. Our Supervisory Board installed a dedicated Corporate Social Responsibility Committee in 2009. This, too, reflects the importance we assign to sustainability.

We are pleased to note that at year-end 2009, 91% of our external spend was covered by the DSM Supplier Code of Conduct. This exceeds the 2009 target of 85% and means we have already met our target of achieving a coverage of more than 90% by 2010.

On the People dimension, a highlight of the year was our second Employee Engagement Survey. It showed that our employees had become even more engaged with our company since the first survey of 2007. The outcome of the 2009 survey helped shape the DSM Change Agenda that we started to implement in 2009 to secure the fulfillment of our *Vision 2010* strategy. Our belief in the power of diversity plays an important role in this Change Agenda. Another highlight was the development of a DSM Code of Business Conduct, which is an updated and expanded version of the DSM Values that we published in 2002. Also, our safety performance further improved in 2009.

On the Planet dimension, we can report that we have already realized five of our environmental targets for 2010. Two others are well on track and are expected to be realized and the last two depend on the timely realization of projects. Our energy efficiency per unit of product has substantially improved (by 7%) compared to 2005. The emission of greenhouse gases has decreased by 37% relative to 2005, while the discharge of oxidizable organic compounds in wastewater was further reduced in 2009. A Planet-related highlight in 2009 was our introduction of ECO+ solutions. These solutions are products and services that create more value with less environmental impact. Of the innovations launched in 2009, 78% are ECO+.

On the Profit dimension, we did our utmost to mitigate the effects of the economic downturn. We took various measures to improve cash flow, reduce costs and strengthen our profitability and future competitiveness, whilst maintaining our focus on customers, innovation and sustainability. The Profit chapter includes reports on our investments in sustainability and on how we align sustainability with cost optimization.

This report includes a section on 'what still went wrong'. In the interest of transparency, we are reporting not just successes but also dilemmas and difficulties that we encounter as a company. This transparency is reflected in the GRI A+ status that we achieved for this report for the second year in a row.

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# Message from the Chairman

## Staying the Course



The year 2009 was perhaps one of the most challenging years in DSM's history. We were heavily impacted by the economic downturn that swept across the world.

Although our Life Sciences businesses appeared to be relatively resilient, with Nutrition performing particularly well, the DSM businesses supplying to the automotive, electronics and construction industries (in particular our Materials Sciences businesses and our non-core Base Chemicals and Materials cluster) suffered badly, especially in the first half of the year. Despite a recovery in the second half, our overall sales and operating profit were much lower than in the record year 2008.

To remain competitive and stay financially healthy amidst the downturn, we had to implement tough measures to manage cash and reduce costs. This involved the announcement of a planned reduction of our global workforce by 1250 positions – a very painful decision to make, but a necessary part of a € 150 – 200 million per annum cost saving program to be fully achieved in 2010. Although our sales and operating profit showed a clear decrease compared to 2008, our actions to focus on cost and cash resulted in very strong cash generation, even stronger than in our record year 2008. Our response to the changing economic circumstances was fast, strong and effective, securing the strength of our company and the interests of our shareholders.

During this challenging year 2009, we focused even more on our markets and customers, and we continued to push our innovation drive to further develop DSM, including our capabilities to provide solutions for a more sustainable world. We thank our customers for their continued trust in our company and we are pleased and ready to serve them. We also made good progress in making our operations even safer and further reducing our eco-footprint. We did not compromise our commitment to meeting the 'triple bottom line' of People, Planet and Profit. We stuck firmly to our values, beliefs and principles. In short, we stayed our strategic course on all fronts, despite the economic climate.

We were rewarded for this in September, when the Dow Jones Sustainability Index (DJSI) once again named DSM the number one in the area of sustainability in the global chemical industry. We are very proud of this result. It is external recognition of the fact that sustainability remains at the heart of our company, especially in current times, when values are put to the test. In this light, we are working on long-term goals in the area of sustainability, as reported on page 11.

We are proud that we were also number 1 in the Carbon Disclosure Leadership Index (CDLI) for the Netherlands published in December by the Carbon Disclosure Project. The index highlights the companies listed at Euronext Amsterdam that display the most professional approach to climate change disclosure.

Our *Vision 2010* strategy is a response to key long-term global issues such as the need for alternative energy sources, the need to address climate change and the need to provide health and a balanced diet for all, against the background of demographic trends, globalization and emerging economies. We are convinced that these issues and trends offer DSM a healthy long-term market perspective, enabling our company to not only flourish but also contribute to the wellbeing of a great many people on our planet – and of the planet itself.

To our regret, the Copenhagen Climate Conference in December 2009 did not deliver against the high expectations that many people (including global leaders) had expressed beforehand. It is however promising that, in the current economic downturn, attention for environmental topics has increased rather than decreased.

Climate protection plans are competing with short-term economic needs (as evidenced by the outcome of the Copenhagen Conference), and the number of hungry people across the globe has risen sharply since the onset of the downturn. We must not allow this to continue. We can be sure that these global issues will be staring us in the face long after the economic downturn has gone. That is why we at DSM have continued to contribute to the solution of these issues. For example, in 2009 we developed new key nutritional innovations together with the United Nations World Food Programme, innovations that will help save millions of lives. We also continued to develop solutions to reduce greenhouse-gas emissions and solutions promoting a sustainable bio-based economy – not just to reduce our own eco-footprint but also to enable our customers to reduce their eco-footprint.

One of the great dilemmas of our time is how economic growth and the desire to create wealth and wellbeing for all people worldwide can be reconciled with the need for climate protection. We believe there is a way out of this dilemma, and that our industry is part of the solution. A report on the chemical industry's potential for climate-change abatement that was published in 2009 by the International Council of Chemical Associations strengthens our conviction that we are steering the right course in developing solutions which, besides their other benefits, help protect the climate.



Members of the DSM Managing Board and the Corporate Secretariat, from left to right: Stephan Tanda, Pierre Bruls, Femke Weijtens, Nico Gerardu, Rolf-Dieter Schwalb and Feike Sijbesma

In 2009 we appointed Sustainability Champions in all of our business groups and in the DSM Innovation Center. In doing so, we integrated and strengthened the functional approach to sustainability, which focuses on sustainability performance, with a business approach focusing on business opportunities coming from sustainable development. Another first this year is that we have asked our Supervisory Board to give its approval for our Triple P Report. This is a logical consequence of the fact that our Supervisory Board established a dedicated Corporate Social Responsibility Committee in 2009. This reflects the importance we assign to sustainability and the fact that sustainability is an integral part of our business operations and strategy. Our sustainability focus is also reflected in the new remuneration system that our Supervisory Board is proposing to the Annual General Meeting of Shareholders, which embodies a balanced approach regarding the interests of different stakeholders, short-term and long-term goals and financial and other value creating measures, including measures linked to sustainability.

In the coming period we will devote our energies to addressing areas for further improvement. For example, the DJSI report showed that although our eco-efficiency had improved well compared to 2008, we can improve still further on this topic. In the field of occupational safety and health we had also improved but were still a little behind the best-in-class score. On page 66 we describe where we can still improve in the area of SHE. Other points for improvement according to DJSI are customer relationship management, human capital development and codes of conduct and compliance. In this report we discuss all our follow-up actions in these areas.

In order to be even better able to fulfill our strategy of meeting key global needs, we are currently addressing our culture via

a corporate Change Agenda, which is supported by the outcome of our latest (March 2009) Employee Engagement Survey. The Change Agenda focuses on three improvement areas: external orientation (linked to innovation), stronger accountability for performance (high-performance attitude), and more inspirational leadership to manage our company's transition. These elements are based on our shared values and our joint belief in sustainability and the added value of diversity.

Our achievements over the years in the fields of sustainability, emerging economies and innovation are in no small part due to the dedication of Jan Zuidam, our Deputy Chairman, who retired on 1 January 2010. I would like to thank him for his contribution and for the leadership he showed during his 36-year career at DSM, of which he served 12 years as Managing Board member. I have taken over his role as sustainability champion on the DSM Managing Board.

We are proud that the transparency of our reporting on sustainability has once again been recognized, as is evidenced by our achievement of GRI A+ status for this 2009 report. Our continued success will to a very large extent depend on the support of our employees, in whom we have great trust. We have collectively shown over the years that we are capable of delivering great results and that we are fully engaged with our company. I would like to thank all employees in particular for the way they helped DSM stay the course and successfully steer through the challenges of 2009, thus paving the way for our agenda for the future.

Feike Sijbesma,  
CEO/Chairman of the Managing Board  
feike.sijbesma@dsm.com



# Key figures 2009

	2009	2008
<b>People</b>		
Number of employees (year-end)	22,738	23,539
Number of employees by region		
Europe	14,255	14,441
- the Netherlands	7,331	7,400
- Rest of Europe	6,924	7,041
Asia-Pacific	4,415	4,865
- China	3,098	3,557
- Rest of Asia-Pacific	1,317	1,308
North America	2,764	2,907
Rest of the world	1,304	1,326
Female/male ratio	24/76	23/77
Total employee benefits costs (in € million), continuing operations	1,527	1,461
Frequency Index of recordable accidents (per 100 employees; DSM and contractors)	0.56	0.72
<b>Planet</b>		
Energy use (in PetaJoules)	63	72
Greenhouse-gas emissions in CO <sub>2</sub> equivalents (x million tons)	6.7	7.4
Emission of volatile organic compounds (x 1000 tons)	7.7	9.5
COD load (chemical oxygen demand) on surface waters (x 1000 tons)	5.5	7.6
Environmental incidents	421	539
Environmental complaints	79	78
<b>Profit (in € million)</b>		
Unless otherwise stated, these key figures represent total DSM		
Net sales, continuing operations	7,732	9,079
Operating profit plus depreciation and amortization (EBITDA), continuing operations	836	1,209
Operating profit (EBIT), continuing operations	370	769
Capital expenditure including acquisitions	467	739
R&D expenditure, continuing operations	393	394
Net profit	337	577
Cash flow (net profit plus amortization and depreciation)	993	1,028
Operating cash flow	1,276	910
Cash Flow Return on Investment (CFROI in %)	6.1	8.7
Return on capital employed (ROCE in %)	7.2	14.4
Net profit per ordinary share before exceptional items (€)	1.44	3.64
Net profit per ordinary share (€)	2.01	3.45
Dividend per ordinary share (€) <sup>1</sup>	1.20	1.20

<sup>1</sup> Subject to the approval of the Annual General meeting of Shareholders

# Our sustainability strategy

## The Core

Our purpose is to create brighter lives for people today and generations to come. This mission is supported by our core value, which is that our activities should contribute to a more sustainable world.

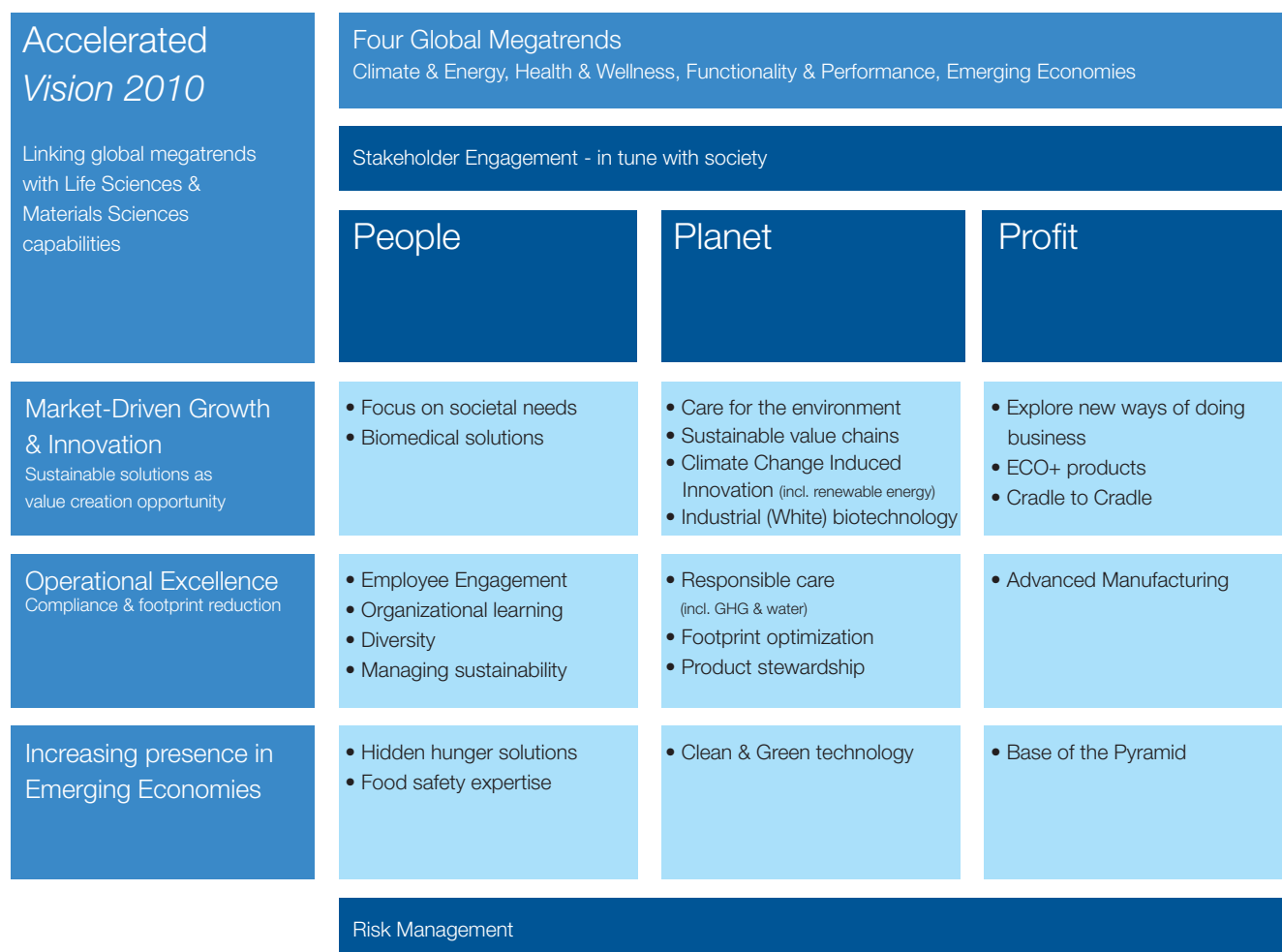
By 'sustainable' we mean meeting the needs of the present without compromising the ability of future generations to meet their own needs. This is the widely accepted definition that the Brundtland Commission published in 1987. Like the Commission, we believe that achieving sustainability means simultaneously pursuing economic prosperity, environmental quality and social equity, in other words, creating value on the three dimensions of People, Planet and Profit simultaneously.

## Why sustainability is important to DSM

The quest for sustainable development will be the main trend in the coming decades. The world will be faced with the challenge of accommodating nine billion people who all want to live healthy and prosperous lives. Against this background, it will be essential to find solutions to scarcity, security and other constraints in order to maintain stability and prosperity.

Societal needs create business opportunities and call for innovations. Public opinion, consumer behavior and government legislation are changing under pressure from different forces, including non-governmental organizations and new media. Large public funds are being made available for climate protection, development aid and food security. New forms of public-private collaboration are being introduced and tested to contribute to resolving global issues.

## Sustainability: Integral part of accelerated *Vision 2010*





 Members of the DSM Sustainability Coordination Group, from left to right: Karin Straus, Robert Claasen, Femke Weijtens, Arie Sonneveld, Jan Zuidam, André van der Elsen, Joan Geerts, Jan Berends and Gerben Algra

## Sustainability: integral part of *Vision 2010*

Our *Vision 2010 – Building on Strengths* strategy builds on our track record of portfolio transformation and it sharpens our focus on Life Sciences and Materials Sciences at an increased pace. This focus is fueled by four global trends that we have labeled Climate and Energy, Health and Wellness, Functionality and Performance and Emerging Economies. We aim to capture the opportunities offered by these trends. Our focus on Life Sciences and Materials Sciences offers attractive growth potential, not just in the two individual fields but also in their combination. The cross-fertilization potential between Life Sciences and Materials Sciences, as captured in our ‘X-factor program’, is high. We are convinced that biotechnology, traditionally associated with Life Sciences, will increasingly play a role in developing new, greener and cleaner biomaterials based on renewable resources, while at the same time materials will increasingly be used in medical applications in the field of Life Sciences.

### More value, less environmental impact

Our aim is to create sustainable growth by creating value via our products and services. At the same time, we aim to reduce our own eco-footprint, that of our customers and that of the value chains in which we operate. To create more value with less environmental impact, we combine:

- **Eco-efficiency** – reducing the negative impact of (running) activities.
- **Eco-effectiveness** – developing and designing products with end-of-life in mind.
- **Sustainable production and consumption** – more functionality using less material.

## Focusing on global megatrends



### Climate and Energy

The effects of climate change and the adverse consequences of the world’s dependency on fossil fuels are becoming increasingly apparent, calling for fundamentally new approaches. Fossil fuels will become scarce (and therefore also more expensive) in the future and alternative, renewable energy sources such as biomass, wind and solar power are needed to respond to the ever-increasing need for energy, which, among other things, is driven by high growth and demand in emerging economies. Also, energy-saving solutions are urgently needed to achieve the desired reduction in emissions.

DSM’s strategy, focusing on solutions for renewable energy, fuel efficiency and improving the eco-footprint throughout the value chain, is a response to these societal trends. We are for example offering and/or developing solutions for second-generation biofuels, coatings that make solar cells more efficient and materials that make cars lighter and therefore more energy-efficient. We are also developing new enzymatic processes that consume much less energy than conventional chemical processes. It is our strong conviction that these trends will persist and regain even more interest and profile when the current economic downturn comes to an end.



# Our sustainability strategy



## Health and Wellness

With a growing and aging world population, interest in health and wellness is on the rise. Diseases such as Alzheimer's and other age-related conditions require new (bio)pharmaceutical treatments. Of growing concern in the Western world is the rapid increase in diseases and disorders induced by modern lifestyles and eating patterns. The rapid increase in cardiovascular disorders and conditions such as diabetes type 2 is to a large extent related to lifestyle and diet. Phenomena such as obesity are increasingly affecting not just the Western world but also emerging economies.

Societies in the world cannot afford to keep trying to address these conditions via medicines alone. Prevention has to gain in importance and efficacy, and food ingredients that help to make our daily diet healthier can and will play a pivotal role in this. DSM, being the global leader in nutritional ingredients, is well positioned to contribute and to make food healthier. DSM is also well positioned to help food companies to reduce the amount of salt in food. Eating too much salt is a significant risk factor in developing high blood pressure. This can increase the risk of heart disease and stroke.

In developing countries DSM is helping to enrich and fortify food with the necessary micronutrients, preventing diseases related to micronutrient deficiencies.

The increased interest in health and wellness also has an impact in Materials Sciences. In a medical context, for example, we see an increasing need for new biomedical materials for spinal disks, joints and catheters. But there are examples in other fields as well. Solvent-free coatings not only have a better environmental footprint, but are also much safer for the workers using them than conventional, solvent-based coatings. And in consumer electronics there is a trend to replace harmful halogen-containing flame retardants with halogen-free ones. We provide solutions in both these areas, and many more. But the biggest source of health issues in the world is probably formed by the twin scourges of under-nutrition and over-nutrition.



*"We believe that we cannot be successful, nor call ourselves successful, in a society that fails."*

**Feike Sijbesma**  
CEO/Chairman of  
the DSM Managing Board



## Functionality and Performance

The development of new product functionalities and heightened performance is driven by the quest for lighter, stronger and more eco-friendly materials, the desire for miniaturization and the trend toward electronification. The search is on for products that show how less is more in communication, mobility and convenience. DSM is creating a new generation of eco-efficient, high-performance products, from resins to medical devices.

### *Green technologies and recycling*

Performance constraints, scarcity issues and pollution are important reasons why the world needs new solutions in the field of materials. Front-running companies see this as an opportunity to develop green technologies and Cradle-to-Cradle recycling solutions.

### *Replacing materials*

New materials are needed to support new functionalities such as providing more broadband capacity, increased safety or lighter weight with the same performance. In automotive, plastics and resins are increasingly used to replace metal, reducing weight, fuel consumption and emissions. In light of the climate debate on emission reduction, governments are tightening emission legislation and are increasingly stimulating the purchase and use of low-emission and/or electric cars. The new materials enable car manufacturers to meet new customer and legal requirements, for example with regard to flame retardance and coloring.

The limited availability and the environmental impact of fossil-based raw materials create a need for new and sustainable raw materials. EcoPaXX™, DSM's new high-performance bio-based polymer, is now in its market introduction phase.



## Emerging Economies

The global trends that DSM has identified and which form the basis of the *Vision 2010* strategy are also very visible in China and other emerging economies. Economic growth in China started to recover as early as the second quarter of 2009 after a brief period of lower growth at the end of 2008 and the beginning of 2009. Economic growth in India in 2009 was also impressive. The current economic downturn has made it even more clear how important the emerging markets are for future economic growth. That is precisely why we have built up positions in emerging markets like China and India.



A cross-functional team from Marketing, Business Support and Finance at DSM Nutritional Products in Kaiseraugst, Switzerland  
From left to right: Mauricio Adade, Xavier Pollono, Jürg Rohner, Emmanuelle Renz, Helena Zhang and Thomas Bernsmeier

In China, climate change and the adverse effects of dependency on fossil fuels are high on the agenda of policy makers. The change in lifestyle of the middle classes and the younger generation will increase demand for food and bio-ingredients. The expected substantial rise in the number of Chinese citizens older than 65 years, especially in the next two decades, will drive demand for pharmaceutical products and biomedical materials. With increasing prosperity, demand for new, better, high-performing materials that contribute to new functionalities in for example connectivity continues to rise. Against this background, DSM is very well positioned in China. Approximately 32% of our total sales in 2009 were generated in the emerging economies.

## Strategic drivers

The main building blocks of our accelerated *Vision 2010* transformation, announced in September 2007, include reshaping our portfolio at an increased pace, setting ambitious new targets, taking a number of measures related to our stakeholders and reinforcing our Triple P (People, Planet, Profit) policy. At the same time we continue to see market-driven growth and innovation, an increased presence in emerging economies and operational excellence as our key strategic drivers.

These drivers are an integral part of our overall sustainability framework, for the following reasons:

- The 'market' as defined by the global trends that we have identified drives our innovation and technology development, in search of efficient and effective solutions in the areas of health, nutrition and materials performance.
- Operational Excellence is about aligning cost optimization with sustainability by reducing our eco-footprint. We do this by minimizing our manufacturing plants' water and energy usage, waste volumes and emissions and by getting the most out of our resources in general.
- By expanding our presence in the emerging economies, we share in and contribute to the economic growth of the regions concerned. At the same time, we address the challenges of pollution and resource constraints (including water depletion) in these regions by using clean and green technology in our local manufacturing plants – plants that have to comply with the same high safety, health and environmental standards that we apply in the rest of the world.

# Our sustainability strategy

## Vision 2010 targets

The targets of the accelerated *Vision 2010* program are summarized in the table below.

Vision 2010 targets		
	Actual 2009	Target 2010
Organic sales growth	2% <sup>1</sup>	> 5% per year on average
EBITDA / net sales margin per cluster		
- Nutrition	23%	>18%
- Pharma	13%	>19%
- Performance Materials	10%	>17%
- Polymer Intermediates	4%	>13% <sup>2</sup>
Growth from innovation by 2010	€ 810 million	€ 1 billion
Sales in China by 2010	USD 1.2 billion	USD 1.5 billion
CFROI	6.1%	WACC (7.5%) + 100 basis points
Sustainability	all on track	
- Retaining our top position in important sustainability rankings		
- Achieving leadership in industrial (white) biotechnology		
- Continuously improving our eco-footprint		
- Increasing the diversity of our workforce		
- Reducing our energy usage per unit of product by 8% over the period 2006-2010		
Total shareholder return	195% vs. 161% for peer group	Above peer group average <sup>3</sup>
<sup>1</sup> Average over the period 2006-2009. Organic sales development in 2009: -16%; average over the period 2006-2008: +7%.		
<sup>2</sup> On average over the cycle		
<sup>3</sup> This peer group consists of AkzoNobel, BASF, Clariant, Danisco, DuPont, EMS Chemie Holding, Kerry, Lanxess, Lonza Group, Novozymes, Rhodia and Solvay		

## Vision 2010 targets — progress in 2009

Although the *Vision 2010* targets were defined and set in a period of generally favorable global economic conditions we have deliberately left them unchanged and have chosen to report against these goals. They were set against the background of an assumed economic scenario, including an average annual GDP growth rate of 3.0% for the United States and 2.5% for the European Union.

It is clear that the economic downturn stands in the way of achieving all of these targets, although – barring unforeseen developments – the objectives with regard to the EBITDA/net sales target of the Nutrition cluster and the innovation sales target of € 1 billion and most of the sustainability targets are expected to be met. We expect to come close to the USD 1.5 billion sales target for China.

We are active with a broad array of programs to combat the negative effects of the economic downturn, varying from improving cost efficiencies, stronger cash management and net debt reduction to exploiting current and new business opportunities and exploring the cross-fertilization of Life Sciences and Materials Sciences. Nevertheless, achieving all or most of the *Vision 2010* targets will require short-term economic recovery to a material degree in various parts of the world.

Despite the significant deterioration of market conditions in half of our businesses since the end of 2008, we are convinced we have chosen the right strategy by opting for an accelerated transformation toward a Life Sciences and Materials Sciences company. We will therefore continue this strategy and thus increase our focus on Life Sciences and Materials Sciences. The activities that do not fit this focus have been carved out and will be sold or partnered. Our aim is to complete these actions by the end of 2010. Although the current economic climate does not favor a swift execution of business disposals, we managed to accomplish major portfolio changes in 2009. The most important ones were the sale of our urea-licensing business (Stamicarbon B.V.) to Maire Tecnimont S.p.A. (Italy) and the sale of our energy assets (DSM Energie Holding B.V.) to TAQA Abu Dhabi National Energy Company PJSC. We also made several acquisitions in 2009. For details see our 2009 Annual Report.

For a detailed overview of our progress toward the *Vision 2010* targets relating to total shareholder return, increased presence in the emerging economies, market-driven growth and innovation, sales in China and Operational Excellence, see our 2009 Annual Report. For details about our progress towards the sustainability targets in 2009, see the People, Planet and Profit chapters in this Triple P report.

Five out of our nine environmental targets for 2010 have already been realized. Two others (energy efficiency and emission of NO<sub>2</sub>) are well on track and are expected to be realized. The realization of the targets regarding emissions of VOC and SO<sub>2</sub> is not yet certain and will depend on the timely realization of several projects.

### Unique cross-fertilization

We believe that the cross-fertilization between Life Sciences and Materials Sciences is an endless source of sustainable solutions. That is why we connect our competences in both fields to create answers to global sustainability challenges. Our X-factor program is an initiative that aims first of all to rapidly grow DSM's current business at the interface between Life Sciences and Materials Sciences and secondly to identify and incubate new potential business areas at this interface.





 Marian Hutten, seated, Bookkeeping Administrator, and Richard Olree, Credit and Cash Manager, DSM NeoResins+ in Waalwijk, the Netherlands

### No. 1 in 2009 Dow Jones Sustainability Index

Launched in 1999, the Dow Jones Sustainability Indices (DJSI) are the most important global indices tracking the performance of the leading sustainability-driven companies worldwide. They provide asset managers with reliable and objective benchmarks to manage sustainability portfolios. DSM has been included in the top rank of the chemical sector of the DJSI since 2003 and was ranked number one for three years in a row from 2004 until 2006. In 2009 we were once again named the sustainability leader of the world's chemical sector. Our DJSI score improved from 85 (2007) via 86 (2008) to 89 (2009) points out of 100.

According to the Index, our main strengths lie in the following categories: Innovation Management, Climate Strategy, Product Stewardship, Talent Attraction and Retention, Corporate Citizenship & Philanthropy, Environmental Policy & Management System and Standards for Suppliers. The main points for improvement mentioned are customer relationship management, human capital development and codes of conduct and compliance. It was noted that we can improve on eco-efficiency, where we are still lagging 11% behind the best-in-class score. In the field of occupational safety and health we are 9% behind the best-in-class score.

*Our response is as follows:*

- With regard to customer relationship management, we have taken measures to ensure that all business units carry out customer satisfaction surveys at least once a year. The DSM Marketing Office will consolidate the outcome of the surveys and generate a company overview. The results will be incorporated in external communication plans for the businesses.

The 2010 customer satisfaction surveys will be used as a baseline and in Q4 2010 we will define targets per business unit, which we will also consolidate into a company target.

- With regard to human capital development, we have been assessing best practices at knowledge-intensive companies and peer companies. The assessments are to be completed early 2010.
- We developed a DSM Code of Business Conduct (an updated version of our DSM Values) in 2009 and a program is under development to launch the Code in 2010 and ensure worldwide implementation of its principles.

### We are currently working on new sustainability targets for the years to 2020 regarding:

- continued reduction of greenhouse-gas emissions;
- further improvement of our energy efficiency;
- reduction of greenhouse-gas emissions in our value chains;
- further reduction of water consumption;
- ECO+ innovation and business development;
- revenue growth from new business models;
- workforce diversity, talent attraction and development.

In order to set concrete targets and monitor progress toward some of these targets, we are in the process of establishing product eco-footprints for the majority of our products and their impact in our most relevant value chains by the end of 2010. As the timeframe of *Vision 2010* will end in 2010, we will present the results of a new/updated Corporate Strategy Dialogue in September 2010 ahead of our annual Capital Markets Day. This updated strategy will include detailed targets in the area of sustainability.

# Managing Sustainability

## Organization

Sustainability has the attention of the entire Managing Board, with Feike Sijbesma, Chairman of the Managing Board, as the primary focal point. Sustainability at DSM is organized in a network supported by the Corporate Sustainability Department, which reports directly to the Chairman.

Furthermore, members of the Managing Board chair different sustainability-related activities, such as the activities relating to our partnership with the World Food Programme (Stephan Tanda and Feike Sijbesma), Diversity (Feike Sijbesma), Base of the Pyramid (Jan Zuidam until 1 January 2010; succeeded by Feike Sijbesma), and SHE (Jan Zuidam until 1 January 2010; succeeded by Nico Gerardu).

DSM has dedicated departments for Corporate Sustainability and Corporate Operations and Responsible Care. The latter is responsible for all corporate SHE issues (Safety, Health and Environment). Line management is supported by sustainability and SHE managers at business group level. The DSM SHE Council is composed of all business group SHE managers. It is responsible for developing practices and communications regarding SHE issues.

Our DSM Innovation Center includes a Business Incubator focusing on climate-change induced innovation and Cradle-to-Cradle (C2C) solutions. Our LCA Competence Center ensures a standardized approach to Life Cycle Assessments across our company (see page 38).

In 2009 we appointed Sustainability Champions in all of our business groups and in the DSM Innovation Center to further integrate and strengthen our functional sustainability expertise (with a focus on sustainability performance) with a business approach (where the focus is on business opportunities coming from sustainable development).

The Sustainability Champions' role includes the facilitation of business group sustainability strategies and sustainability competences as well as product eco-footprinting and related marketing and business activities.

The DSM Supervisory Board installed a Corporate Social Responsibility (CSR) Committee in 2009, with Louise Gunning-Schepers as chairperson. The Committee, initially consisting of all members of the Supervisory Board, supervises the Managing Board with respect to formulating, developing, implementing, monitoring and reporting on DSM's social and environmental policies. The Supervisory Board decided that DSM's Triple P Report will from now on (starting with the 2009 report) be submitted for approval to the Supervisory Board. The DSM Managing Board fully endorses the Supervisory Board's initiative to create this new CSR Committee.

## Processes

Sustainability is an integral part of key work processes at DSM. To begin with, it is an integral part of the strategy development process at corporate level (Corporate Strategy Dialogue). Sustainability is also an integral part of our innovation and business development processes. We have in place a standardized Project Management Process, a Product Launch platform and a program (Excellerate) for price and profitability analysis, which together form a toolkit enabling us to leverage the sustainability potential of our businesses. This leveraging power and sustainability potential are illustrated by the fact that, in 2009, 78% of our innovations could be characterized as ECO+, which means they add more value than mainstream products or processes while having a smaller environmental footprint.

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*“Cross-fertilization between Life Sciences and Materials Sciences is an endless source of business opportunities.”*

**Jos Put**  
Chief Technology Officer DSM





 Reinhard Karge, R&D Center Director DSM China and Han Ling, Associate Scientist at the DSM China Campus in Shanghai

## Systems

### *Remuneration policy*

DSM has redesigned its remuneration policy for its Managing Board. The redesign was undertaken to create a sharper focus on short-term and long-term value creation for all stakeholders and to improve transparency and simplicity. It encompasses the introduction of variable income components based on performance criteria to be met over a longer period of time. In the proposed policy, approximately half of the Managing Board's variable pay is linked to sustainability topics.

The revised remuneration proposal better reflects and supports our acclaimed Triple P strategy, focusing on medium and long-term value creation for our stakeholders. It is supportive to our license to operate and growth in the future. In addition, the proposal includes changes to further comply with the amended Dutch corporate governance code ('Frijns Code').

DSM, with a top position in the Dow Jones Sustainability Index over the past consecutive years, is a typical People, Planet, Profit company. We strive for a top sustainability performance, derived from a sound balance between economic, social and environmental interests, in line with our corporate Values (to be replaced by the DSM Code of Business Conduct in 2010).

The revised remuneration policy reflects a sound balance between the interests of our main stakeholders as well as between our short-term and long-term strategy.

The Managing Board's new remuneration package was set up to balance short-term operational performance with the long-term objective of creating sustainable value for the company and its stakeholders.

We recognize that a remuneration policy should generate an internally and externally acceptable level of compensation as part of the sustainable development of the company. With the redesign of the remuneration policy we also intend to contribute to a change in the landscape of Top Executive remuneration. We will evaluate the revised remuneration policy over time and further improve it if and when necessary. See our 2009 Annual Report for more detailed information on the remuneration proposal.

### *Strategic objectives and progress reporting*

Sustainability is an integral part of our *Vision 2010* strategy and objectives. At corporate level, our progress against sustainability targets is reported on a quarterly basis. In 2010 we will define new strategic objectives and targets (including sustainability objectives and targets) and key performance indicators.

### *Corporate Operational Audit*

To 'close the loop' our Corporate Operational Audit department carries out sustainability audits as a part of our Corporate Risk Management activities. These audits, which may be unannounced, cover our integrated approach to sustainability, our sustainability management system and the Triple P reporting process.



# Focus on Stakeholders

## Engaging with stakeholders

### We engage with key stakeholders in order to:

- deepen our insights into societal and customer trends, drivers and needs;
- achieve advocacy goals in a focused manner by influencing the direction of the public debate with regard to key DSM topics together with key stakeholders;
- resolve issues ('get the job done'), receive endorsement and build trust (through public-private partnerships and new business models); and especially to
- be able to serve them better.

We engage with our relevant key stakeholder groups: shareholders, customers, suppliers, local communities, industry peers, governments, NGOs (non-governmental organizations), special interest groups and, of course, our own employees.

Stakeholder engagement helps give direction to our strategy. One of the reasons why our accelerated *Vision 2010* strategy addresses four global megatrends (Climate and Energy, Health and Wellness, Functionality and Performance and

Emerging Economies, see also pages 7 and 8) is that issue and stakeholder mapping exercises done in recent years, especially the issue analysis that we conducted with SustainAbility Ltd. in 2007, have shown these four trends to be material overarching themes for DSM in terms of both societal and business impact. Our stakeholder engagements in 2009 confirmed this.

During 2009 we continued to develop our Stakeholder Engagement Roadmap. This identifies the strengths and weaknesses in our current network of stakeholder relationships and provides us with a structured agenda for intensifying our dialogue with key groups. Within the framework of the four global trends, we are identifying and strengthening contacts with selected thought leaders, policy makers, business partners, NGOs and other influential parties. We have been actively engaged in dialogues that address our stakeholders' needs concerning:

- **Climate change.** DSM believes industry can and must play a positive role in securing economic growth while simultaneously reducing the total carbon footprint.



Representatives of the DSM Managing Board, DSM Next, Sustainability Champions, and the DSM Sustainability Department at the Leaders For Nature Conference in Amsterdam, the Netherlands. Fokko Wientjes, Director Sustainable Development DSM on the far right



 The Annual Meeting of the Clinton Global Initiative in New York, 25 September 2009 with DSM Managing Board member Stephan Tanda on the far right

- **Hidden hunger.** Together with the World Food Programme and other partners, we are making an advocacy effort on a global level to generate greater awareness of the importance of improved nutrition.
- **Food safety and quality.** As a leading nutritional ingredients supplier, we feel it is our duty to address society's growing concern about health issues related to food quality by developing programs offering exemplary standards of product quality, traceability and reliability.
- **Industrial (White) biotechnology.** We continue to invest in industrial (white) biotechnology, which can create alternatives to the fossil-fuel based economy.
- **Sustainable biomass.** Our growing involvement in industrial (white) biotechnology is attended by the need to secure a sustainable raw-material base that does not compete with the food supply chain, and we are seeking further engagements in this area. Our activities must take into account both biodiversity and possible societal effects.
- **Water management.** In 2009, our CEO Feike Sijbesma signed the United Nations Global Compact Water Mandate.
- **Community outreach.** As part of our License to Operate, we encourage local DSM organizations to actively support their local communities.
- **Careers and employment.** We carry out regular Employee Engagement Surveys to gauge the needs and concerns of our employees worldwide as well as their opinions about all aspects of our operations.
- **Sustainable value chains.** We are engaged in an ongoing dialogue with suppliers, customers and industry peers to reach consensus about how we can jointly make the value chains in which we operate more sustainable.

## Associations and partnerships

We are involved with the World Business Council for Sustainable Development, the China Business Council for Sustainable Development, the United Nations World Food Programme, the World Economic Forum, BioVision, The United Nations Global Compact and Leaders for Nature, an initiative of IUCN (the International Union for the Conservation of Nature), as well as a number of industry associations such as ICCA (the International Council of Chemical Associations), ACC (the American Chemistry Council), CEFIC (the European Chemical Industry Council), VNCI (the Dutch Association for the Chemical Industry), EuropaBio and the American Biotechnology Industry Organization.

In 2009 we organized two round tables (in London and Washington) in which the World Food Programme (WFP) participated, together with representatives from NGOs, the science community and the media. On the occasion of the Micronutrient Forum 2009 in Beijing, DSM initiated and signed a private-sector declaration calling for action to fight hidden hunger. We took a further step in the fight against hidden hunger by participating in the Amsterdam Initiative on Malnutrition (AIM), a Dutch public-private partnership launched in May 2009 with the aim of eliminating malnutrition for 100 million people in Africa by 2015 (see also page 52).

On 25 September 2009 at the Annual Meeting of the Clinton Global Initiative in New York, Bill Clinton announced 'Project Laser Beam', a groundbreaking program to radically reduce malnutrition worldwide.

# Focus on Stakeholders

The program will combine the know-how of the World Food Programme with the technologies and business expertise of DSM and other partners such as GAIN, Heinz, Kraft Foods and Unilever. Finally, a number of DSM employees supported WFP in developing and conducting field trials of nutritional innovations that we co-developed with WFP.

## Donations

Our Values create an agenda for making a positive contribution not only to the world of business but also to society as a whole. DSM has a clear policy with regard to Corporate Citizenship:

- As part of our License to Operate we encourage local initiatives (such as our Torch program) in support of the communities in which our sites are located.
- We support a few targeted large-scale initiatives, drawing on DSM expertise.
- DSM clearly rules out any payments or donations in kind to political parties or their institutions, agencies or representatives.

DSM donated and/or made available almost € 4 million to a wide range of initiatives in 2009. The overall sum was somewhat lower than in 2008 due to the economic downturn, but we upheld our essential long-term commitments such as those to the United Nations World Food Programme and the Dutch Olympic Committee (NOC\*NSF).

We also continued our humanitarian initiative SIGHT AND LIFE and made charitable donations to a number of local causes. Many of our contributions draw on the expertise of our micronutrient scientists or materials specialists.

## Position papers

As part of our transparent reporting, we have posted DSM position papers on CO<sub>2</sub> emissions trading, modern biotechnology, industrial (white) biotechnology and nanotechnologies, as well as key messages on the European Emissions Trading System (ETS) and the European Industrial Sugar Regulation, on our website.



 From left to right: Alexandra Teleki, Scientist, Claudia Inauen, Senior Technician and Aniko Szepes, Scientist, in the Application Lab Beverages in Kaiseraugst, Switzerland



# Global Supplier Sustainability Program

DSM's supplier sustainability program covers both global suppliers, who account for 60% of our spend, and local suppliers. The program comprises two main elements: compliance and reduction of the eco-footprint.

## Compliance

Suppliers are requested to sign the DSM Supplier Code of Conduct, which is aligned with the DSM Values (to be replaced by the DSM Code of Business Conduct in 2010). The code prescribes our Triple P minimum requirements. Based on risk potential and size, selected suppliers are requested to complete a self-assessment questionnaire. Some of the selected suppliers are audited to verify the status of their sustainability profile or to develop joint improvement programs where appropriate.

At year-end 2009, 91% of our external spend was covered by the DSM Supplier Code of Conduct, exceeding the 2009 target of 85% and meeting our target of achieving >90% coverage by 2010. The other targets of the program, being 40 supplier self-assessment questionnaires and 20 supplier sustainability audits, were also more than achieved: 51 questionnaires were received and 22 audits were conducted in 2009.

Based on the results no contracts had to be terminated and no suppliers were disqualified. This good performance was the result of the collaboration between suppliers and DSM in resolving any major non-conformities that were identified. The newly developed supplier sustainability audit tool was very helpful in this respect. Besides revealing areas of non-conformity, it enables us to define actions, problem owners and deadlines to get non-conformities resolved quickly via a jointly defined improvement program. Within the program we provide the suppliers with assistance or, if needed, training to achieve the desired level of compliance.

## Reduction of eco-footprint

In our efforts to reduce the value-chain eco-footprint we work closely with our suppliers. In 2009 we observed the first successful market introductions of bio-based raw materials within our Materials Sciences cluster. Apart from greenhouse-gas reduction at our suppliers we were pleased to observe that these bio-based raw materials also reduced the use of hazardous chemicals like styrene. In addition, the use of phthalic anhydride was reduced within our plants as well as in our customers' applications.

The same considerations apply to our electricity supply. Here, too, we will in cooperation with our suppliers explore the options to further reduce the footprint, for example via higher-efficiency power plants, the use of combined heat and power (CHP) generation and the use of renewable sources. Approximately 7% of our electricity consumption in 2009 was based on the use of renewable energy such as wind, biogas and hydropower and around 30% was based on CHP generation.

# People

## Focusing on societal needs





In this chapter we describe how we work towards greater sustainability in the People field. The People element of our sustainability strategy essentially comprises a focus on societal needs as well as the needs of our employees.

In the last part of the chapter we provide quantitative overviews of our performance in 2009 with respect to key indicators on the People dimension.

We give examples of our activities in 2009 that show our commitment to sustainability by:

- offering products and services that support a healthier, more sustainable and more enjoyable way of life;
- being a responsible and supportive partner to society, for example in humanitarian aid projects;
- continuously reducing the safety and health risks to our employees, the users of our products and the people who live near our sites;
- offering our employees an inspiring working environment in which they can develop themselves to their full potential.

Where appropriate, we use icons to indicate how the stories in this chapter relate to the four megatrends identified in our accelerated *Vision 2010* strategy.





## Highlights

The highlights of 2009 on the People dimension are the following:

- DSM was the first company to endorse the 'Roadmap to End Global Hunger' in July 2009.
- In 2009 DSM reached around 700,000 WFP beneficiaries with improved nutrition through donated servings, and many more through our cooperation with WFP with a focus on improved nutrition.
- The percentage of women in our Executive group increased from 7% in 2008 to 8% in 2009. We also had a high inflow of non-Dutch employees in our professionals group (79%).
- The new career management design stimulating a high-performance culture was fully implemented in 2009.
- Our global internal vacancy system (introduced in 2008) is now fully operational and ensures transparency regarding career opportunities within DSM worldwide.
- In 2009, 86% of our employees responded to the DSM Employee Engagement Survey, an industry record. The results showed a 10% improvement in the level of engagement of our employees compared to 2007.
- We launched the DSM Change Agenda in 2009 to further adapt our culture in order to implement our strategy more successfully and achieve our goals. In the fields of learning and development significant efforts were undertaken to support the roll-out of the DSM Change Agenda.
- The Frequency Index of recordable accidents (DSM employees and contractors) improved from 0.72 in 2008 to 0.56 in 2009.
- In 2009, we converted our entire DSM intranet to a new platform (Microsoft Sharepoint). The DSM intranet is now a global single integrated system that allows employees to share information and ideas more effectively.



### Improving lives

The global trend that we have labeled Health and Wellness is about quality of life in the broadest sense. We believe it is both a moral and a business imperative to address it. This is also in line with our mission of 'creating brighter lives for people today and generations to come'. On the next few pages we describe how we help improve the lives of the vast number of people who suffer from hunger or inadequate nutrition, as well as the hundreds of millions of people in the developed world who suffer from age and lifestyle related medical conditions.

#### New success in fight against hidden hunger

In March 2009 DSM and the United Nations World Food Programme (WFP) announced a new success in their joint fight against hidden hunger. The widespread iron deficiencies in populations of regions like Africa, for example, stunt children's development.

The normal strategy to prevent this would be to fortify the local staple foods with iron. However, the cereal-based staple foods that are common in these regions contain phytic acid, which inhibits iron absorption by the human body. High iron dosing would therefore be needed, but this is dangerous in malaria regions because the malaria parasite thrives on iron. The solution developed by DSM and WFP is to add an enzyme to the staple foods to break down phytic acid so that the body can take up sufficient iron even at low dosing levels.

#### DSM endorses 'Roadmap to End Global Hunger'

In July 2009 DSM was the first company to announce its official endorsement of the 'Roadmap to End Global Hunger', an advocacy initiative laying out a comprehensive strategy for the US government to set the stage for a permanent end to global hunger and poverty. Among other things, the Roadmap calls for increased allocation of resources to address the challenges of hunger and malnutrition and the creation of a White House Office on Global Hunger and Food Security.

DSM is committed to continuing to work in partnership with WFP, governments, trade associations, corporate stakeholders and other private sector actors to facilitate further successful public-private partnerships in finding sustainable solutions to hunger issues.

In 2009 DSM reached around 700,000 WFP beneficiaries with improved nutrition through donated servings and many more through our cooperation with WFP with a focus on nutrition improvement.


#### Food safety standards

In 2008 China was plagued by a scandal over melamine-contaminated milk. Melamine, a compound used in making plastics, had been added to make the amount of protein in watered-down milk appear greater. Though not toxic, melamine can cause kidney stones and renal failure.

The tainted milk killed at least six babies in China and left more than 300,000 others ill. To address this problem, DSM Food Specialties launched Delvotest® MT in March 2009, a breakthrough immunoassay detecting the presence of melamine in milk.

The Delvotest® MT testing kit offers dairy producers a quantitative and sensitive method for melamine screening. The easy-to-use test works through the recognition of melamine by antibodies and requires less than one ml of sample extract to determine the product's safety. The test can moreover be performed in less than an hour for maximum processing efficiency.



 Members of the DSM Biomedical team based in Sittard-Geleen, the Netherlands, with Steve Hartig, President DSM Biomedical in the middle

### New materials help aging society

With healthcare systems around the world struggling to cope with the effects of our aging population, important breakthroughs in a relatively unsung but fast growing area of the chemical industry, biomedical materials, are creating genuine possibilities for health care providers to reduce their treatment costs, while increasing the quality of care and improving quality of life for sufferers. DSM is developing the next generation of biomedical materials which offer the prospect of true interaction between implants and the body, enabling better quality of care with the potential for lower costs.

Established in 2006 as one of DSM's four Emerging Business Area programs, DSM Biomedical has become a leading player in the fast growing market of biomedical materials. Its guiding mission is to provide proprietary materials-based solutions that enable the replacement, repair, enhancement and ultimately the regeneration of tissue and organ function. DSM Biomedical aims to achieve € 100 million in sales by 2012.

We are currently the only company with a presence in the three major market categories of medical coatings, implantable polymers and drug delivery systems.

Our medical coatings are used, for instance, on vascular or urinary catheters to enhance device maneuverability during minimally invasive cardiology and urology procedures.

Our antimicrobial coatings are being increasingly used on catheters with the objective of reducing hospital acquired infections, which can be serious adverse events for patients.

Our implantable polymers play a key role in the development of innovative implantable devices, such as pacemakers, neural stimulation leads and orthopedic implants, which are used to replace or repair damaged tissues and joints and restore functionality.

One of the fastest growing and most dynamic areas of the biomedical materials market in which we are active is that of drug delivery systems. Modern drug delivery systems use smart resorbable implantable 'drug depots' that are designed to deliver medicine accurately to the site of the body that needs it and then release the medicine gradually over time. Delivering drugs this way provides for a more consistent dosage and improves patient compliance with the treatment as repeat drug administrations are needed less often.

Our broad portfolio of biomedical materials is founded upon a wider business strategy that casts the cross-fertilization of life sciences and materials sciences at the epicenter of the chemical company of the future. In much the same way as we use our materials sciences knowledge and life sciences knowledge to create new biomedical materials, we are applying the same approach elsewhere in our business to create new products and processes that are better, greener and cheaper. It is upon this ground stone that we seek to ensure the future of our business and help our customers find new ways of improving theirs.

## Legally required safety studies


As an innovative company, DSM is continuously developing new products. We are required by law to assess the properties and safety profiles of our products. These assessments can necessitate the use of live animals. We only use animals in studies for safety assessment if this is required by regulation and only if no accepted and validated non-animal alternative methods are available.

We are committed to constantly seeking and pursuing opportunities to further improve our performance and to 'reduce, replace and refine' methods in which the use of animals is the only alternative. The examples below illustrate this '3R' approach.

DSM will continue to make reasoned requests to the authorities to waive safety tests with animals in cases where we believe that requirements are excessive and in cases where the information can be provided by other means.

We use state-of-the-art analysis techniques that allow for repeated measurements on fewer animals and the use of non-invasive measurements, such as scanning 'from the outside', similar to MRI scans on humans. We increasingly make use of *in silico* (computer modeling) and *in vitro* techniques (e.g. cell arrays) to identify candidate substances. We conduct in-house projects to develop and promote alternative testing methods. We develop 'early safety' and 'early efficacy' assessments aimed at determining these effects by computer calculations, based on comparison of new compounds to known effects of existing compounds. We also cooperate actively in external networks and with academic partners. Examples are the International Council of Chemical Associations' Long-Range Research Initiative and the joint government-industry initiative European Partnership for Alternatives to Animal testing (EPAA). In recent years we have thus seen a gradual reduction in the number of animals used in labs; we have been able to significantly reduce the number of animals, in some tests by up to 90%. However, we are worried about the increasing need for assessments because of the implementation of REACH, the new European chemicals legislation.



 From left to right: Francis Kuijk and Gaby Montens, Secretaries for the DSM NeoResins+ Global Management Team



Further reduction will require adjustment of legal requirements and the development, validation, dissemination and implementation of new testing methods. We at DSM do not want the safety and efficacy of our products to be compromised. This means that studies involving animals will continue to be necessary in the foreseeable future. However, we believe that our approach is sensible and responsible and we are committed to further reducing, refining and replacing these studies on an ongoing basis.



### Waterborne coatings in China

October 2009 saw the official launch of the Waterborne China Platform (WBCP), a new industry initiative in China led by DSM. The platform, currently chaired by Peter Pui from DSM NeoResins+, brings together a number of leading international and local industry players including Bayer, BASF, Altana and Elementis.

As a joint, industry-wide organization, WBCP is dedicated to accelerating the transition from solvent-borne to waterborne products in the Chinese coatings, adhesives and graphic arts market and will focus on increasing awareness of Volatile Organic Compound (VOC) hazards and sharing best industry practice on waterborne technology.

The initiative underlines DSM's commitment to promoting sustainability in the Chinese coatings, adhesives and graphic arts market. Waterborne products currently account for less than 10% of this market. DSM is also more broadly promoting sustainable resins solutions in China through the DSM Resins Asia Sustainability Award. This Award is annually granted to recognize the Asian manufacturer who played the most significant role in promoting the change towards more sustainable resins systems and/or solutions. In 2009 the award was presented to the China-based Adhesives Technologies division of international specialty materials manufacturer Henkel.

### International labor standards

Respect for People is part of the business principles outlined in the DSM Values (to be replaced by the DSM Code of Business Conduct in 2010) and we support and respect human values as outlined in the United Nations Universal Declaration of Human Rights. Our employees represent about 50 different nationalities and we support the equal treatment of all our employees irrespective of race, nationality, ethnic background, age, religion, gender, sexual orientation or disability. Respect for human rights is also integral to

DSM's sourcing policy and Supplier Code of Conduct.

We utterly reject and condemn any form of forced labor or child labor, whether at our own premises or within our supply chain. This is clearly stated in our DSM Values. We exercise due diligence when making investment decisions with the aim of excluding any relationships or practices which may be in contravention of human rights.

DSM is a Dutch signatory to the United Nations Global Compact. We report on our implementation of these principles within our company on page 67. We also meet all the recommendations made in the OECD Guidelines for Multinational Enterprises. Furthermore, we support the work-related rights defined by the ILO (International Labor Organization) and therefore recognize the International Labor Standards. In countries or companies where employees have third-party representation via a works council or collective bargaining, we respect these relationships and work with these third parties in a mutually respectful manner. In the event of an organizational restructuring that results in the reduction of a significant number of positions, DSM develops and implements either a Social Program (aimed at assisting employees to continue in employment, whether inside or outside the company) or else a Severance Program. We promote employee empowerment and human rights protection and thus seek dialogue with our employees and their representatives (Works Councils, Labor Unions).

### Business Conduct

Our employees are trained in the meaning and application of the DSM Values (to be replaced by the DSM Code of Business Conduct in 2010) and the Managing Board holds management accountable for compliance with these. This training involves, among other things, awareness of potential corruption or fraud or other breaches of the DSM Values. A whistle-blower procedure (DSM Alert) and a consequence management policy are in place to support compliance in this respect. The implementation of the new Code of Business Conduct in 2010 provides us with a vehicle to once again raise awareness of these policies. The DSM Compliance Officer responsible for dealing with violations of the DSM Values reports to the CEO and is invited to report independently once a year to the Supervisory Board. Proven violations can result in immediate discharge. In line with this policy, 73 employees were requested to leave the company during 2009 for breach of the DSM Values or other legal or local company regulations. Compliance with the DSM Values, legal and local regulations is regularly audited. DSM is unaware of any cases of breach of human rights or the use of forced or child labor within its operations in 2009.

## DSM Employee Engagement Survey 2009: invaluable feedback

A fully committed workforce is critical to realizing our ambitious targets and managing the complex demands of the fast-moving global markets in which we operate. Our HR strategy *Passion for People* was therefore formulated in 2007 specifically to help deliver *Vision 2010*. *Passion for People* relates to the concept of employee engagement.

An engaged workforce is critical to DSM in realizing its *Vision 2010* ambitions. Engagement is about creating an inclusive and high-energy working environment, where employees are aligned and energized to contribute to our business success. An engaged workforce delivers a competitive advantage – because engaged employees are highly motivated to give their best every day.

For a company like DSM to take on change successfully, our employees need to understand and be committed to DSM and its strategic goals. From 16 March to 10 April 2009 we conducted our second worldwide Employee Engagement Survey, in 17 languages. Almost 20,000 colleagues in more than 40 countries completed the questionnaire on-line or on paper. This gave us a response rate of 86%, which is an industry record.

### Engagement score

The main element in the survey was the measurement of our company's Engagement Index. This is a combination of four attributes: commitment, pride, advocacy and satisfaction. The results showed a 10% improvement in the level of engagement of our employees compared to the first survey in 2007. We are very proud of this, especially in these economically challenging times.

Taking all responses together, 68% scored favorably on the DSM Engagement Index and 21% scored a neutral response. This means that 89% of our employees are to a greater or lesser degree satisfied working for DSM, and that at least 68% of DSM employees are committed and proud and would recommend DSM as a great place to work. We are within five percentage points from the external engagement benchmark of high-performing companies (73% favorable), which is the league DSM wants to be part of.

### Improvement and follow-up

The survey showed that we had improved in all areas compared to 2007. The items that received the highest scores were 'attention for safety' (82% favorable), 'teamwork' (76% favorable), 'my job' (72% favorable), 'my manager' (68% favorable), 'DSM's commitment to sustainability' (68% favorable) and 'the way we are managing the economic downturn' (67% favorable). This reflects our strong focus on these areas of importance and also demonstrates our corporate values at work.

The survey results for the individual DSM units have been turned into local action plans that are currently being implemented. The third edition of the DSM Employee Engagement Survey will be conducted in 2010.

We want to use the Employee Engagement Survey as our 'GPS for change'. It shows us in what areas we need to further step up our efforts in order to achieve our strategy.

## DSM Change Agenda

In order to be better able to fulfill its strategy of meeting key global needs DSM will need to further adapt its culture. We are addressing this via the DSM Change Agenda. This Agenda is supported by the outcome of the 2009 DSM Employee Engagement Survey. The three main themes of the Change Agenda are:

- stronger external orientation and innovation focus;
- stronger accountability as a performance driver;
- development of inspirational leadership.

All three are based on our key value of sustainability and our joint belief that diversity will contribute to a better-performing company.

### External Orientation and Innovation

DSM has anchored its strategy in key long term trends that drive fundamental societal needs. At the same, the 'clock speed of business' is ever increasing. We are convinced that, in order to be able to rapidly adapt to changing industry and customer requirements, the vast majority of our people need to be fully in tune with the external world, not only anticipating customer needs to drive innovation priorities, but also tracking the state of the art and best practices for key business functions, broadening networks, engaging stakeholder groups, shaping the debate and collaborating more fully with external stakeholders.



 The DSM Corporate HR Management Team, from left to right: Jacoline van Blokland, Vice President Career Development, Paul Jarrell, Executive Vice President Corporate Human Resources, Rein Pikaart, Vice President Executive Compensation and Jackie Cuthbert, Vice President Organization Effectiveness

External orientation is thus not reserved for sales and marketing but is critical for all disciplines.

In 2009 DSM further raised the profile of external orientation across the organization with several initiatives and key decisions. Several business groups implemented pilot programs to significantly strengthen sales effectiveness and sales excellence based on external benchmarks. Furthermore, a number of Customer Relationship Management (CRM) projects were deployed. And finally, in addition to our External Scientific Advisory Board, we have decided to also install External Advisory Boards for our Functional Excellence Programs in Manufacturing and in Sales and Marketing.

As described in this report DSM has, through engagement and active participation in key events around the world, contributed significantly to and helped advance the debate on major issues such as the potential eradication of hidden hunger and the significant opportunities accessible through the practice of industrial (white) biotechnology.

One of the many achievements in this respect was that we won the 2009 Outstanding Corporate Innovator Award from the Product Development and Management Association in recognition of our strategic commitment to Open Innovation. This award is considered one of the world's most important Innovation Awards.

### **Accountability for Performance**

Our work is critical to our customers; our employees take ownership and deliver upon targets established to meet our customers' needs. Our people want to take responsibility for their actions and for the performance of their teams. Successes, individual and collective, are recognized and celebrated. Issues are surfaced and minor problems are viewed as learning opportunities.

Our new career management design was introduced in January 2009. The new design stimulates a high-performance culture, introduces simplified tools and processes, links career management and performance management, gives transparency in career opportunities within DSM, increases global talent visibility and employee engagement and increases ownership and accountability for career development with managers and employees. As part of the career management design, the Performance Development Review (PDR) was introduced. The PDR focuses on five critical behaviors in addition to the results-oriented targets. The behaviors that are assessed and discussed are: Customer and External Focus; Improve, Innovate and Change; Engage People; Drive for Results; and Act Responsibly. The PDR discussion also focuses on individual development plans designed to address learning and development needs.

Clear performance-based remuneration of our people is key in accomplishing the required changes, and the remuneration systems are adjusted to reflect the objectives of external orientation, innovation and accountability.



In addition to the DSM Employee Engagement Survey (organizational progress) and the Performance Development Review (individual progress), metrics have been agreed upon that focus on agreed targets.

## Inspirational Leadership

We recognize the importance of stronger Inspirational Leadership to lead the further transformation of our company. This means the combination of *setting direction* through vision and targets, executed with passion, sense of urgency and decisiveness, with *connecting with people*, via trust, authenticity and humility.

The acceleration of *Vision 2010*, greater external orientation, innovation and accountability for performance require more inspiration from our leaders, who recognize that they must role-model the behaviors that the company is emphasizing. In 2008 we significantly reviewed our approach to learning and development of the Executive and Management population and launched a brand-new DSM Learning

Architecture. This ensures a stronger alignment with our *Vision 2010* strategy and focuses on the key drivers for success.

In 2009, we further invested in leadership development with the launch of Executive Leadership Programs, aimed at our top 300 leaders, as well as three levels of Management Leadership Programs.

All DSM leadership programs focus on developing the DSM behaviors and mindsets at the core of our cultural change.

## Organizational learning

We invest in the knowledge, skills and experience of our employees on an ongoing basis to ensure their long-term employability. We create an atmosphere of candor and stimulate openness and accountability by involving our employees in the development and execution of our business objectives.



DSM Dyneema team in Greenville, North Carolina, USA, from left to right: Paul Watkins, Group Leader - Logistics, Phil Stalls, Logistic Technician, Randy Manning, Logistic Technician and Ron Holla, Project Engineer - Mechanical

We provide our employees with various kinds of learning opportunities, including classroom and virtual courses, training on the job and coaching and mentoring as we believe that personal development and learning will enable sustainable business growth and success.

### DSM Business Academy

The new DSM Learning Architecture is structured in Executive Learning Programs, Management Learning Programs, Functional Excellence Courses and courses open to all employees. It creates a common and coherent concept of learning and program design, facilitates the development of a DSM learning culture and provides enhanced learning for Top and High Potentials.

DSM Business Academy: Shaping a learning culture		
Executive programs	Management programs	Functional programs

The programs have been designed in close cooperation with leading international business schools and are supported by a diverse internal faculty, primarily consisting of DSM's Top Management.

Innovative learning methods such as round-table discussions, business simulations, virtual classrooms, webcasting and team assignments have been integrated into the programs. This enables interactive knowledge sharing and stimulates peer-to-peer networking in the organization.

The year 2009 marked a significant move forward in the implementation of the new DSM Learning Architecture. In total 12 new or redesigned programs were successfully introduced and piloted, establishing a sustainable learning platform that will support the development of our current and future Managers and Executives in 2010 and beyond.

A specific focus has been given to the development of our high performers. The Top Potentials can now be assigned an Internal Coach who supports them and boosts their professional development. The High Potentials can be assigned a Mentor who helps them to navigate in a company environment and provides functional expertise. External Coaches have also been introduced as part of the brand-new learning solution offered to our Top Executives.

In 2009, 899 DSM colleagues (42 different nationalities; 634 male and 265 female) participated in the learning programs of the DSM Business Academy (DBA).

This is a significant decrease compared to 2008. The main reason for this lower number of participants was the economic situation, which demanded a specific focus on cash flow. We believe that the number of participants will be up to the original level again once the economic situation improves.

In addition to the DBA offerings, a vast amount of training on the job and classroom training is offered to our employees at all levels in the organization. The hours of training per employee were maintained at the 2008 level (21 hours on average).

### Collaboration tools

In order to support further organizational learning, DSM is investing in the global roll-out of various collaboration tools to speed up the development toward more effective (online) cooperation and reduce travel and the associated emissions.

- In 2009, we converted our entire DSM intranet to a new platform (Microsoft Sharepoint). The DSM intranet is now a global single integrated system that allows employees to share information and ideas more effectively. It encourages them to work in a more collaborative, cross-functional manner. In 2009, our intranet was visited 5,123 times per day on average.
- In September we held our annual Top Management Conference at five locations across the world simultaneously (Heerlen and Delft in the Netherlands, Switzerland, USA and China). The locations were able to interact in real time with the help of advanced ICT solutions. In addition to being a great opportunity for organizational learning, this meeting format resulted in a reduction in travel-related greenhouse-gas emissions.
- In 2009, a bottom-up DSM enterprise micro-blogging initiative was started via Yammer. Yammer is a tool that enables the intercompany exchange of short, frequent answers to one simple question: "What are you working on?" As employees answer that question, a feed is created in one central location enabling co-workers to discuss ideas, post news, ask questions, and share links. At year-end 2009, nearly 1,500 DSM employees had joined Yammer and were using the platform for sharing ideas and discussions.
- DSM NEXT, the network of early DSM career professionals, decided to organize their annual conference entirely web-based. A total of 231 DSM Next colleagues participated in an 'E-volution event' which required no traveling and brought communication, knowledge sharing and collaboration to the next level via the internet. A great example of an effective 'new way of working'.

## Safety

### Sharing information on safe use of chemicals

Within the scope of REACH (Registration, Evaluation, Authorization and Restriction of Chemicals), the new European legislation on chemicals, we are running a program to share with our peers all available information on the properties and safe use of chemical substances. Before 2018 all substances that DSM produces and imports in the EU have to be registered, including information on the safety of their intended use. This concerns over 600 substances, of which 108 have to be registered by the end of 2010. Although it is a complex process to get all stakeholders (including our customers) aligned, we are well on track. So far, there have been no surprises regarding the safety of DSM substances.

We also actively participate in the Global Product Strategy (GPS), initiated by the International Council of Chemical Associations (ICCA). In this context we have started the development of Product Safety Summaries, the first five of which were published on our website in 2009. The aim of the ICCA initiative is to have a base set of information on all chemical substances available on the internet by 2018.

### Ammonia transport

On 19 March 2009 we signed a covenant with the Dutch government to put an end to large-scale transportation of ammonia by rail between our sites in Sittard-Geleen and IJmuiden. In the past, we had shipped ammonia from Sittard-Geleen to IJmuiden some 200 km away. As part of the covenant, we closed down the fertilizer complex in IJmuiden at the end of 2009 and relocated one of IJmuiden's nitric acid plants to Sittard-Geleen, which means we have largely eliminated the need for ammonia transports through densely populated areas. We have received financial compensation from the government for the closure of the IJmuiden site.

### DSM Frequency Index

DSM has set itself the target of reducing the Frequency Index (FI) for recordable injuries (number of cases per 100 employees per year) by 50% between 2005 and 2010, from 0.95 in 2005 to 0.48 in 2010. This target includes both DSM employees and contractors. In 2009 the Frequency Index for Recordable Cases was 0.56, which is considerably lower than in 2008 (0.72). Three factors are likely to have contributed to this improvement.

First of all, a number of behavior-oriented safety improvement programs were completed in 2009.

Second, we are currently reaping the fruits of the SHE compliance programs that have been running since 2005. Finally, a company-wide program highlighting critical safety practices that was completed in 2009 has resulted in safer working methods across the board and an increase in the amount of attention paid to basic safety issues and risk factors. In 2009, the FI for Lost Workday Cases involving our own employees was 0.14, compared to 0.33 in 2005. This is a reduction of 58%.

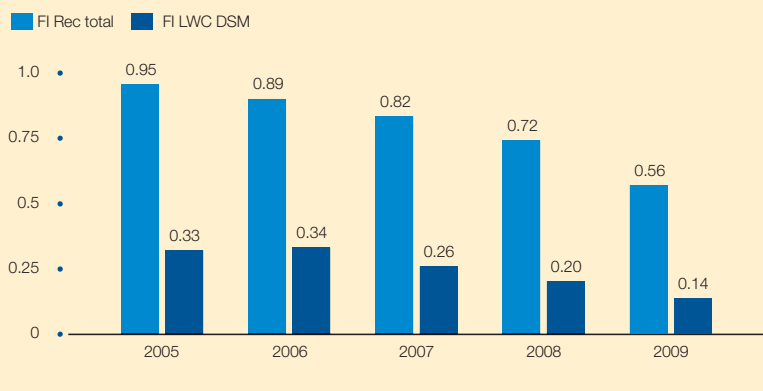
### Learning from major incidents

DSM uses the TRIPOD method to analyze serious incidents and learn lessons from them. TRIPOD offers deep learning opportunities because it reveals what are called 'preconditions' and 'latent failures'. These are hidden flaws (including organizational or management flaws) that play a vital role in causing accidents.

A relatively new analysis method that complements the TRIPOD approach is Human Factors Analysis (HFA). HFA was developed by The Keil Centre (well-known for its Safety Culture Maturity® Model). It is based on the observation that 80% of all accidents are due to human factors. DSM is currently piloting the use of this method in addition to the TRIPOD approach.

In 2009 we decided to investigate very serious near-misses in exactly the same way as fatalities. This will maximize the lessons to be learned from them. To enable the entire DSM organization to learn from incidents occurring anywhere in the company, we have an internal reporting system in place which includes communication to the relevant groups of employees.

### Safety performance





## Employee health management

We believe that organizational and safety performance are directly linked to the health and well-being of our employees. Health management is therefore included in our learning programs. For example, 'Health at Work' forms an integral part of SHE training programs for our employees.

This link between health and organizational performance is reflected in our Global Health Management initiative. This involves a health promotion program for DSM employees including a web-based tool helping employees to assess their health risks and set themselves healthy lifestyle goals. This program is called DSM Vitality Checkpoint. Where DSM Vitality Checkpoint has been introduced, it has been combined with comprehensive health check-ups and individual follow-up on any health issues identified. In 2009, 2,166 DSM employees participated in DSM Vitality Checkpoint. These participants were located in Switzerland, China, Singapore, Brazil, the Netherlands and the USA. In 2010, DSM Vitality Checkpoint will also be available in India and Spain.

Whereas DSM Vitality Checkpoint is a tool for the self-monitoring of health by employees, the DSM Personalized Nutrition System (DPNS), which was launched in 2008, creates possibilities for active, self-managed change. DPNS is a scientifically validated nutritional management system that attempts to achieve long-term sustainable improvement in overall wellness. Supported by web-based interfaces, electronic feedback devices and behavioral change interventions, DPNS enables users to manage their food choices and activity levels.

### Influenza A (H1N1)

DSM has had an Influenza Emergency Team (IET) since 2006. The team was originally set up in response to the global avian flu threat. It follows the guidelines and principles of the World Health Organization (WHO). The IET is responsible for securing flu contingency planning, safety and good practices with regard to DSM employees in order to safeguard the continuity of site operations. Regional Focal Points are in place for regional coordination and information, where applicable.

In April 2009 the IET came into action again when the WHO raised the pandemic flu level from 3 to 4 for the Influenza A (H1N1) virus. All site emergency response teams and contingency plans that had been prepared in 2006 to deal with the avian flu threat were reactivated and updated. Centrally provided information and communication tools were distributed globally via the intranet and in hardcopy, with clear instructions on further cascading. Instructions were issued to all sites to implement site-specific additional cleaning and hygiene measures. To avoid unnecessary costs, the IET monitored on a weekly basis whether these measures could be lifted.

The Influenza A (H1N1) pandemic threat was an opportunity for the IET to test the contingency organization and update policies and communication lines. The team was able to conclude that the situation within DSM with regard to a possible pandemic flu outbreak was well under control at all times.

*“Taking part in DSM Vitality Checkpoint was an enriching experience.*

*The individual follow-up gave me some good suggestions for managing my health and vitality.”*

**Lars Hall**  
DSM Supply Chain Director



## Absenteeism

Absenteeism at DSM is determined by calculating the total absence due to illness in hours as a percentage of the total number of possible working hours. The total number of possible working hours is calculated by multiplying the average actual workforce in FTEs for the period in question by the number of hours corresponding to one FTE (52 weeks multiplied by the 'normal' number of hours per week, not taking into account leave of absence and holidays).

## Occupational health

In 2009 a total of 20 Occupational Health Cases were reported (2008: 18 cases). Reported cases feature physical troubles (11), psychological troubles (5) and allergic reactions (4). Our primary aim is to increase our employees' awareness of occupational health issues and to encourage them to report all Occupational Health Cases they encounter.

## Workforce composition

### Diversity

Diversity is not an isolated agenda at DSM, but is firmly anchored in the transformation of our culture and will continue to be one of the fundamentals of our values.

We will need to attract and keep the best talent available and encourage as much innovation as possible in order to be able to compete in our complex and fast-moving marketplace. Having people from different nationalities and genders will help to create a better mix of opinions and interactions and will better reflect the markets we serve. Diversity reduces organizational myopia. Research has shown that gender and nationality are the strongest differentiators for diversity in stimulating creativity and innovation. At DSM, diversity is centered on gender balance and nationality, underpinned by a clear link to our innovation strategy.

We will focus on three key areas, which will support us in building a sustainable culture that welcomes and embraces difference:

- Create an inclusive workplace
- Attract and hire
- Develop and retain

The role of the DSM Diversity Council, chaired by Feike Sijbesma, is to facilitate diversity at DSM and to ultimately support all DSM businesses in creating a sustainable inclusive environment, where diversity is embraced.

Examples include the launch of the DSM Women's Network and website, and the inclusion of diversity as a major theme in all leadership and management programs and as a strong criterion in the selection of our recruitment vendor partners. Other initiatives that are being developed and launched in 2010 include a major communications campaign that will touch all corners of our company.

In the end this should result in a more diverse management of our company contributing to a better performance of the company in the short and long term.

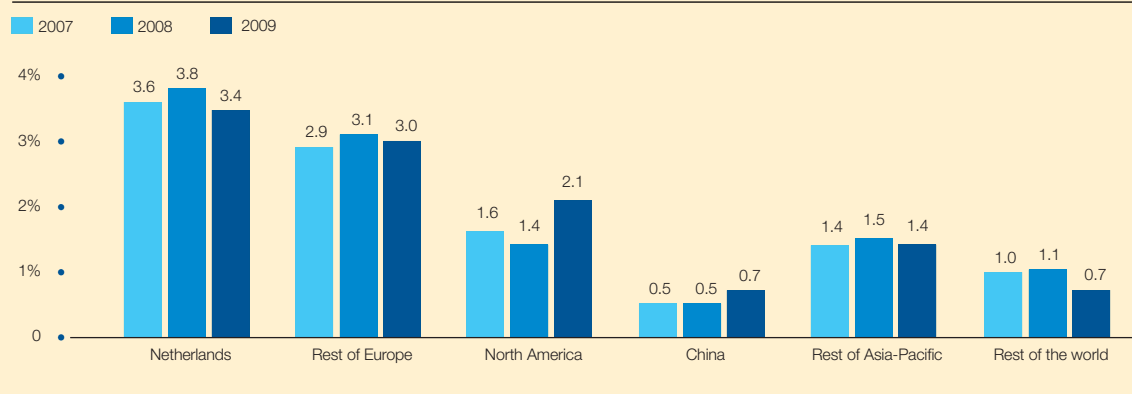
### Our new employees

#### Executive hires

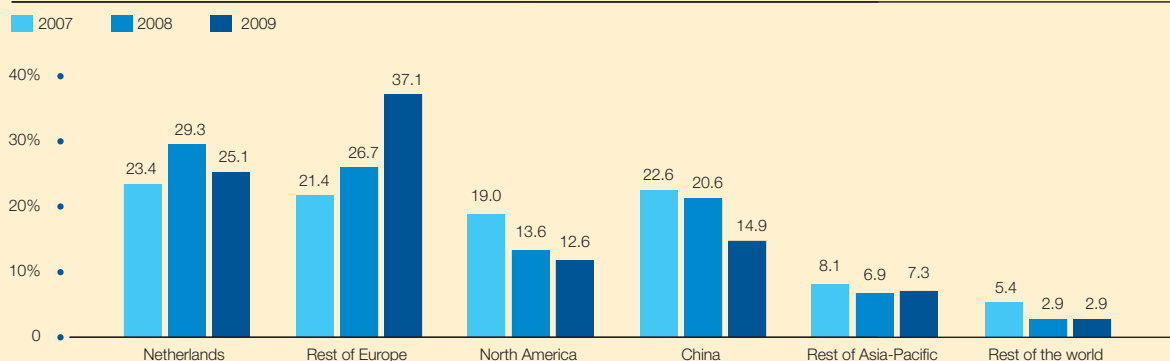
At the beginning of 2008, DSM decided that the intake of non-Dutch executives (55% in 2007) should be increased to an average of at least 60% inflow by the end of 2010. This was achieved by a clear margin during 2009, the score at 31 December being 71%. Our aim is also for an average of 25% of executives joining from outside the company in the period from 2008 to 2010 to be women. In 2009 this figure was 14%.

We recognize that our efforts in this area need to be increased. We did have a slight increase (from 7 to 8%) of female employees in the executive population.

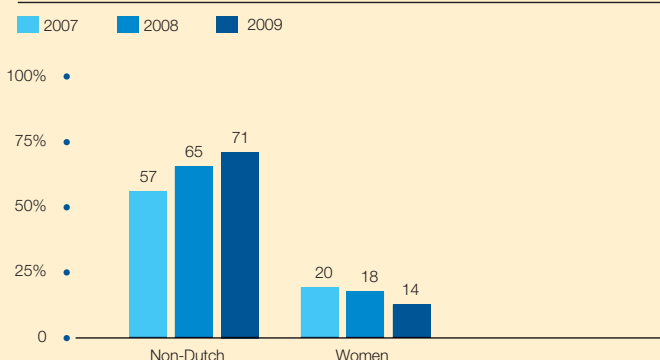
### Absenteeism (in %)



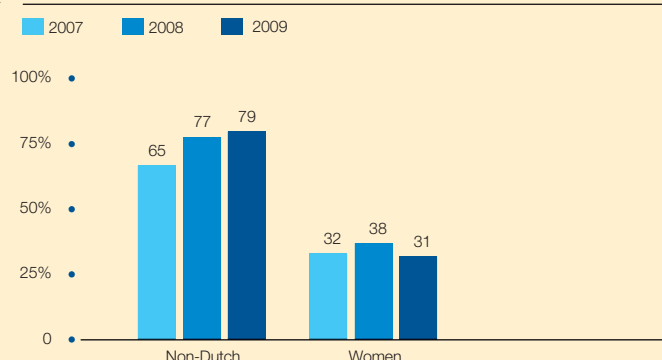
### New hires per region (in % of total new hires)



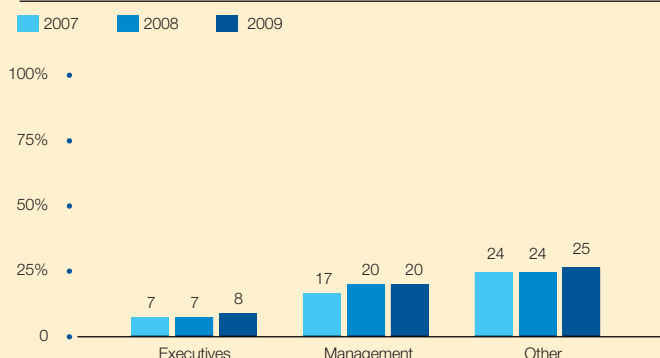
### Executive hires (diversity in %)



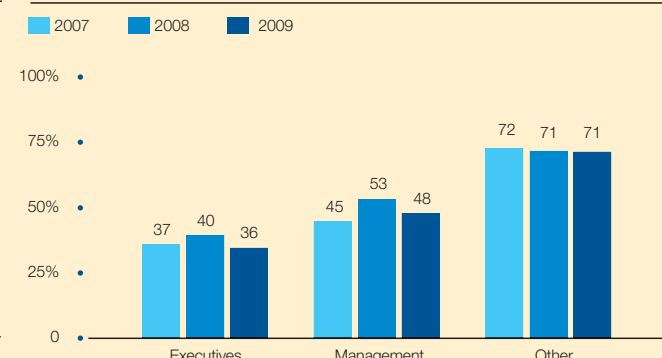
### Professional hires (diversity in %)



### Workforce diversity (% women)



### Workforce diversity (% non-Dutch)



In some countries (e.g. the USA), companies have to present a breakdown of their workforce showing for example the distribution of minorities. DSM does not collect these figures globally.



## Professional hires

In 2009, we recruited a total of 349 professionals (graduates and experienced hires), of whom 79% were non-Dutch and 31% were women. This means we met our internal targets. We want to keep our focus on the diversity of these hires (nationality/gender) and build a strong diverse talent pipeline to achieve sufficient 'diverse critical mass' in the organization. We want to improve our labor market positioning as an employer of choice, ensuring that DSM is an attractive career option for talented individuals across all groups of potential employees.

## Total workforce hires

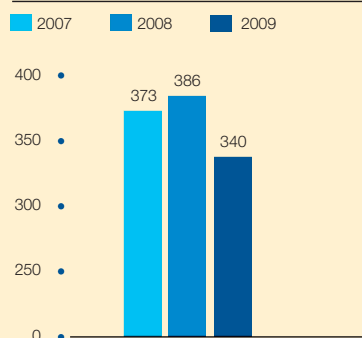
The total workforce inflow of new employees in DSM during 2009 was strongest for positions in Europe (outside the Netherlands).

This is attributable to the fact that our Nutrition business, with various locations in Europe, was least affected by the economic situation. The decrease in inflow in the other regions is due to the structural cost-saving actions DSM undertook during 2009, addressing the effects of the economic downturn and strengthening its competitive position.

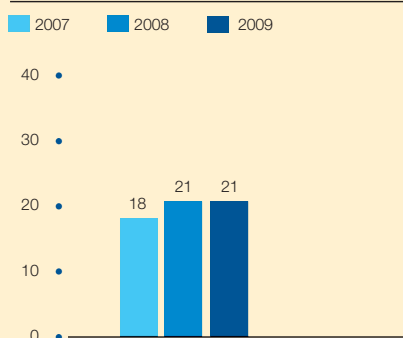
## Outflow of employees

In 2009, we had a total outflow of 2,016 employees. A total of 289 employees retired, 628 resigned of their own will and, most unfortunately, 24 employees died. In 2009, 347 employees were requested to leave the company (for non-performance or non-compliance reasons). A further 728 were made redundant due to reorganizations, of which a major part took place in China due to the closure of our Wuxi facility.

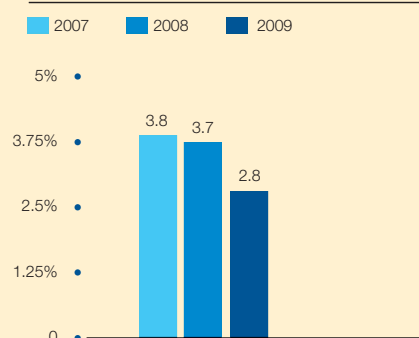
Net sales per employee (x € 1,000)



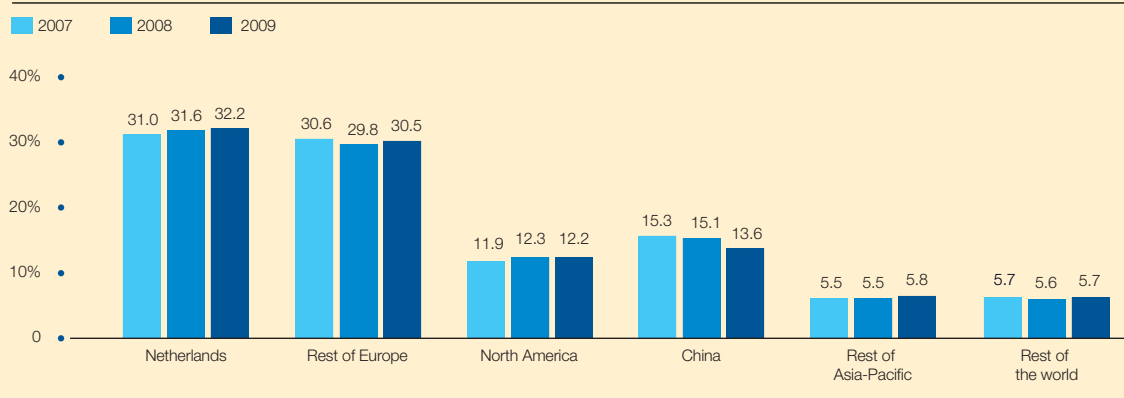
Training per FTE (in hours)




Resignations (in % of total workforce)



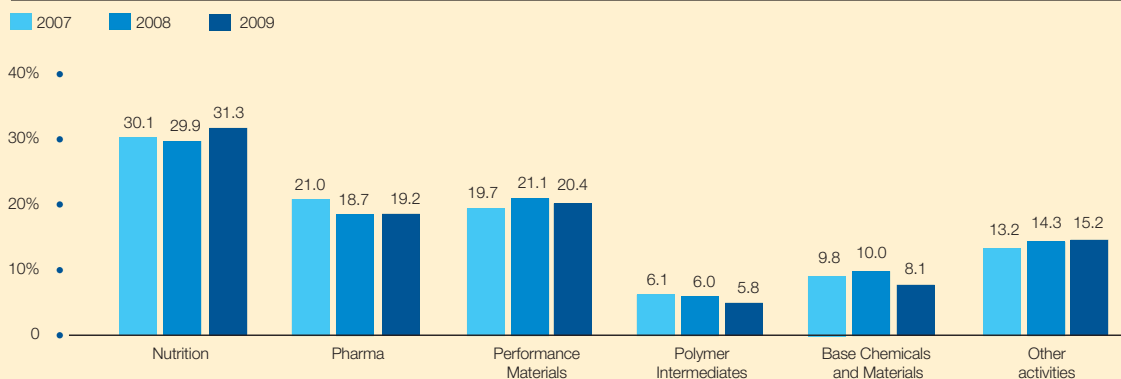
Employees per region (in %)



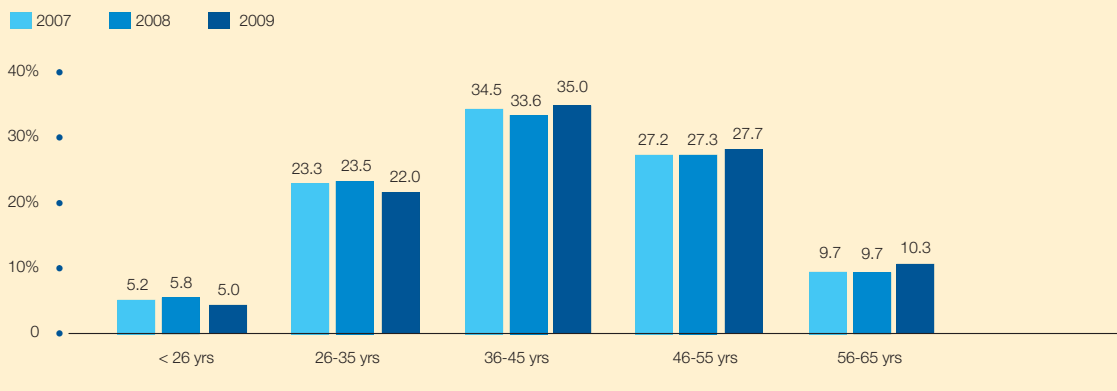


 Operators Jos van Sprang, front, and Roy van Zanten at the DSM NeoResins+ Emulsions Plant in Waalwijk, the Netherlands

#### Employees per cluster (in %)



#### Employees per age category (in %)



# Planet

## Caring for the Environment

In this chapter we describe how we work towards greater sustainability in the Planet field. The Planet element of our sustainability strategy is essentially about caring for the environment.

In the last part of this chapter we provide quantitative overviews of our performance in 2009 with respect to key indicators on the Planet dimension.

We give examples of our activities in 2009 that show our commitment to sustainability by:

- developing solutions that improve eco-footprints throughout the value chains in which we operate;
- continuously improving our own eco-footprint, for example by using energy and raw materials efficiently and using renewable resources where possible;
- Introducing various technological innovations - for example in the field of industrial (white) biotechnology - supporting the changeover from a fossil-based to a bio-based economy.

Where appropriate, we use icons to indicate how the stories in this chapter relate to the four megatrends identified in our accelerated *Vision 2010* strategy.







DSM Dyneema in Greenville, North Carolina, USA: Todd Buck (left), Fiber Production Supervisor and Jesse Whitley, Fiber Technician

## Jan Zuidam on economic growth and climate protection:

“There is a way out of the dilemma, but it will be hard work”

“The emerging economies and the generations coming after us have every right to pursue the same kind of economic growth and prosperity that the Western world enjoys today. Economic growth, however, means more industrial activity, more pollution and more greenhouse gases. So how can we create more wealth for more people and at the same time protect the climate? That is one of the big dilemmas the world is facing.”

“In 2009 the International Council of Chemical Associations published a report showing that the products of the chemical industry save more greenhouse-gas emissions in the value chains in which they are used than they generate during production. The report analyzed about a hundred representative chemical products, including several DSM products. On average, these chemical products save about 2.5 tons of CO<sub>2</sub> in the total value chain for every ton of CO<sub>2</sub> generated during their production. According to the report, the chemical industry has the potential to increase the current multiplier of 2.5 to 4.5. The study shows that there is a way out of the climate dilemma and that our industry is part of the solution.



Jan Zuidam, Deputy Chairman of the DSM Managing Board, retired from 1 January 2010

It will be hard work. The climate problem is very complex. We can further improve today's products and processes, but we will also need to make fundamental innovations and these won't come overnight. It will take another 20-40 years to implement solutions that will really bring down greenhouse-gas emissions. In doing so, we have to explore all the options. My guess is that it will take several decades to solve, say, 80% of the problem. It can't be done any faster. The world will first need to invest heavily in research and innovation. Industries should take the lead in this. Such investments could temporarily affect profits, but we will reap the benefits in the longer term. We need to keep moving forward on this road because the balance between Planet and Profit is at stake. If we don't change, we will need two planets instead of one to sustain a world population of 9 billion in 2050.

In order to solve the problem on a global scale, industry has to work together with governments and scientists. Scientists will need to provide fundamental solutions, industry's role is to implement these solutions and governments are responsible for creating the right conditions by creating a level playing field through effective regulation. Governments will also need to invest in climate-related knowledge development and research.

In the run-up to the global Climate Conference held in Copenhagen in December 2009, the Dutch government asked a number of companies, including DSM, to lead the way in climate protection solutions. DSM responded to this challenge in various ways. First of all we are developing innovative solutions (including bio-based solutions) that reduce greenhouse-gas emissions in the overall value chain. Second, we are making efforts to reduce our own carbon footprint as evidenced for example by our greenhouse-gas reduction target of 25% by 2020 (with 2008 as reference year and based on our new portfolio). Third, we are trying to achieve a sector-wide approach to greenhouse-gas reduction together with other players and stakeholders in industry.

We have actively advocated a greenhouse-gas emissions trading system based on benchmarking. In such a system all producers of a particular product get the same quantity of free emission allowances per unit of that product. As a consequence, the most efficient producers have a competitive advantage since they have to buy less or can sell more allowances. This would promote investment in energy-efficient technology. The European Commission has proposed that the new European Emissions Trading System, to be introduced in 2013, will be based on such benchmarking.

I have a lot of faith in our industry's ability to offer effective climate solutions alongside things like CO<sub>2</sub> storage, large-scale insulation schemes and forest conservation. But I believe the most important condition for solving the climate dilemma is a radical change in our thinking. I'm not the first to say this, but society needs to shift from short-term thinking to long-term-value thinking. In this respect, too, DSM aims to be a front-runner. We have our strategy to prove it."

## Highlights

- Five out of our nine environmental targets for 2010 have already been realized. Two others (energy efficiency and emission of NO<sub>x</sub>) are well on track and are expected to be realized. The realization of two targets (regarding emissions of VOC and SO<sub>2</sub>) is not yet certain and will depend on the timely realization of several projects.
- Energy efficiency (energy consumption per unit of product) substantially improved (by 7%) between 2005 and 2009. The main structural improvements occurred at DSM Anti-Infectives and DSM Fibre Intermediates Nanjing, China.
- Greenhouse-gas emissions by DSM decreased by 0.7 million tons of CO<sub>2</sub> equivalents between 2008 and 2009. The N<sub>2</sub>O reduction target for 2010 (40% reduction) has been amply achieved. Total greenhouse-gas reduction was 37% compared to 2005.
- The discharge of COD (oxidizable organic compounds) into wastewater was further reduced by 2,100 tons. The main structural improvement was realized at DSM Anti-Infectives in Zhangjiakou, China.
- The emission of Volatile Organic Compounds was further reduced by 1,800 tons compared to 2008. The main structural improvements were realized at several DSM Anti-Infectives sites as a result of a changeover to enzymatic processes.
- DSM introduced ECO+ solutions in 2009. ECO+ solutions are solutions that add more value, with less environmental impact. Of all the innovations DSM launched in 2009, 78% are ECO+.





 From left to right: Quintin Hernandez, Werner Flocken and Christophe Zumsteg in the Vitamin E production plant in Sisseln, Switzerland



## Making value chains more sustainable

As a company whose core value is sustainability, we are committed to continuously improving the sustainability of our own operations and the entire value chains (upstream and downstream) in which we operate. For the downstream segments, our strategy is to provide solutions that enable our customers and their customers (and ultimately the consumer) to improve their eco-footprint. Upstream, we achieve improvements by requiring our suppliers to meet our sustainability standards and to minimize their eco-footprint.

### ECO+

In all industries in which we are active, sustainability is increasingly being regarded as a source of added value. To capture this value, we focus on providing what we call ECO+ solutions. By this we mean products and services that, when considered over their entire life cycle, offer clear ecological benefits compared to the mainstream solutions they compete with. These ecological benefits can be created at any stage of the product life cycle – from raw material through manufacturing and use to potential re-use and end-of-life disposal. ECO+ solutions, in short, create more value with less environmental impact. In 2009, approximately 78% of our innovations launched had such an ECO+ score. To assess the ECO+ score consistently and comparably over time, we are currently developing a comprehensive approach including criteria, which we will continue in 2010.

DSM Food Specialties' Panamore™ (an enzyme preparation offering an alternative to traditional emulsifiers in the bread industry) is an example of an ECO+ product. Panamore™ can be used at significantly lower levels than traditional emulsifiers to give the same effect. This means that the required amount of Panamore™ has a much lower environmental footprint than the quantity of the emulsifiers it replaces.

### Life Cycle Assessments

Products have a variety of environmental impacts throughout their entire life cycle and throughout the value chain. By analyzing and quantifying these impacts, opportunities for improvement can be identified. This is what a Life Cycle Assessment (LCA) aims to do. The opportunities for improvement that an LCA identifies for a given product can relate to 1) the efficiency of the product chain or 2) the performance of the product. Examples of the first category are: using less fossil resources during production, reducing losses in the production process and recycling the product when it reaches the waste stage. Examples of the second category include increasing the product's useful life and reducing energy consumption during use.

Besides revealing opportunities for improving an existing product's 'eco-efficiency' as described above, an LCA also helps to create awareness about such a product's total eco-effect. This awareness can stimulate the development of new, 'eco-effective' products, i.e. products that meet the same perceived needs but have a lower eco-impact.

### Enabler

Last but not least, LCAs can be used to compare the eco-performances of different products in the same application. In 2009 the International Council of Chemical Associations (ICCA) published a report in which LCAs are used to demonstrate that the chemical industry is an enabler of climate change abatement. The report analyzed about a hundred representative chemical-industry products in terms of CO<sub>2</sub> emissions, including several DSM products. The full-life-cycle CO<sub>2</sub> emissions for each of these products were compared with the emissions for the next best non-chemical-industry alternative. On average, these chemical products were found to save about 2.5 tons of CO<sub>2</sub> in the total value chain for every ton of CO<sub>2</sub> generated during their production. According to the ICCA report, the chemical industry has the potential to increase this multiplier from 2.5 to 4.5. Needless to say, LCAs will be an important tool in validating the ECO+ scores of our products.

### Transparency

DSM strives to carry out LCAs for all of its products. At year-end 2009 we had determined the 'cradle to gate' footprint (that is, from the extraction of raw materials until the moment the product leaves the factory gate) for a large number of products that together represent approximately 60% of our CO<sub>2</sub> emissions (based on our new portfolio). A target for 2010 is to expand this to cover 80% of our CO<sub>2</sub> emissions. In addition, for all new products we carry out full LCAs, including the use and waste stages, in other words 'from cradle to grave'.

We provide the outcome of our LCAs to our customers, who can use it as input for LCAs on their own products. In this way we contribute to the eco-transparency of the overall value chain (or value cycle, as we prefer to call it). We also contribute by publishing all emissions and the consumption of energy and water per site on our website.

### Value chain analyses: opportunities for innovation

We also carry out environmental analyses for the most important value chains in which our products are used. Such studies can reveal important opportunities for adding eco-value through innovation. For the automotive value chain, for example, we have reviewed the eco-footprint associated with one kilometer traveled by car.

Such an analysis reveals which factors are the biggest contributors to a car's footprint and can therefore be potential targets for our ECO+ innovation efforts.

### Consensus-based LCA

To ensure that our footprint information and our ECO+ claims are meaningful, we carry out LCAs according to standards and principles that are accepted industry-wide. In particular, we use the LCA methodology recommended in ISO 14044, which includes peer reviewing. In addition, we use our highly developed external network to enhance industry consensus on LCA practices.



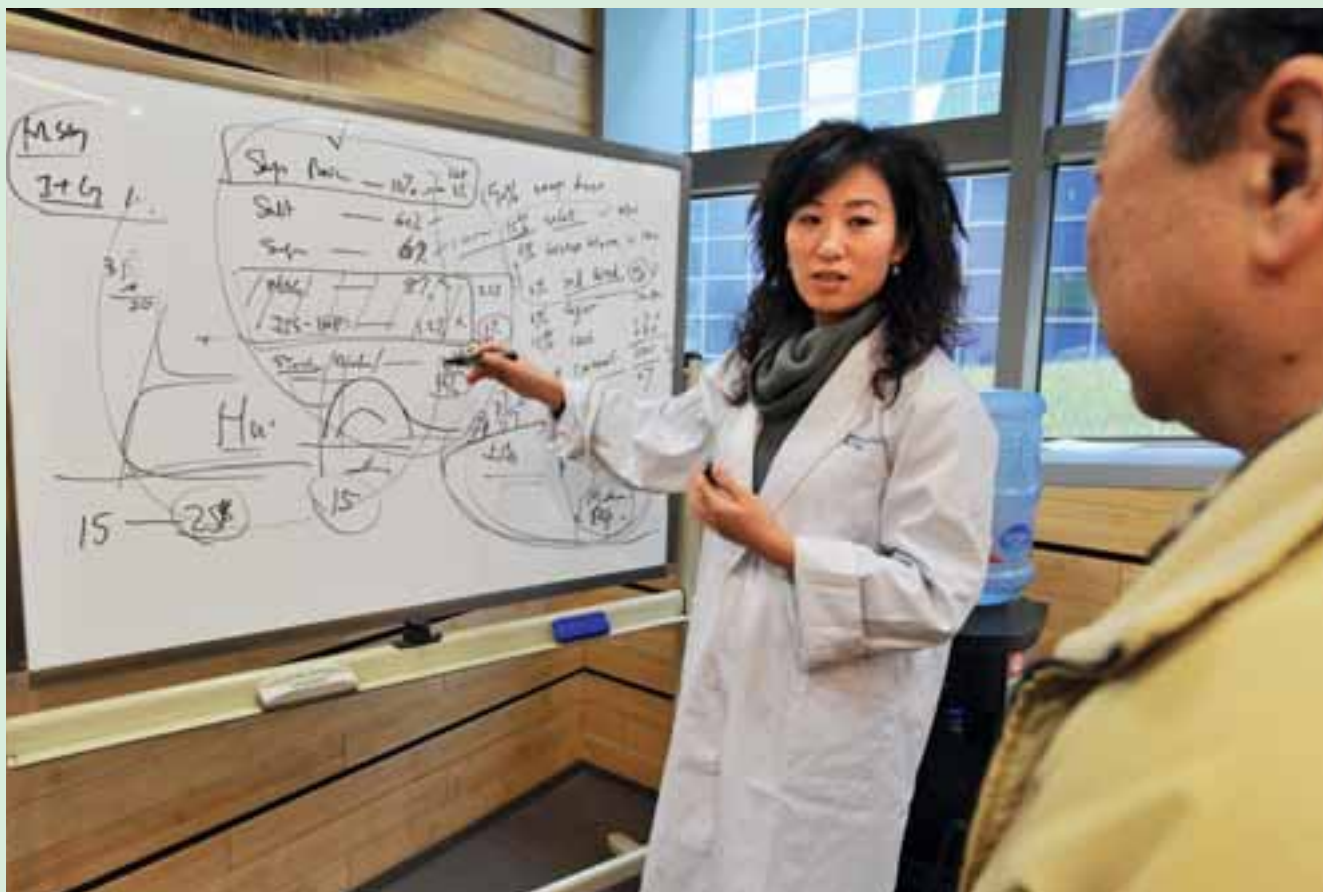
### Renewable Energy Certificates

In 2009 we evaluated whether we could significantly improve the eco-footprint of our value chains by using more 'green' electricity such as wind or solar power. We found that the main hurdles are the limited availability of production capacity for green electricity and the high production costs compared to electricity generated from coal, natural gas or nuclear power.

One option we have investigated is the purchase of renewable energy certificates, also referred to as guarantees of origin. A Renewable Energy Certificate (REC) represents proof that a certain amount of electricity was generated from a renewable source such as hydropower or wind. Every time a renewable green energy facility produces, say, one MegaWatt hour (MWh) of electricity, it is given the right to sell one REC. This REC can be sold separately from the underlying MWh. By purchasing RECs, companies would be allowed to claim the use of green electricity.

Due to a surplus of RECs generated by existing hydropower facilities, the price of RECs is currently very low and falls far short of covering the cost of expansion of renewable energy production. Taking all this into account, DSM has decided not to go this way.

In order to overcome the dilemmas mentioned above, DSM instead advocates the use of market-based instruments that include the real cost of CO<sub>2</sub> emissions in the price of products. Such instruments, for example emissions trading, should be carefully designed so that the price signal effectively stimulates reduction of CO<sub>2</sub> emissions across the product value chains. Whenever we can source competitively priced renewable energy we will do so. In 2009, renewable energy accounted for 7% of our overall energy use.



 Wang Hong-Hong, Technical Application Manager DSM Food Specialties at the DSM China Campus in Shanghai



## Greening the transport sector

The transport sector is responsible for more than a quarter of human-induced CO<sub>2</sub> emissions worldwide. This makes it one of the largest single contributors to global climate change. DSM contributes to solutions that make the sector more sustainable. Many of these solutions help improve fuel efficiency, and we are also involved in the development of second-generation biofuels.

### Weight is everything

Engineering plastics and composites are increasingly being used in cars to replace heavier metal components. The trend toward lower fuel consumption means weight is top of the agenda for the sector. Roughly 50% of fuel is used to move the weight of the car. If a car's weight is reduced by 10%, it will become 5% more fuel efficient.

Currently, around 250-300 kg of plastic is used in a car, depending on the size and model, which is approximately 40% of the weight of an average mid-size car. This ratio can certainly be improved and the next step could be to replace metal body panels by plastics and eventually integrate engineering plastics into the frame of the car. A hybrid structure combining metal and plastic has already been a marked success in the aviation industry.

### Auto innovation drivers

DSM Engineering Plastics offers a wide range of weight-saving high-performance plastics for the automotive industry. Its main fields of materials expertise are air/fuel, power train, electrical and electronics, airbag and brake systems. In the first half of

2009, DSM Engineering Plastics introduced a range of new or improved grades of Akulon® PA6, Arnite® PBT and PET and Stanyl® PA46 for use in a car's electrical and electronics systems, offering weight savings of up to 50%.

Another DSM business that offers weight-saving solutions to the automotive industry is DSM Composite Resins. It has a proven track record in many interior and exterior applications, such as fenders, roof modules, deck lids and tailgates, truck panels, head lamp reflectors, throttle valve bodies and oil sumps. The key value of composite resins compared to metals in these applications is that they offer great strength at a significantly reduced weight.

### Tata Nano

DSM Engineering Plastics provides materials for the Tata Nano, the ultra-low-priced car that Tata Motors launched in India in March 2009. The Tata Nano features engineering plastics from DSM in more than 20 under-the-hood parts and several transmission parts. We owe this success to our long-standing partnership with Tata Motors and our strong presence in India, which was strengthened even further in March 2009 by the opening of a new facility for manufacturing engineering plastics compounds near Pune. The plant tripled compound production for Akulon® PA6, Arnite® PBT and PET and Stanyl® PA46 in India. It is also the largest polyamide and polyester compounding facility in the country. With this new greenfield facility, we underline our long-term commitment to one of the world's largest and fastest growing emerging economies.



## High-fliers

In the aviation industry, weight savings are hugely important. Weight directly translates into fuel, and fuel means costs as well as emissions. DSM's advanced materials help the aviation industry reduce both costs and emissions.

In April, DSM Dyneema and Hoffmann Air Cargo Equipment (ACE) GmbH introduced a new lightweight air-cargo net. Ultra high strength Dyneema® fiber was the critical enabling component replacing polyester fiber. Traditional cargo nets made with polyester typically weigh between 15-18 kg, whereas the net with Dyneema® fiber weighs only 8 kg. The weight reduction could be achieved with no loss in safety or performance. Furthermore, Dyneema® fiber's chemical, UV and high abrasion resistance and its long-term durability help extend the lifetime of the cargo nets significantly, resulting in overall lower costs and reduced environmental impact.

The reduced weight of nets made with Dyneema® fiber can help reduce aviation fuel consumption by up to 700 kg per year for each net in use. This results in lower costs as well as in a reduction in greenhouse-gas emissions. For a typical mid-size cargo airline operating 5,000 nets this impact is equivalent to more than 20,000 tons of CO<sub>2</sub>.

### *Award-winning combo*

In October DSM was awarded the prestigious international AVK Environmental Innovation Award for a new, lightweight version of air-cargo containers. The award was granted for the development of new, ultra-strong air container panels, RP10 panels, based on advanced composite material technology from DSM. The panels are made with Aeronite® resin and Dyneema® from DSM. The containers have flexible doors based on a composite laminate that, besides Dyneema®, includes Exact® metallocene plastomer from DEX Plastomers, a joint venture between DSM and ExxonMobil Chemical. We have licensed the RP10 panel technology to DoKaSch GmbH, a leading manufacturer of air-cargo equipment, who made the containers commercially available. The RP10 panels are three times more impact resistant and nearly 50% lighter than standard aluminum panels used in cargo containers.

The weight saving offered by the containers can result in a significant drop in fuel consumption for a typical air-cargo fleet. A typical mid-size cargo fleet will load around 5,000 containers over the course of a year, which could result in savings of up to 330,000 liters of fuel, yielding a 28,000 ton reduction in CO<sub>2</sub> emissions.

## Bio-based

Another way to reduce eco-footprints is by using biofuels and bio-based materials. DSM offers solutions in both fields.

### *Developments in biofuels*

Biofuels (such as bioethanol) are made from plants that, for their growth, extract carbon dioxide from the atmosphere. This carbon dioxide is released back into the atmosphere when the biofuel is burned. So using biofuels instead of fossil fuels may reduce the net emission of greenhouse gases by the transportation sector. The current, first generation of biofuels is based on agricultural products such as sugar and starch. These products are important for the food and feed industries, so using them for biofuels on a large scale will have a negative impact on the world's food supply. The second generation of biofuels will be based on cellulosic raw materials that are not used for food or feed, e.g. agricultural waste and byproducts such as straw and corn stover. These wastes and byproducts can be an attractive alternative to fossil fuel.

DSM has the capabilities needed to cost-effectively produce bioethanol from cellulose via the biochemical pathway. The availability of raw materials and the cost of conversion and processing are key to the ultimate commercial application of biofuels. We have developed an enzymes system capable of further lowering the conversion costs, going beyond the current state of the art. We believe that, in order to achieve a sound competitive position, bioethanol should be produced in an integrated and optimized biorefinery concept.

In 2009, as a partner in the KACELLE consortium led by DONG Energy, DSM received a grant from the European Commission (Framework Program 7) for the development of advanced ethanol-producing yeast. This yeast has the potential to improve the economic viability of a wheat-straw-based biorefinery. In 2008 we had received a similar grant from the US Department of Energy for a four-year extensive enzyme development program that will focus on finding applications in cellulose-based biorefineries for the production of bio-based products, including biofuels. This research is being carried out by a technical consortium in which we are the lead partner.

### *Bio-based materials*

As a consequence of policies to reduce the global emission of greenhouse gases and oil price increases, the demand for bio-based materials replacing materials based on oil is growing fast. DSM Engineering Plastics reached a breakthrough in July 2009 with the commercial launch of EcoPaXX™, a bio-based, high-performance engineering plastic. EcoPaXX™ is a long-chain polyamide whose properties make it suitable for demanding applications such as those in the automotive and electrical markets.



Team at DSM Business Incubator, clockwise from left: Rudolf Wessels, Germaine Berns, Remko Goudappel, Henk Janssen, Robert van den Heuvel, Rutger Bonsel, Rodrigo Navaro, Wilbert Duijmelinck and Oscar Goddijn



## Industrial (White) Biotechnology

Approximately 70% of the polymer consists of building blocks derived from castor oil as a renewable resource. Castor oil is obtained from the beans of the *Ricinus Communis* plant, which is grown on relatively poor soil that is not used for food crops.

Through life cycle assessments it has been shown that the carbon dioxide that is generated during the production process of this polymer is fully compensated for by the amount of carbon dioxide absorbed in the growth phase of the castor beans. In other words, the product's carbon footprint 'from cradle to DSM gate' is zero. This is a strong selling point in today's plastics market and fully compatible with DSM's strategy of sustainable innovation.

Within DSM, a dedicated unit within the DSM Innovation Center is working on the development of a platform of bio-based performance materials for a range of markets in close cooperation with the business groups, the industrial (white) biotechnology group and external partners. Examples of these cooperations include the investment in green-chemistry company Segetis, Inc. and the joint development agreement with Novomer to develop the first green resin for coatings.

In the coming years DSM will continue to focus on the differentiating combination of performance and sustainability of materials, which will translate into tangible value for customers, DSM and society at large.

DSM continues to invest in industrial (white) biotechnology as this has proved to have great potential for creating alternatives to the fossil-fuel-based economy. DSM White Biotechnology is actively building a leading position in the fast-growing industrial (white) biotechnology market, based on the combination of DSM's established strengths in enzyme technology, Life Sciences and Materials Sciences together with the full expertise of all our business groups and laboratories. Its goal is to become a leader in industrial (white) biotechnology.

Together with partner Roquette, DSM White Biotechnology has developed a biotechnological process for producing succinic acid on the basis of starch in a multi-hundred ton per annum demonstration facility in Lestrem, France. Starch is a renewable resource that is processed into fermentable sugar using enzymes. DSM's fermentation technology is employed to turn this sugar with additional CO<sub>2</sub> from the air into succinic acid. Succinic acid is a versatile bio-based building block with a low ecological footprint for materials sciences applications, illustrating the potential of our 'X-factor program' combining Life Sciences and Materials Sciences.

Fokko Wientjes, Director Sustainable Development and Oscar Goddijn, Vice President DSM Business Incubator

## “Biodiversity is the backbone of all life on earth”

Fokko Wientjes,  
Director Sustainable Development at DSM, says:

“Biodiversity is defined as variability among living organisms and ecosystems. This variability is an important condition for life on earth and it is vital for human survival. A variety of plants and animals are needed to provide us with food, clean water and fresh air. Ecosystems regulate our climate, contribute to our health and provide us with important recreational services. DSM benefits from biodiversity as a source of inspiration and innovation. We have started discussing how to include biodiversity in our sustainability policies.

According to the International Union for the Conservation of Nature (IUCN), the world is facing a serious crisis in biodiversity. The rate at which animal and plant species are becoming extinct and the pace at which natural environments are being destroyed are increasing every day. This escalating loss is a serious threat to humankind and our way of life, now and in the future. DSM started several actions in 2009:

- We started to shape a biodiversity policy and invited IUCN, one of the most knowledgeable NGOs in this field, to be our sounding board, adviser and challenger in defining actions for including biodiversity in our thinking (strategy), acting (operations) and reporting (communications).
- We pledged our support to the Prince of Wales' Rainforest Initiative and signed IUCN's letter on Reducing Emissions from Deforestation and Forest Degradation (REDD).
- We became a member of (Young) Leaders for Nature.
- Our Deputy Chairman Jan Zuidam (retired on 1 January 2010) became a member of the 'Dutch taskforce on biodiversity and other natural resources'. This taskforce is a Dutch government initiative and will advise on measures on this topic.”

Oscar Goddijn, Vice President of the Business Incubator at the DSM Innovation Center and member of DSM's biodiversity team, adds:

“Biodiversity is a very complex subject that we are currently investigating and discussing within DSM and with IUCN. In assessing the extent to which our activities are affecting biodiversity, we need to look beyond the direct impact and dependency of our manufacturing operations. We are analyzing the impact of our products throughout their life cycle. In our approach we focus on parameters influencing biodiversity. These parameters could be water, energy, land use and raw materials.

As an example, in a case where a customer uses our 'product X' in a water-intensive process, we attempt to find ways to make that process more water-efficient. Our wine stabilizer Claristar® is such a product. It reduces water usage in the wine industry by 25 to 50%.

A complicating aspect is that all parameters, such as water, energy and raw materials, are interconnected. For example, reducing water consumption may involve an increase in energy usage or the use of different raw materials. But this complexity should not keep us from analyzing our direct and indirect impact on biodiversity.

In our analyses we have focused mainly on impact mitigation through efficiency improvements and product stewardship. I believe that it is not enough to mitigate the negative impact on biodiversity; we should aim for a neutral or positive impact.

Some of the potential impacts are already being addressed by legal or voluntary initiatives such as REACH, Global Product Strategy, Emissions Trading, Climate Policy, Water Policy, Sustainable Sourcing, etc. Our biodiversity policy has to be complementary and supportive to these programs.

We are presently developing a policy that, in line with the DSM Values (to be replaced by the Code of Business Conduct in 2010) and our Corporate Requirements, will ensure that our activities are acceptable to our stakeholders and society at large from a biodiversity point of view.”





## Enzymatic technology at DSM Anti-Infectives

A changeover to enzymatic technologies in the production of anti-infectives and their intermediates was one of the main reasons why DSM Anti-Infectives managed to increase its energy efficiency by approximately 30% between 2005 and 2009, making it the largest contributor to DSM's overall energy-efficiency improvement of 7% in this period.

In addition, the introduction of enzymatic technologies enabled DSM Anti-Infectives to roughly halve its overall specific Volatile Organic Compound (VOC) emissions compared to 2005, and it will lead to further reductions in 2010.

### Green technology in Zibo

In December 2009, DSM Anti-Infectives introduced an enzymatic process (based on its patented Green Technology) for the production of cephalexin at its site in Zibo, China. In contrast to the traditional chemical process of producing cephalexin, DSM's Green Technology provides a solution using less energy, less wastewater and with lower emissions. Moreover, the enzymatically produced product is purer, with fewer residual solvents.

Cephalexin is one of the key antibiotic products in China. Demand is expected to grow in the coming years because cephalexin has been included in the National Essential Drugs List that was released in the Chinese government's most recent healthcare reform program.

The launch of the new process in Zibo not only provides Chinese manufacturers of antibiotic finished dosage forms with safer and purer active ingredients, but is also giving a boost to the development of cleaner technology in the Chinese pharmaceutical industry.

### TABLA project in Toansa

The TABLA project executed in the DSM Anti-Infectives plant in Toansa, India in 2009 is another good example of the benefits of a changeover to enzymatic technology. Enzymatic production of ampicillin yields a purer product, saves natural resources and reduces pollution. VOC emissions have been reduced by more than 90%, CO<sub>2</sub> and SO<sub>2</sub> emissions by approximately 50%, electricity consumption by 30% and groundwater consumption by about 15%.

## DSM water policy

In 2009 we made a start on the development of a more integrated DSM water policy, which will be finalized in 2010. One of the elements of this policy is that water-scarcity considerations will be an integral part of our decision-making about where we are going to build new plants, alongside considerations such as raw-material supply, proximity to customers and infrastructure.

We are evaluating the water footprint of all our production plants with the aim of finding opportunities for minimizing or improving this footprint. We have identified the top 20 sites based on a combination of water scarcity and contribution to the DSM water footprint. An evaluation of these 20 sites has been carried out, focusing on:

- availability of water;
- usage of water;
- cost of water;
- water reduction and reuse plans.

In-depth risk assessments will be carried out in 2010, to form the basis for a 'source water protection plan'.

The Toansa plant of DSM Anti-Infectives is an example of a DSM plant that fully reuses or recycles all the water that it uses. In 2009 it won the Green Manufacturing Award (presented at the 2009 European Manufacturing Strategic Summit in Düsseldorf, Germany) for its water management efforts, among other things.


DSM endorses the principles of the United Nations Global Compact CEO Water Mandate, a leadership platform that deals with the use and conservation of water worldwide. Our CEO Feike Sijbesma signed this Mandate in 2009 to underline DSM's commitment to water management as part of our sustainability strategy.



## Improving the CO<sub>2</sub> footprint of our raw materials

In order to gain a better insight into the environmental impact of our products we pay attention to the whole value chain. We used to focus primarily on the impacts of our own production activities, including the emissions from power plants that supply electricity and steam to DSM. These are called 'scope 1' and 'scope 2' emissions, respectively. A more complete picture of the environmental impact of our activities emerges when we take into account the emissions related to the production of our raw materials. These are called 'scope 3' emissions.



 DSM Dyneema in Greenville, North Carolina, USA, from left to right: Quency Gardner, Quality Associate, Damaris Vega, Quality Supervisor and Megan Wickersham, Quality Associate

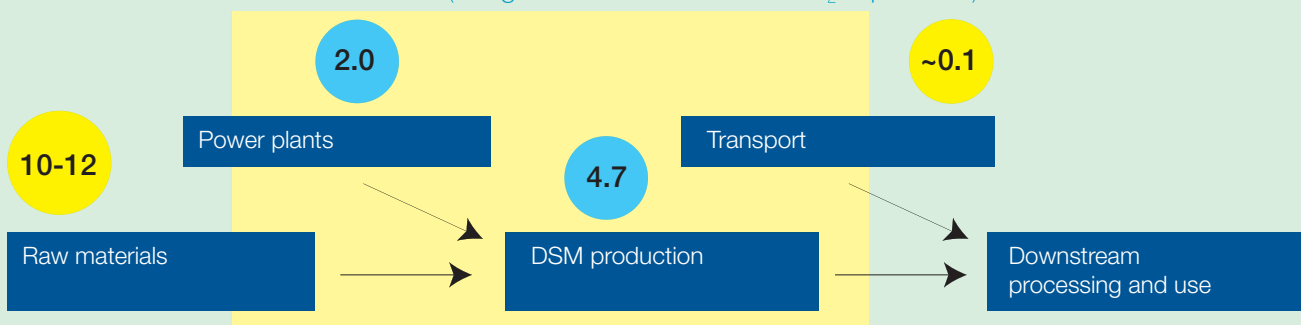
## Greenhouse-gas reductions in ICT

In 2009 we analyzed the greenhouse-gas emissions due to all raw materials we use, which in total comprises a spend of approximately € 3.7 billion per year. Based on information from expert databases, the production of our raw materials generates emissions amounting to 10-12 million tons of CO<sub>2</sub> equivalent per annum, which is quite significant compared to emissions from our own activities of 7.4 million tons in 2008 and 6.7 million in 2009.

Improving our production processes and reducing material losses are therefore crucial to our sustainability performance. In 2010 we will start discussions with our major suppliers about actions that can be taken to improve the overall footprint in the value chain.

Our greenhouse-gas reduction drive permeates the entire DSM organization. Our ICT department, for example, carried out approximately 25 initiatives in 2009 to make our ICT infrastructure and our way of working more efficient, with a focus on energy efficiency. In this way hundreds of tons of CO<sub>2</sub> emissions were saved compared to 2008. For example, the replacement of energy-inefficient desktops, laptops and servers, the elimination of superfluous email servers and data-center efficiency improvements together resulted in savings totaling 385 tons of CO<sub>2</sub> equivalent.

## GHG emissions in our value chains (all figures in million tons of CO<sub>2</sub> equivalent)



## Environmental targets for 2010

**On these pages we present total emission and consumption figures of DSM in 2009 and comment on our progress towards meeting the reduction targets for 2010.**

It should be taken into account that the production volumes of several plants were lower than in previous years for economic reasons. Data reporting by the sites is regularly audited by our Corporate Operational Audit department.

The environmental targets are based on the principle that all DSM sites in the world should as a minimum meet the standards as applied in the European Union or the United States. New plants and major plant modifications should meet this requirement right from the start, whereas existing plants should meet it within five years.

Five out of our nine environmental targets for 2010 have already been realized. Two others (energy efficiency and emission of NO<sub>x</sub>) are well on track and are expected to be realized. The realization of two targets (emissions of VOC and SO<sub>2</sub>) is not yet certain and will depend on the timely realization of several projects.

The table below shows DSM's environmental reduction targets for 2010 and the status in 2009 relative to 2005<sup>1,2</sup>. The reduction percentages are the result of calculations incorporating changes in production volume, acquisitions and divestments. The graphs on the following pages show the DSM totals without corrections, which can cause some apparent differences.

	% Reduction target in 2010 compared to 2005	% Reduction realized in 2009 compared to 2005
Dust	75	90
N <sub>2</sub> O	40	70
SO <sub>2</sub>	75	65
NO <sub>x</sub>	20	35
VOC	50	35
COD	15	85
Landfilling non-hazardous waste	5	50
Landfilling hazardous waste	100	100
Energy efficiency	8	7

1 Corrected for changes in production volumes and product portfolio relative to the reference year 2005.

2 With regard to hazardous waste DSM intends to ban landfilling for all situations where this is feasible.

## Emissions to air

### Dust

Based on the improvements realized in previous years, the 75% reduction target for 2010 has already been achieved. No major changes took place in 2009.

### N<sub>2</sub>O

The reduction target of 40% for emissions of dinitrogen oxide (N<sub>2</sub>O) for 2010 has been achieved. The main remaining sources of N<sub>2</sub>O emissions are the caprolactam plants of DSM Fibre Intermediates in Sittard-Geleen, the Netherlands, Augusta, USA and Nanjing, China. In 2009 an increase at DSM Fibre Intermediates in Sittard-Geleen and Nanjing was compensated for by a decrease at DSM Fibre Intermediates in Augusta, USA. All changes were mainly attributable to changes in production volumes.

Measurement of dinitrogen oxide in these plants is complex, which causes some uncertainty in the reported values. Improved measurements may thus lead to corrections in the coming years.

DSM Fibre Intermediates is working on new technology for N<sub>2</sub>O abatement in its caprolactam plants. In setting our 2020 greenhouse-gas target we are working under the assumption that the development and implementation of this new technology will be successful.

### SO<sub>2</sub>

Emissions of SO<sub>2</sub> have decreased significantly since 2005. Compared to 2008, SO<sub>2</sub> emissions decreased further in 2009, mainly due to better coal quality and higher boiler efficiency at DSM Anti-Infectives in Zhangjiakou, China (-150t) and the closure of DSM Nutritional Products in Wuxi, China (-220t). SO<sub>2</sub> emissions from DSM Fibre Intermediates Nanjing increased due to increased production volume (+130t). Reduction possibilities at DSM Fibre Intermediates Nanjing are being evaluated and will be implemented by the end of 2010. Depending on the timely realization of these projects, we expect to realize the reduction target of 75% in either 2010 or one year later.

### NO<sub>x</sub>

NO<sub>x</sub> emissions fell compared to 2008 due to the closure of the DSM Nutritional Products site in Wuxi, China (-960t). The effects of increases in production volumes in some plants were compensated for by reductions in other plants. The realization of the targeted 20% reduction in 2010 is still uncertain and will depend on the performance (NO<sub>x</sub> emission per ton of output) of several plants that contribute to NO<sub>x</sub> emissions.

## VOC

Total emissions of Volatile Organic Compounds (VOC) decreased by approximately 1800 t/yr compared to 2008. Major reductions resulted from a changeover to enzymatic processes at DSM Anti-Infectives in Toansa, India (-600t) and Ramos Arizpe, Mexico (-200t). The full benefit of these measures will be seen in 2010. Further reductions were mainly the result of reduced output at several plants and process improvements (DSM Elastomers, Triunfo, Brazil, DSM Fibre Intermediates, Augusta, USA and DSM Anti-Infectives, Zibo, China). Emissions at DSM Engineering Plastics in Emmen, the Netherlands, increased by approximately 150 tons as a result of an acquisition. In 2010 and beyond measures will be taken to reduce these emissions by at least 90%.

Based on indications that the reported VOC emissions at DSM Fibre Intermediates in Nanjing, China were not correct, a detailed analysis was performed. This has led to an upward restatement of reported quantities over the years 2005–2009 by 500 to 800 tons per year. In the course of 2009 some major emission sources were eliminated. Additional measures to reduce emissions will be taken in 2010<sup>1</sup>.

A project at the DSM Anti-Infectives site in Zibo, China to change over to an enzymatic process for the production of cephalexin was completed in 2009 and will result in a further reduction in VOC emissions in 2010. Further reduction projects are planned at DSM Fibre Intermediates Augusta, USA.

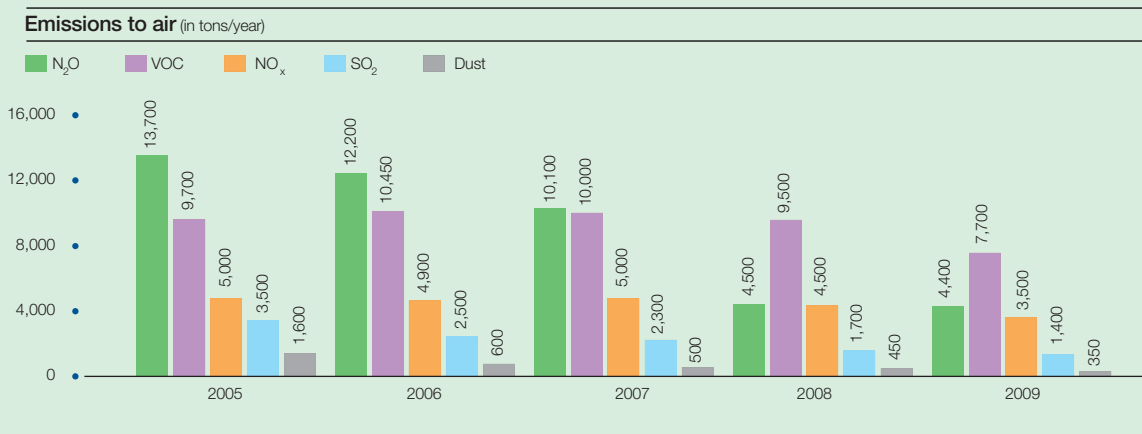
Timely realization of the above-mentioned projects will result in the realization of the 50% reduction target in 2010.

*“Biodiversity is essential for a healthy planet. It sustains our economy as a provider of ecosystem services such as food, wood, fibers, medicines, clean water or climate control. Combined with social and cultural values, biodiversity is the core element of sustainability. IUCN welcomes business partners like DSM, who are willing to work on the biodiversity issue and are willing to develop the capabilities that are needed to provide solutions.”*



**Willem Ferwerda**  
Director IUCN National  
Committee of the Netherlands

In addition to the consolidated graphs shown here, on [www.dsm.com](http://www.dsm.com) we publish detailed information on the environmental performance of all our production sites, such as emissions, consumption figures and SHE highlights.



<sup>1</sup> We consider it unlikely that similar large corrections will be needed elsewhere in the future



## Emissions to water and landfilling of waste

### COD

The discharge of oxidizable organic compounds (COD) was greatly reduced compared to 2008 (-2,100t), mainly due to reduced output at several plants (DSM Fibre Intermediates Augusta, USA, DSM Nutritional Products Sisseln, Switzerland, DSM Nutritional Products Dalry, Scotland), the closure of DSM Nutritional Products Wuxi, China and the reduced use of groundwater at our site in Delft, the Netherlands. A major improvement was realized at DSM Anti-Infectives in Zhangjiakou, China, where all wastewater is now treated in the wastewater treatment plant. As a result of these and previous reductions, the target for 2010 has been amply achieved.

### Non-hazardous waste

The landfilling of non-hazardous waste was significantly reduced (by 9,300 tons) compared to 2008. Major reductions resulted from a successful shift from landfill to off-site recovery at DSM Nutritional Products Dalry and the closure of DSM Nutritional Products Wuxi. Other changes were mainly the result of one-off disposals of waste materials. As a result of these and previous reductions, the target for 2010 has been amply achieved.

### Hazardous waste

DSM intends to ban the landfilling of hazardous waste for all situations where feasible alternatives exist. This is reflected in the 100% reduction target. Landfilling is only accepted within DSM if there are no technically feasible or legally permissible alternatives.

In 2009 a total of approximately 2,800 tons of hazardous waste were landfilled, which is significantly lower than the 4,100 tons landfilled in 2008. For all material it was shown that no technically feasible and legally permissible alternatives existed. DSM therefore considers the reduction target to have been achieved.

## Biodiversity

Twelve DSM sites are located in or adjacent to (protected) areas of high biodiversity. We have no indication of any adverse impact of our operations on these areas.

## Energy and greenhouse gases

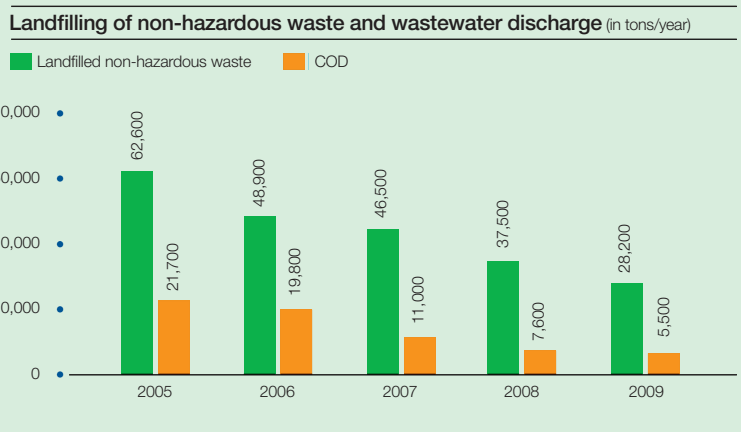
As in 2008, total energy consumption in 2009 decreased considerably (from 72 to 63 PJ) as a result of lower production volumes. Although the lower production volumes had an adverse effect on energy efficiency, the overall efficiency was still 7% better than in 2005. The main contributor to this improvement was DSM Anti-Infectives, which introduced more efficient technologies at several sites while at the same time increasing its output. In addition, DSM Fibre Intermediates managed to greatly increase the efficiency of caprolactam production at its plant in Nanjing, China by fully exploiting the technological modifications that had been made in 2008 and substantially increasing the plant's output. However, the efficiency of our DSM Fibre Intermediates plant in Augusta, USA, was reduced as a result of reduced output.

Our total greenhouse-gas emissions are shown in the graph on page 49. They include direct CO<sub>2</sub> emissions (emissions from our own processes), indirect CO<sub>2</sub> emissions (emissions from the generation of purchased electricity and steam) as well as emissions of N<sub>2</sub>O and other greenhouse gases. As a result of the decrease in energy consumption, greenhouse-gas emissions (especially CO<sub>2</sub>) were also significantly reduced. They amounted to 6.7 million tons in 2009, compared to 7.4 million tons in 2008.

## Water consumption

The graph on page 49 shows DSM's global water consumption, divided into surface water, groundwater and potable water.

Consumption decreased by approximately 13% (30,000,000 m<sup>3</sup>) compared to 2008, as a result of a reduction in production volumes at several sites and the closure of DSM Nutritional Products Wuxi, China.



## Raw materials

Our total consumption of raw materials was approximately 4 million tons in 2009. This is a reduction of 18% compared to 2008, mainly as a result of reduced production volumes due to the economic downturn. At 12%, the percentage of renewable raw materials remained the same as in 2008.

## Non-compliances and fines

### Fines

Six DSM sites were given environmental sanctions by the competent authorities. Three of these were fined. The total amount paid in fines amounted to approximately € 95,000, compared to € 110,000 in 2008. The fines were imposed on DSM Anti-Infectives Zhangjiakou, China, DSM Nutritional Products Belvidere, USA and our site in Delft, the Netherlands.

In 2006 we reported an increase in VOC emissions at our DSM Fibre Intermediates site in Augusta, USA. These increased emissions (cyclohexane) occurred in 2005 and prior years and we reported them to the Georgia authorities on our own initiative.

These increases were based on improved analytical methods allowing us to more accurately quantify VOC emissions. New process control equipment was installed in late 2007 to reduce VOC emissions, and further equipment modifications will be completed by mid 2011. DSM and the Georgia Environmental Protection Department reached agreement in late 2009 on the equipment modifications required to reduce VOC emissions at the site and agreed to a fine of \$ 800,000 for the increased emissions reported.

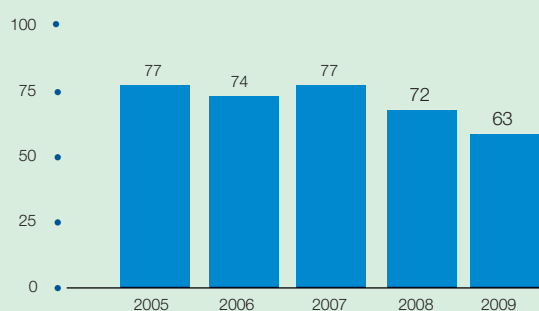
To the best of our knowledge, no other fines or non-monetary sanctions were incurred in 2009.

### Environmental incidents and complaints

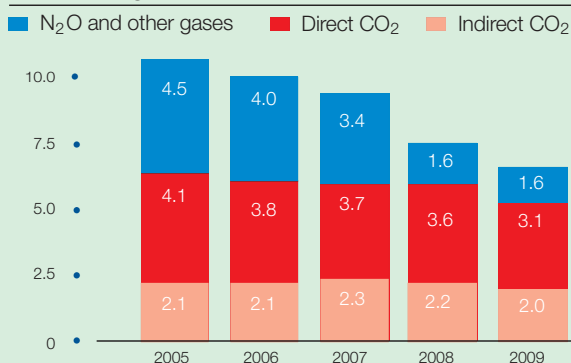
The total number of registered environmental complaints was 79 (78 in 2008), of which 41 were about noise and 23 about odor. Fifteen complaints were registered as 'other'. The total number of environmental incidents was 421, compared to 539 in 2008. Of these incidents, 15 were rated as serious (17 in 2008). Of the total number of 421 environmental incidents, 150 have also been classified as related to process safety. Together with 8 of our Lost Workday Cases in which contact occurred with process chemicals, this adds up to 158 incidents that have a relation to process safety.

This is the second year that DSM is reporting a total number of these so-called 'process-safety-related incidents'. In the absence of agreed uniform industry standards for reporting process-safety-related incidents we have decided to use our own criteria, applying relatively low thresholds. A process-safety-related incident is defined as either a release of hazardous material from an installation above previously defined thresholds, or a lost-workday case due to contact with process chemicals. We are building up experience with the use of this indicator. Therefore it is too soon to draw any conclusions from the fact that the number of process-safety-related incidents in 2009 (158) was significantly lower than that in 2008 (261).

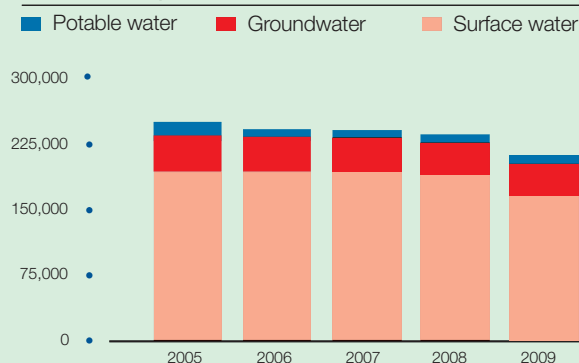
### Energy consumption (in PJ)



### Greenhouse-gas emissions (in million tons)



### Water consumption (x 1000 m<sup>3</sup>)



# Profit

## Exploring new ways of doing business

In this chapter we describe how we work towards greater sustainability on the Profit dimension. The Profit element of our sustainability strategy is not just about maintaining and improving the profitability of our operations in order to secure our continuity as a company; it is also about developing new business models in order to deliver sustainably profitable solutions to more people.

In the overview of our financial performance in 2009 we provide quantitative data on our performance with respect to key indicators on the Profit dimension.

We give examples of our activities in 2009 that show our commitment to sustainability by:

- showing a solid long-term financial performance, thus creating attractive opportunities for investors and securing the continuity of our activities;
- creating an understanding of the world's most important needs through stakeholder engagement and focusing our business and innovation strategies on those needs;
- developing business models to serve our (potential) customers, including the poorest of the poor, in a responsible and profitable way;
- bringing together those parties that are necessary to get the job done, irrespective of whether they are public or private;
- understanding and managing strategic risks;
- developing solutions that anticipate resource scarcity.

Where appropriate, we use icons to indicate how the stories in this chapter relate to the four megatrends identified in our accelerated *Vision 2010* strategy.







## Highlights

The highlights of 2009 on the Profit dimension are the following:

- We ended a challenging year 2009 with a solid last quarter and our cash generation throughout the year was very strong.
- Our full-year operating profit from continuing operations amounted to € 370 million in 2009.
- The performance of our Life Sciences businesses reflects a robust Nutrition business, and the recovery of our Materials Sciences businesses remains on track.
- Our financial position remains solid and we are proposing to maintain our dividend at € 1.20 in cash.
- We explored the business opportunity aspects of the Cradle-to-Cradle concept and continued to explore 'Base of the Pyramid' business opportunities
- We entered into public-private partnerships and developed new business models in order to help eliminate hunger.



## Beyond philanthropy

May 2009 saw the establishment of the Amsterdam Initiative on Malnutrition (AIM). This Dutch public-private partnership is a joint initiative of the Global Alliance for Improved Nutrition (GAIN), the Dutch government, Unilever, DSM, AkzoNobel and Wageningen University. Its goal is to eliminate malnutrition for 100 million people in Africa by 2015.

All partners agree that malnutrition can only be addressed effectively through partnerships. Not one sector, neither public nor private, can solve this problem alone. AIM will work on a careful step-by-step basis to reduce malnutrition in six target countries: Ghana, Kenya, South Africa, Ethiopia, Mozambique and Tanzania. It will develop effective and sustainable approaches to accelerate the delivery of improved nutrition. This will result in more low-cost and high-quality fortified staples and processed products in the marketplace through innovative marketing and effective distribution channels.

Public-Private Partnerships (PPPs) like AIM are business-driven. Their goal is to 'do well by doing good'. Cost-effective nutritional products will be made available in the markets to bring them within the reach of larger populations. In very poor regions, the PPPs initially rely on outside parties that are willing to finance the nutrient deliveries until the consumers are able to generate sufficient income to buy the products themselves.



*“The Dutch government welcomes the opportunity to collaborate with DSM and the other founding partners of AIM in combating malnutrition. We aim to benefit 100 million individuals by 2015 and contribute to achieving the Millennium Development Goals. Building these alliances with the private sector is the modern kind of development cooperation that Development Minister Koenders favors and stimulates.”*

**Stella Ronner-Grubacic**  
**Ambassador for the Millennium Development Goals**  
**Dutch Ministry of Foreign Affairs**

Loek Radix, Director DSM Control and Accounting:

## “Sustainability will soon become a major economic driver”

“Even though 2009 was a challenging year in terms of economic circumstances, we maintained our investments at the *Vision 2010* level. Admittedly, we invested less than in 2008. We had to set clear priorities, but we took care to avoid the ‘penny-wise, pound-foolish’ trap.”


“All projects that were necessary for compliance or License-to-Operate reasons were carried out as we had planned them. We kept our strong commitment to sustainability-related investments, and in prioritizing the remaining projects we simply focused on the investments that would generate the highest returns. I can assure you that many sustainability-related investment projects generate very high returns and a number of them are must-do projects anyway. For the rest, we haven’t canceled any of our investment plans, only the

timing has changed. In some cases, larger investments could be reduced or postponed because we had successfully increased the yield and efficiency of existing assets.

An important sustainability driver at DSM is innovation. More than three quarters of the innovations we launch are sustainable innovations. I’m proud to say the economic downturn has not affected our expenditure on innovation. The number of innovations we launched in 2009 was roughly the same as in 2008.

I predict a strong increase in sustainability-related investments in the years ahead. I expect sustainability will soon become one of the main economic drivers. The world is nearing the end of a long economic wave driven by the development and implementation of micro-electronics and information technology. I’m convinced that the next wave will be driven by sustainability.”



 Team members DSM Control and Accounting, from left to right: Kenneth Oh, Harry Schonewille, Loek Radix and Irene Yang

## Luca Rosetto, Corporate Vice-President Corporate Operations and Responsible Care Aligning cost optimization and sustainability

“The economic downturn gave us the opportunity to accelerate and expand our Advanced Manufacturing program. In the first quarter of 2009 we decided to roll out the program to more sites in a shorter time frame and to extend it to include our supply chains.”

“The focus of the program largely changed from cost cutting to reaching a higher overall effectiveness and to increased agility and flexibility of our manufacturing operations in response to changing demand.

Besides reducing costs it has also led to a better operational result from a sustainability point of view, as we managed to reduce waste, emissions and energy input per unit produced.”



Luca Rosetto front row, fourth from the left, and members of the Corporate Operations and Responsible Care Department





## Opportunities at the Base of the Pyramid

For some years now, DSM has been exploring ways of profitably serving the 'Base of the Pyramid' – the four billion people in the world who earn two dollars a day, or less. The 'BoP philosophy', first articulated by C.K. Prahalad, states that companies have the resources and the expertise to develop new products or services to serve the needs of the poor, thus combining commercial success with poverty alleviation.

Serving the 'Base of the Pyramid' requires a clear understanding of the needs and wants of these four billion poor people, and involves developing innovative business models and sometimes new technologies. This is quite a challenge for a company like DSM. We are essentially a business-to-business (B2B) company and it is by no means obvious how a B2B approach can be made to work in a BoP context. Moreover, we are a traditionally Western-oriented company. This means we have to build up knowledge about markets in BoP countries from scratch. We are doing this in partnership with local NGOs and small and medium-sized enterprises.

Right from the start, we have incorporated our BoP activities in our Business Incubator. This is because we see them as an important new business development that we should nurture. The market potential of our BoP activities will depend on the quality of the solutions we are able to generate and the scope of influence of our local partners. Three interlinked programs (focusing on dairy, renewable energy and cattle feed) are currently running in India, where new business models are being developed and implemented. By the end of 2011 we hope to be able to decide whether these models are sufficiently effective and robust to be copied worldwide.

DSM has a long history in the field of nutrition, serving the ultra-poor in developing nations around the world through its Nutrition Improvement Program. Today, people in South Africa, Zambia, Nigeria, Ghana, Morocco, Central and Latin America have access to fortified basic foods from DSM Nutritional Products through the Nutrition Improvement Program. In 2009 we defined a new strategy that aims to close the gap between mandatory food fortification and market-driven BoP business development.



## Cradle to Cradle: a business opportunity

The Cradle to Cradle (C2C) concept is about creating intelligent product designs allowing perpetual, closed-loop recycling and having a positive impact on ecosystems. Developed in the 1990s by William McDonough and Michael Braungart, the C2C concept is modeled on processes found in nature, where all materials are part of a closed-loop system. The idea behind it is that maintaining materials in closed loops maximizes material value without damaging ecosystems. In 2008, at the initiative of Jan Zuidam, DSM partnered up with Michael Braungart's Environmental Protection Encouragement Agency (EPEA) to jointly develop C2C solutions. The results were promising, and soon the need was felt to approach C2C more from a business perspective.

In order for our C2C efforts to reach their full potential, we will need to develop new business models as well. This is because the closing of a materials loop gives rise to several questions, such as: whose material is it, in what parts of the business chain is value created, who are the 'champions' in the chain and who are the service providers? These questions are being explored with downstream industries.

For DSM, C2C is not a goal in itself; it is a tool on the way to greater sustainability. We listen to the needs that arise in the industry and respond to these needs if we think we can add value. That is why it is very important to carry out a full life cycle assessment for every C2C solution.

*"DSM has the right mix of scientific and business competencies to develop C2C within its portfolio. I fully support DSM in exploring C2C as a new sustainable business opportunity."*

**Professor Michael Braungart,**  
Co-creator of the C2C concept  
Chairman of the Environmental  
Protection Encouragement Agency  
(EPEA)





## Halogen-free plastics

The plastic components of electrical and electronics equipment should be able to withstand high temperatures and meet high flame retardancy standards. This has conventionally been achieved by using brominated flame retardants and polyvinyl chloride.

Over the last few years, a growing number of electronics companies and NGOs have been looking for halogen-free solutions. Their concern with regard to the conventional halogen-containing flame-retardant plastics and polyvinyl chloride is that these pose a risk to human health and the environment if they are improperly disposed of after use.

Because of these concerns, which have been highlighted in for example Greenpeace's quarterly *Guide to Greener Electronics*, there is an emerging market for halogen-free engineering plastics for electronics applications. The main challenge is to achieve the same high product performance (in terms of safety, reliability and aesthetics) and flame retardancy as halogen-containing plastics without the need for investments in new processing equipment.

With the launch of Stanyl® ForTii™ and the commercialization of Arnite® XG in 2009, DSM Engineering Plastics was one of the first companies to offer a complete portfolio of halogen-free engineering plastics for the electronics industry. With these products we overcame technical, performance and cost challenges to produce our new bromine and chlorine free high-temperature plastics. The new products can be used as PVC replacements in wire and cable insulation (Arnitel® XG) and in internal and external connectors (Stanyl® ForTii™).

The main drivers behind this success are DSM Engineering Plastics' unique and patent-protected polymer and additive (flame retardant) know-how, its strong external focus and close partnerships throughout the value chain, its innovation-driven culture and the global cooperation between Original Equipment Manufacturers (OEMs) in the USA, Research and Technology in Europe and manufacturing in Asia.

The development of these products is part of DSM Engineering Plastics' Living Solutions approach to sustainable process and product design, which is based on four key tenets: reducing the use of hazardous substances, improving overall eco-efficiency, promoting recycling and developing bio-based polymers.

In September 2009 two leading non-profit environmental organizations, ChemSec and Clean Production Action, published the report *Greening Consumer Electronics*:

*Moving Away From Bromine and Chlorine*, in which DSM, alongside companies like Apple and Sony Ericsson, is mentioned as a leading company in halogen-free solutions.



## DSM coating in world record-breaking solar module

The solar energy industry is continuously trying to further increase the efficiency of solar modules in order to make solar energy cost competitive with conventional electricity. DSM is contributing to this effort with its KhepriCoat™ anti-reflective coating for solar glass applications. Introduced in 2009, KhepriCoat™ is the second commercial product (after @claryl picture glass) in DSM's nanotechnology-based Functional Coatings program. Apart from being very durable and flexible, KhepriCoat™ increases the light transmission of solar glass sheets by around 4%, a significant step forward in solar module efficiency.

In September 2009 we were able to announce that KhepriCoat™ had helped the Energy Research Centre of the Netherlands (ECN) to set a new solar energy conversion efficiency world record. A full-size commercial solar module developed by ECN had an energy conversion efficiency of 16.4%, as verified by global certification and testing organization TÜV. This was an impressive 0.9 percentage point higher than the previous world record of 15.5%, which dated from 1998. According to ECN, KhepriCoat™ had contributed significantly to this achievement.

In December, REC (Norway), ECN and DSM managed to push the record even higher: they presented the world's first multicrystalline solar panels with an energy conversion efficiency of 17.0 percent.

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*“The fact that a growing number of electronics companies are looking for halogen-free flame-retardant solutions, and that materials suppliers such as DSM have found ways to provide these solutions without compromising product performance, is an important step on the road to greener electronics and a more sustainable society.”*

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**Iza Kruszewska, Greenpeace International**

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## Theo Jongeling, Business Manager C2C Solutions, DSM Business Incubator Cradle to Cradle: timing is crucial

“This is not the first time DSM has engaged in Cradle to Cradle (C2C) activities. Between 1999 and 2001 we built and operated the world’s first large-scale carpet recycling plant in Augusta in the USA together with Honeywell.”

“This plant, the Evergreen Nylon Recycling facility, converted post-consumer nylon-6 carpet waste into the nylon-6 raw material caprolactam, which could be used to make new nylon-6 of the same quality as virgin nylon-6, preventing any quality loss in subsequent applications.

In 2001 we had to mothball the Evergreen plant due to the unfavorable business and economic conditions for caprolactam in general. In 2006 we sold our share in the facility to Shaw Industries. Shaw has now had the facility C2C-certified by the McDonough Braungart Design Chemistry (MBDC) consultancy and is operating it very successfully.

This success is due in part to a general upswing in ‘green’ initiatives and the very positive appeal of the C2C agenda: industries and consumers worldwide have embraced C2C. We are aware of this sentiment and have invited all kinds of companies to discuss their C2C needs with us. What we hear from them is very encouraging. There is a world of opportunity out there. C2C will induce the need for many innovations in materials in order to make them fit for closed-loop systems, either fully compatible with the biosphere or for technical recycling. To be able to grasp these opportunities, we carried out a project with EPEA in 2009 to screen our current products for C2C-fitness. Based on the outcome, we will have a number of our materials C2C-certified by MBDC. DSM materials are already being used in several C2C-certified products, including a recently introduced C2C street bench. Last but not least, C2C is a great workforce motivator. Employees feel proud to work for a company that helps develop C2C solutions.” (see also page 55).



Theo Jongeling (right), Business Manager C2C-solutions at the Business Incubator, part of the DSM Innovation Center and Rinus van den Berg, Industrial and Architectural Designer DSM Materials Science Center



## Main developments in 2009

In what was undoubtedly one of the most challenging years in DSM's history, we stayed the course and remained fully committed to our customers, innovation and sustainability. After a difficult first half year, DSM delivered improved results in the second half of the year as the Materials Sciences businesses started to recover.

Although our full-year operating profit from continuing operations halved compared to the record performance of 2008, the decline in the core activities was limited to 26%. A continued robust performance from the Nutrition business and the benefits of early actions to improve our competitive position contributed to this performance. Our initiatives to reduce costs delivered over € 150 million in savings during the year, whilst the focus on cash resulted in an unprecedented operating cash flow of almost € 1.3 billion in 2009. Our strong financial position leaves us well placed to capitalize on any opportunity that might arise.

As the company has entered an uncertain 2010, we will continue our strategic transformation into a Life Sciences and Materials Sciences company. We completed the disposal of two businesses during the year and remains committed to exiting the remaining non-core operations. Whilst recognizing the uneven nature of the current economic recovery, we are cautiously optimistic.

The full year 2009 was strongly affected by the impact of the economic downturn. However, the operating result of the core part of DSM (continuing activities, excluding Base

Chemicals and Materials) was down only 26% (from € 595 million to € 438 million). This not only underlines DSM's resilience as a Life Sciences and Materials Sciences company, but also shows our ability to act fast if circumstances so require.

This agility is also reflected in the excellent cash performance in 2009. Total operating cash flow amounted to € 1,276 million, which was substantially more than in 2008, when DSM achieved the best operating profit in our history. On top of that, capital expenditure was reduced by about 25% compared to 2008 and two non-core activities were sold. As a result, net debt more than halved during the year to € 830 million.

We made good progress in 2009 towards two important targets of our *Vision 2010* strategy. Sales in China in 2009 increased to almost USD 1.2 billion, a new record for the company, strongly driven by volumes. We expect to come close to the USD 1.5 billion target for 2010. In 2009 innovation sales were about € 810 million, 35% more than in 2008, which is a good basis to reach the target of € 1 billion additional sales in 2010 compared to 2005.

At year-end we had to recognize a substantial impairment. The goodwill impairment test for Catalytica (part of DSM Pharmaceutical Products) showed that the value in use had significantly decreased compared to earlier years due to the depressed current market conditions and lower future growth rates for the business. As a result of the reduction in the recoverable amount a non-cash goodwill impairment charge of € 154 million was recognized.

	2009	2008
<b>Profit (in € million)</b>		
Unless otherwise stated, these key figures represent total DSM		
Net sales, continuing operations	7,732	9,079
Operating profit plus depreciation and amortization (EBITDA), continuing operations	836	1,209
Operating profit (EBIT), continuing operations	370	769
Capital expenditure including acquisitions	467	739
R&D expenditure	393	394
Net profit	337	577
Cash flow (net profit plus amortization and depreciation)	993	1,028
Operating cash flow	1,276	910
Cash Flow Return on Investment (CFROI in %)	6.1	8.7
Return on capital employed (ROCE in %)	7.2	14.4
Net profit per ordinary share before exceptional items (€)	1.44	3.64
Net profit per ordinary share (€)	2.01	3.45
Dividend per ordinary share (€) <sup>1</sup>	1.20	1.20

<sup>1</sup> Subject to the approval of the Annual General Meeting of Shareholders

Full-year sales were strongly affected by the economic downturn, overall showing a negative organic development of 16%. Sales volumes were lower in all clusters, although in Nutrition this was mainly due to some de-stocking in the value chain in the first half of the year. In the Materials Sciences clusters and in Base Chemicals and Materials, volumes clearly improved in the course of the year, but the operating level is on average still 10 to 20% below the pre-downturn level. DSM Fibre Intermediates, with its strong position in China, is the positive exception with an operating level close to pre-downturn.

The operating profit (€ 370 million) more than halved compared to 2008, but this was strongly dominated by the activities in the non-core Base Chemicals and Materials cluster. Especially DSM Agro went from an excellent result in 2008 to a loss in 2009. DSM Elastomers and DSM Melamine also posted a loss for the year. The core activities in Life Sciences and Materials Sciences, however, showed resilience in this very difficult year.

## Financial

Net profit amounted to € 337 million, which was € 240 million lower than in 2008. Net earnings per share (total DSM, including exceptional items) amounted to € 2.01 versus € 3.45 in 2008.

Net finance costs amounted to € 111 million, which is € 10 million higher than 2008. The effective tax rate for the full year decreased to 23%, being 1% below the previous year, due to changes in the geographic distribution of taxable results.

As a result of our continued strong focus on cash, cash flow from operating activities increased to € 1,276 million for the full year 2009 compared to € 910 million in 2008.

Total cash used for capital expenditure was € 457 million in 2009 which was € 134 million lower than in the previous year (2008: € 591 million).



DSM Investor Relations, from left to right: Petra Volk, Sandra Segers, Giel van Rooijen, Mark Helmsing, Hans Vossen and Marc Silvertand

Net debt ended the year at a level of € 830 million (€ 1,781 million at year-end 2008), mainly as a result of a further reduction in operating working capital. Operating working capital finished the year at € 1,511 million (€ 591 million less than year-end 2008), being 19.5% of 2009 net sales.

## Financial policy

DSM has a policy of retaining a strong balance sheet and limiting financial risks. In the current economic environment this policy enables us to continue the execution of our *Vision 2010* strategy.

We aim for a net debt which in normal times is between 30 and 40% of equity plus net debt (currently the objective is to stay below 30%) and an operating profit before amortization and depreciation that is at least 8.5 times the balance of financial income and expense. This underlines our aim of maintaining our single A long-term credit rating.

An important element of our financial strategy is the allocation of cash flow. We primarily allocate cash flow to investments aimed at strengthening our business positions and to dividend payments to our shareholders. The cash flow is further used for strengthening the Life Sciences and Materials Sciences businesses by means of selective acquisitions.

## Dividend

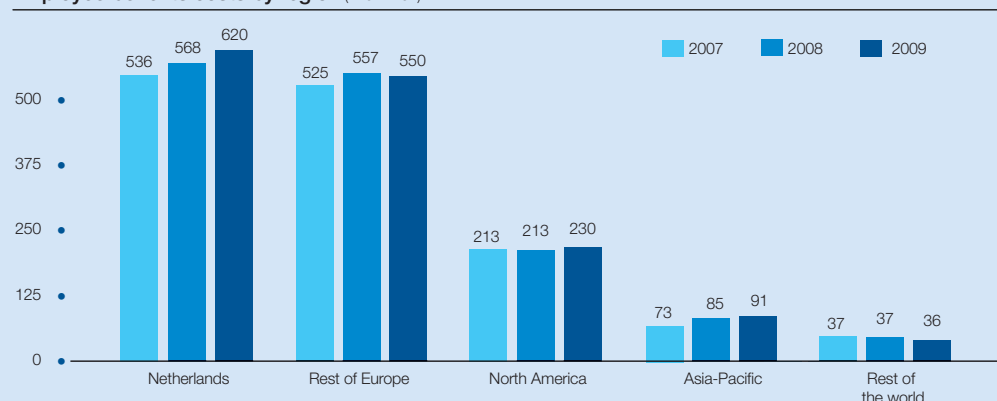
DSM aims to provide a stable and preferably rising dividend to shareholders. The dividend on ordinary shares proposed for the year 2009 amounts to € 1.20 per share (2008: € 1.20 per share). An interim dividend of € 0.40 per ordinary share having been paid in August 2009, the final dividend will amount to € 0.80 per ordinary share (to be paid in cash), subject to approval by the Annual General Meeting of Shareholders.

## Information to investors

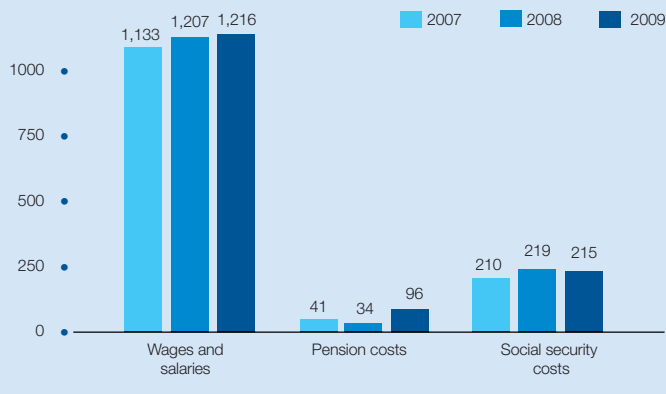
During 2009, we kept the financial community well informed via press releases, presentations, meetings, conferences, site visits and the DSM website. We visited our investors in most financial capitals of the world several times, staging road shows and conferences. The financial community was able to meet with senior management during these events. In these meetings, sustainable entrepreneurship and DSM's view of a sustainable future were on the agenda. We increased our efforts to engage in a dialogue with private retail investors, both directly and through organizations that represent such investors. Every quarter, we published a 'Presentation to Investors' giving insight into our quarterly results and progress on the sustainability agenda.

We were recognized by leading international financial institutes for the quality of the financial information that we provided during 2009 via our website, our annual report, our quarterly presentations and press releases and directly via our spokespeople. We were awarded the FD Henri Sijthoff prize for the best investor relations website in 2009.

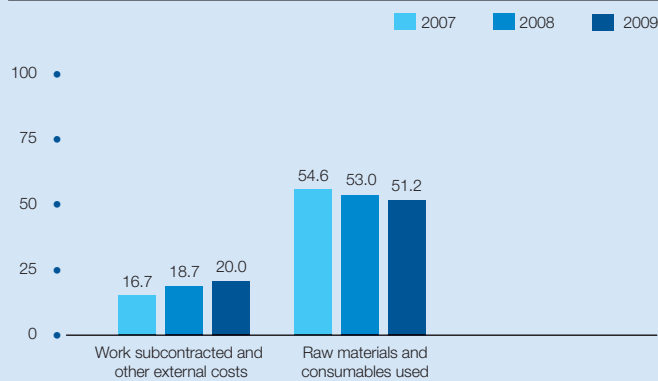
Employee benefits costs by region (in € million)



### Total employee benefits costs (in € million)

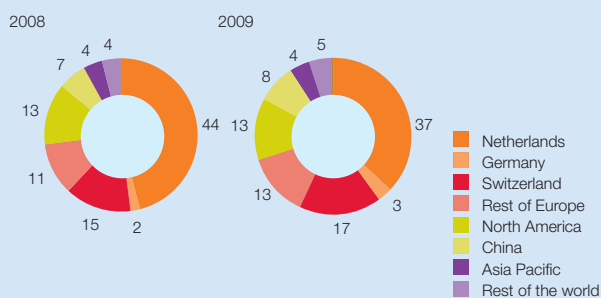


### Costs of goods and services purchased (in % of net sales)



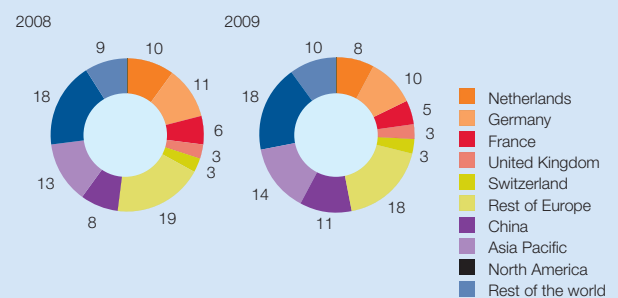
### Net sales by origin, continuing operations

in %



### Net sales by destination, continuing operations

in %





## Governance and risk management

We report extensively about governance and risk management in the Annual Report 2009 and in the corporate governance and risk management section on [www.dsm.com](http://www.dsm.com).

### Governance

DSM's business-steering model remained largely unchanged in 2009, after having been adapted to the *Vision 2010* strategy in 2006. Business groups are the main building blocks of our organization; they have integral long-term and short-term business responsibility and have at their disposal all functions that are crucial to their business success. In order to facilitate selective leveraging of expertise and implementation capabilities in the approach to markets, products and technologies, business groups with the most important commonalities in these areas are grouped into clusters. The business groups within a specific cluster report to a member of the Managing Board. This Board member manages the coherence and leveraging within the cluster and is accountable for the overall performance of the cluster within limits defined by the collective responsibility of the total Managing Board for the overall management of the company. The clusters are the main entities for external strategic and financial reporting. In order to ensure sufficient independence with regard to financial management, the Chief Financial Officer has no business groups reporting to him.

The main aspects of the overall governance framework at Managing Board, corporate and operational level are presented here:

- The Managing Board adheres to the Regulations of the Managing Board.
- In addition, the Managing Board works according to the 'Management Framework for the corporate level'. This implies amongst other things that it adheres to the DSM Values (to be replaced by the DSM Code of Business Conduct in 2010) and applicable corporate policies and requirements. The company's strategic direction and objectives are set in the Corporate Strategy Dialogue (CSD). The framework further defines the roles of business groups, clusters, and central and regional structures. During the year under review, the corporate structure was adjusted. A clear split was made between:
  - Corporate Staff Departments; small, high-level groups, supporting the Managing Board and reporting directly to a Managing Board member;

- Functional Excellence Departments, in which expert capabilities are concentrated and which are led by Functional Excellence Boards, chaired by a Managing Board member;
- Shared Service Departments, in which selected service functions are leveraged and which are steered by Shared Service Boards, chaired by a Business Group Director.

In addition, regional functions were reinforced, especially in the emerging economies. Overall, the reorganization led to considerable cost reductions and it is expected to make the interplay between business groups and central functions more effective. The 'Management Framework' for the corporate level also provides a description of the most important (decision-making) processes, responsibilities and 'rules of the game' at the Managing Board, functional and regional levels and includes the governance relations with the next-higher levels (Supervisory Board and shareholders) and the operational units. In 2009, the framework was adapted to reflect organizational changes.

- The operational units conduct their business within the parameters of the management framework for operational units. This implies amongst other things that the operational units establish the strategy and objectives of their business according to the Business Strategy Dialogue (BSD), in which process various scenarios and related risk profiles are investigated. The framework further stipulates that strategy implementation must take place in line with corporate policies and multi-year plans in several functional areas and in compliance with the Corporate Requirements and Directives.

Compliance with the Corporate Requirements and Directives and the effectiveness of the risk management and internal control system are monitored by the entities themselves and discussed regularly between the Managing Board and the operational units. On average once every three years, the units are audited by Corporate Operational Audit (COA). The director of the COA department reports to the chairman of the Managing Board and has access to the external auditor and the chairman of the Audit Committee of the Supervisory Board. Furthermore, the director of COA acts as the compliance officer with regard to inside information and is the chairman of the DSM Alert Committee, which implements the whistle-blower policy.

**Risk management**

The DSM risk management system is based on the COSO-ERM framework. It has been designed to achieve maximum integration of the risk management process in the normal business processes. It provides for risk assessment tools, controls for risks that commonly occur in the company and monitoring and reporting procedures and systems. The internal controls for the goods and money flows have been built into standard business processes, and tools have been developed to support their implementation and to monitor their effectiveness in operation. In this way, a high level of internal control is achieved efficiently. Simultaneously with the publication of this report, an updated version of the full description of our risk management system and process will be placed on our internet site [www.dsm.com](http://www.dsm.com), in the section on Governance.

# External recognition in 2009

The following is a list of awards and distinctions that DSM or DSM units received in 2009 and that have a direct bearing on DSM's sustainability focus.

DSM's Triple P Report 2008 achieved a GRI A+ rating according to the guidelines of the Global Reporting Initiative (GRI). This is the highest score companies worldwide can achieve for the transparency of their sustainability reporting efforts.

In May 2009 DSM and Bühler AG were jointly awarded the international GAIN (Global Alliance for Improved Nutrition) Business Award for Innovation in Nutrition 2008 for the development of NutriRice®, a new rice fortification technology producing rice kernels that are indistinguishable from unfortified rice in looks and taste and that remain highly nutritious after washing and cooking. The GAIN Business Award for Innovation in Nutrition was set up by GAIN and the International Business Leaders Forum to recognize companies displaying outstanding innovation in the development of new products and services to combat malnutrition, improve public health and promote sustainable development.

On 20 June 2009 DSM KALTIM Melamine received the GOLD Proper Award for its continuous improvements with respect to the environment and its general level of environmental management. The Proper Award is an Indonesian governmental initiative and awards are given per province, in this case the province of East Kalimantan. Out of 28 companies in the Industry & Service category, DSM KALTIM Melamine was the only one to receive the GOLD Award. The company received this award for the second consecutive year.

In the summer of 2009 Triodos Bank, a pioneer and leading innovator in sustainable banking, analyzed 19 companies in the specialty chemicals sector to see whether they were eligible for sustainable investment. The criteria used included the companies' policies, targets and reporting practices with regard to issues such as environmental pollution and animal testing. Only two companies, including DSM, were found to meet all the requirements. DSM had already been approved in a previous sector survey and, based on the 2009 survey, remains in Triodos' investment universe.

On 3 September 2009 DSM regained its number one position in the global chemical industry sector in the Dow Jones Sustainability Index. The Dow Jones Sustainability Index includes over 300 companies from 34 countries that rank among the top 10% in their industries in terms of corporate sustainability. In 2003 DSM was for the first time included in the Dow Jones STOXX Sustainability Index for Europe. In 2004, 2005 and 2006 DSM achieved a number one position in the global index. In 2007 and 2008 it once again ranked among the global leaders in sustainability.

Also in September, two leading non-profit environmental organizations, ChemSec and Clean Production Action, published the report *Greening Consumer Electronics: Moving Away From Bromine and Chlorine*, in which DSM, alongside companies like Apple and Sony Ericsson, is mentioned as a leading company in halogen-free solutions (see also page 56).

The Toansa DSM Anti-Infectives plant in Punjab, India, is an example of a DSM plant that fully reuses or recycles all the water that it uses (see also page 44). In October 2009 it won the Green Manufacturing Award (presented at the 2009 European Manufacturing Strategic Summit in Düsseldorf, Germany) for its water management efforts, among other things.

In the same month DSM was awarded the international AVK Innovation Award in the Environment category for the development of new, ultra-strong air container panels, RP10 panels, made with advanced composite material technology from DSM. The panels are made with DSM's Aeronite® resin and Dyneema®, the world's strongest fiber™. The weight saving offered by the containers can result in a significant drop in fuel consumption for a typical air cargo fleet. See also page 41.

In November 2009, the Product Development and Management Association (PDMA), the leading advocate and comprehensive resource for the profession of product development and innovation, selected DSM as the winner of the 2009 Outstanding Corporate Innovator Award because of its strategic commitment to open innovation and its exceptional skill in continuously creating and capturing value through new product and service development.

In December 2009, China WTO Tribune (a monthly magazine that is supervised by the Chinese Ministry of Commerce) named the 2008 DSM China Triple P Report as one of the best CSR reports from international companies in China. According to the magazine, strong points of this China Triple P Report (DSM China's second) were its clear explanation of DSM's strategy as a response to global trends and its transparent listing of things that went wrong.

DSM topped the Carbon Disclosure Leadership Index (CDLI) for the Netherlands published by the Carbon Disclosure Project. The index highlights the companies listed at Euronext Amsterdam that display the most professional approach to climate change disclosure. High scores indicate good internal data management and understanding of climate-change related issues affecting the company. The Carbon Disclosure Project (CDP) is an organization based in the United Kingdom that works with shareholders and corporations to disclose the greenhouse-gas emissions of major corporations. The CDP represents 475 institutional investors, with a combined USD 55 trillion under management.

On 22 December, DSM KALTIM Melamine received the INA (Indonesian-Netherlands Association) Corporate Sustainability Award 2009 in the *Best Corporate Sustainability for Environment* category for its reforestation project in Bontang, Indonesia.



# What still went wrong

DSM strives to continually improve its performance in the field of safety, health and environment (SHE). However, there is always the possibility of something going wrong. The following list summarizes the most important things that went wrong in 2009.

## Q1

- At DSM Fibre Intermediates in Sittard-Geleen, the Netherlands, an operator lost a finger tip when he tried to put back the chain on the gear wheel of a machine. The machine had been safeguarded before the work was started. The accident happened because the chain slipped out of the operator's left hand.
- At DSM Special Products in Rotterdam, the Netherlands, an operator broke his foot and ankle when he was hit by a forklift truck.
- At DSM Food Specialties in Delft, the Netherlands, yeast broth was emitted through a chimney, resulting in contamination of the surrounding neighborhood and several complaints. The company's prompt clean-up actions and open communications were highly appreciated.
- At DSM Fibre Intermediates in Augusta, USA, operational problems led to hydrogen entering into the steam circuit, resulting in a temporary shutdown and financial damage.

## Q2

- At DSM Pharmaceutical Products in Linz, Austria, a contractor employee suffered thermal burns on his back, shoulder and legs when hot water splashed over him during maintenance activities.
- At DSM Special Products in Rotterdam, the Netherlands, an employee tripped over an electric cable and broke his ankle.
- At DSM Nutritional Products Pentapharm, Brazil, an employee was bitten in the tip of his finger by a snake. Pentapharm uses snake venom proteins to produce therapeutic and diagnostic products for cardiovascular diseases.
- At Citrique Belge in Tienen, Belgium, an operator lost the top of his middle finger when he came too close to a rotating scraper with his left hand.
- A run-away reaction in a storage tank at DSM Pharmaceutical Products in Venlo, the Netherlands, resulted in the release of decomposition products of chloroacetaldehyde. The site was evacuated and all rail and road traffic near the site was interrupted. Seven employees went to the hospital for observation and returned home the same day. The impact on safety, health and the environment was relatively limited, but the incident resulted in financial damage.

- Serious near misses occurred at DSM Engineering Plastics in Pune, India and DSM Fibre Intermediates DCNA in Augusta, USA. Both incidents related to warehousing and loading/unloading activities. In Pune a stacker toppled while loading a pallet to the second level. In Augusta a forklift truck slid off a dock when the truck driver pulled the truck away from the dock.
- At DSM Agro in Sittard-Geleen, the Netherlands, an operator stepped into an open duct with hot condensate and seriously burned his ankle.

## Q3

- At DSM Dyneema in Greenville, USA, two workers who were installing an electrical cabinet were injured when the cabinet shifted. One of them was trapped under the load (approximately 1600 kg) as the cabinet fell on his torso region.
- At DSM Resins in Kunshan, China, a reactor caught fire around the sampling valve. The reactor is in a zoned area and the fire was extinguished in 40 minutes. There were no injuries and there was no obvious environmental impact. A similar incident happened in the resins plant in Augusta, USA, in December.
- At DSM Nutritional Products in Grenzach, Germany, an employee was injured when using a motorized (electrical) pallet trolley. Similar incidents had occurred before and improvements are sought in applying technical standards for this kind of pallet trucks and in setting up training and behavioral programs.
- At DSM Agro in Sittard-Geleen, the Netherlands, sieving equipment started up during maintenance activities. The people who were working in the equipment managed to escape without injuries. The equipment had been safeguarded, but the security pin of the electrical switch broke.
- At the Chemelot site in Sittard-Geleen, the Netherlands, a worker servicing an air conditioning unit fell through the roof of a building that was no longer in use. He just managed to save himself, hanging by his elbows at a height of 8 meters.

## Q4

- In China, two transport incidents involving resins occurred, resulting in some material being spilled on the road and into the soil.
- At DSM Food Specialties in Seclin, France, an operator slipped on a wet floor and broke his collarbone.
- At DSM Nutritional Products in Sisseln, Switzerland, a contractor employee fell from a height of about three meters and injured his nose and wrist when the ladder on which he was working slipped on the wet floor.
- At DSM Special Products in Rotterdam, the Netherlands, a small fire occurred as a result of autoignition of benzoic acid that had leaked into the insulation around a valve due to a defective gasket.

# Progress on implementation of the principles of the UN Global Compact

In 2007 DSM became signatory to the UN Global Compact. We fully support its principles and are continuing to integrate appropriate actions into our business activities. The following table shows the pages in this document on which we report on relevant values and activities.

## DSM – Principles of the UN Global Compact

		Relevant pages in this report
Principle 1:	Support of human rights	Our Values (inside cover) 23
Principle 2:	Exclusion of human rights violations	Our Values (inside cover) 23
Principle 3:	Observance of the right to freedom of association	Our Values (inside cover) 23
Principle 4:	Abolition of all forms of forced labor	Our Values (inside cover) 23
Principle 5:	Abolition of child labor	Our Values (inside cover) 23
Principle 6:	Elimination of discrimination	Our Values (inside cover) 23
Principle 7:	Precautionary environmental protection	6 - 11 34 - 49
Principle 8:	Specific commitment to environmental protection	6 - 11 34 - 49
Principle 9:	Diffusion of environmentally friendly technologies	6 - 11 34 - 49
Principle 10:	Measures to fight corruption	Our Values (inside cover) 23

# About this report

## Reporting policy and justification of choices made

This is our seventh annual Triple P Report, which consolidates our reporting on People, Planet and Profit. In this report, we explain our vision and policy with respect to sustainable enterprise and report on our activities in this field during 2009. In the period from 1993 to 2001, in addition to financial reporting in the annual report and the financial statements, DSM also reported on safety, health and environment in its Responsible Care Progress Report. This Report has since been integrated into DSM's Triple P Report. The Triple P Report for 2009 was adopted by the full Managing Board and approved by our Supervisory Board.

The structure of this report is based on the three Ps of People, Planet and Profit (Triple P). Besides these three categories, we report on our sustainability strategy, our stakeholder engagement activities, and the organization of sustainability at DSM. Furthermore, we discuss the four global trends around which our sustainability strategy is based and which we must successfully deal with as a globally operating Life Sciences and Materials Sciences company.

It is DSM's policy to proactively canvas the views of its employees on issues of material importance to the company. The preparation of this report was facilitated by experts who were supported by a review group comprising employees selected from across the DSM organization.

### Global Reporting Initiative (GRI)

We base our reports on the GRI (Global Reporting Initiative) guidelines. For this report, we used the GRI matrix G3. We believe, as was verified by KPMG, that this report merits G3 level A+. For the GRI matrix for 2009, please see [www.dsm.com](http://www.dsm.com).

### Assurance

Once again we asked KPMG Sustainability to provide limited assurance on the whole Triple P Report.

### Selection of topics

The topics covered in this report were selected on the basis of the GRI guidelines, our own management systems and their relevance and impact for DSM and our various stakeholders. On the basis of the principle of materiality, we have attempted to make a distinction between topics whose importance warrants publication in the printed version (these are topics that are relevant to both DSM and its stakeholders), topics whose importance warrants publication on the Internet (these are topics that are important to either DSM or its stakeholders) and topics that are relevant neither to DSM nor to its stakeholders.

As in last year's report, we group relevant awards and external recognition received by DSM in a separate section. We also report separately on our progress in implementing the principles of the UN Global Compact.

### Scope

The People and Profit data in this report cover all entities that are comprised in the consolidated financial statements of DSM as published in the DSM Annual Report 2009. The environmental information is collected from all production sites that are controlled by DSM.

### Acquisitions and divestments

The financial and personnel data for newly acquired companies are reported from the first full month after the acquisition date. Discontinued operations are excluded from the reported data and comparative figures are restated to provide a fair view.

The safety, health and environmental data for newly acquired companies are reported in the year following the first full year after the acquisition. This is because these companies' reporting procedures first have to be aligned with those of DSM.

### Quality of data

The data for the sites are based on these sites' own measurements and calculations, which are based on definitions, methods and procedures established at corporate level. The year-on-year comparability of the data can be affected by changes in the portfolio as well as by improvements that have been made in the measurement and recording systems at the various sites. Whenever this is the case, it is stated in the report. Details for the individual sites are published on [www.sustainability.dsm.com](http://www.sustainability.dsm.com), together with an explanation of the definitions used. Whenever a restatement of data is required, we include all relevant years in the restated data.

### Manner of reporting

Quantitative data are reported per site. All data are consolidated at corporate level by the relevant departments. The working group for the Triple P Report was made up of representatives from those departments. The qualitative reports on various subjects were provided by experts throughout the organization.

# Supervision by DSM's Supervisory Board

Given DSM's core value that everything the company does should contribute to a more sustainable world, and given the fact that according to the amended Dutch corporate governance code the Supervisory Board should supervise corporate social responsibility issues that are relevant to the company, the Supervisory Board decided to install a dedicated Corporate Social Responsibility (CSR) Committee, chaired by Louise Gunning-Schepers. The CSR Committee will prepare discussions by the Supervisory Board on the supervision of the Managing Board with regard to formulating, developing, implementing, monitoring and reporting on DSM's social and environmental policies.

The Supervisory Board decided that the DSM Triple P Reports for 2009 and subsequent years will be pre-discussed by the CSR Committee before they are submitted for approval to the Supervisory Board.

The 2009 Report was discussed by the Supervisory Board during its meeting on 23 February 2010.

Taking into consideration the Assurance report by KPMG, including its recommendations, the Supervisory Board approved the 2009 Report.



# Independent assurance report

## To the readers of the DSM Triple P Report 2009

We were engaged by the Managing Board of Royal DSM N.V. to provide assurance on DSM's Triple P Report for the year ended December 31, 2009 of DSM (further referred to as 'the Report'). The Report, including the identification of material issues, is the responsibility of the company's management. Our responsibility is to issue an assurance report on the Report.

## What was included in the scope of our assurance engagement?

Our engagement was designed to provide the readers of the Report with:

- reasonable assurance on whether the financial data in the Profit Key Figures for 2009 on pages 58 to 61 are properly derived from the 2009 financial statements of Royal DSM N.V., for which the independent auditors issued an unqualified audit opinion;
- limited assurance on whether the information in the Report (excluding the financial data named above) is in all material respects fairly stated in accordance with the reporting principles on page 68.

Procedures performed to obtain a limited level of assurance are aimed at determining the plausibility of information and are less extensive than those for a reasonable level of assurance. To obtain a thorough understanding of the financial results and financial position of Royal DSM N.V. the reader should consult the DSM audited financial statements for the year ended 31 December 2009.

## Which reporting criteria did DSM use?

DSM applies the Sustainability Reporting Guidelines of the Global Reporting Initiative (G3) together with internal corporate reporting guidelines as detailed on pages 68 of the Report. It is important to view the performance data in the context of this explanatory information. We believe that these criteria are suitable in view of the purpose of our assurance engagement.

## Which assurance standard did we use?

We conducted our engagement in accordance with Standard 3410N 'Assurance engagements relating to sustainability reports' of the Royal Netherlands Institute of Register Accountants. Amongst other things, this standard requires that the assurance team members possess the specific knowledge, skills and professional competencies needed to understand and review the information and that they comply with ethical requirements, including independence requirements.

## What did we do to reach our conclusions?

For the financial data we reconciled the financial data in the Profit Key Figures for 2009 (on pages 58 to 61) with the audited 2009 financial statements of Royal DSM.

For all the other information we:

- performed a media analysis and internet search on environmental, safety and social issues relating to DSM, to obtain information on relevant sustainability issues in the reporting period;
- reviewed the systems and processes for information management, internal control and processing of the qualitative and quantitative information in the report, at corporate level;
- interviewed relevant staff at corporate level responsible for the reported information on specific issues in the report, including sustainability strategy, employee engagement survey, animal studies, supplier program;
- collected and reviewed internal and external documentation to determine whether the qualitative information is supported by sufficient evidence;
- reviewed the environmental data submitted by all sites for central aggregation, together with an assessment of the quality of the data validation process at corporate level;
- reviewed the results of environmental data reviews which formed part of the Operational Audits at key DSM sites in 2009 carried out by the Corporate Operational Audit department of DSM;
- reviewed the environmental data trends and the explanations provided in the report and discussed these with management at corporate level;
- checked the GRI application level declared by DSM on page 68.

During the assurance process we discussed changes to the various drafts of the Report with DSM, and reviewed the final version of the Report to ensure that it reflected our findings.

## What are our conclusions?

Based on the procedures performed as described above we conclude that:

- the financial data in the Profit Key Figures for 2009 on pages 58 to 61 are properly derived from the 2009 financial statements of Royal DSM, for which the independent auditors issued an unqualified audit opinion;
- in accordance with the reporting principles on page 68 and in all material respects, the information in the Report (excluding the financial data named above) does not appear to be unfairly stated.

## What else did we observe?

Without affecting the conclusions presented above, we would like to draw readers' attention to the following.

In 2009 DSM started to determine the eco-footprint of a majority of DSM's innovations and the company has disclosed this information by an ECO+ score. This information can form the basis for disclosing the related eco-footprint for DSM's future product portfolio. As explained in the Report DSM strives to carry out LCAs for all of its products. We recommend that DSM provide the reader of the Report with a comprehensive view of the eco-footprint for the whole product portfolio.

Amsterdam, 23 February 2010  
KPMG Sustainability

Drs. W.J. Bartels RA (partner)



 Members of the DSM Triple P working group, clockwise: Karin Straus, Joan Geerts, André van der Elsen, Robert Donker, Rob Dirix, Jacqueline van Zundert, Henk Rhebergen, Marc Silvertand, Jan Berends, Herman Betten and Peter Sampers (not in the picture: Joost Dubois and Fokko Wientjes)

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DSM officially committed itself to the Responsible Care® Program in 1991. By doing this, the company has undertaken to continuously work on improving its performance in the field of safety, health and the environment.



World Business Council for  
Sustainable Development

DSM is a member of the World Business Council for Sustainable Development and the China Business Council for Sustainable Development.



In 2009, DSM was named the sustainability leader of the global chemical industry sector in the Dow Jones Sustainability Indexes.





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