Life Sciences and Materials Sciences

DSM at a glance

Factbook 2012
DSM, the Life Sciences and Materials Sciences company

Our purpose is to create brighter lives for people today and generations to come. We connect our unique competences in Life Sciences and Materials Sciences to create solutions that nourish, protect and improve performance.

DSM uses its Bright Science to create Brighter Living for people today and for generations to come. Based on a deep understanding of key global trends that are driving societies, markets and customers, DSM creates solutions to some of the world’s great challenges, thus adding to both its own and its customers’ success.

DSM believes that its continued success will be driven by its ability to create shared value for all stakeholders, now and in the future. It creates sustainable shared value by innovating in ways that allow its customers to provide better People, Planet and Profit solutions – solutions to the challenges facing society, the environment and end-users. In this way, DSM’s customers derive value from being able to offer end-users improved products; society and the planet derive value from the impact of more sustainable, longer-lasting, safer, healthier and more nutritious alternatives; and, as a result, DSM and its shareholders derive value from stronger growth and profitability. Finally, DSM’s employees feel engaged and motivated both through the contribution they make to a better world and the success this creates for the company in which they work.

Royal DSM is a global science-based company active in health, nutrition and materials. By connecting its unique competences in Life Sciences and Materials Sciences DSM is driving economic prosperity, environmental progress and social advances to create sustainable value for all stakeholders. DSM delivers innovative solutions that nourish, protect and improve performance in global markets such as food and dietary supplements, personal care, feed, pharmaceuticals, medical devices, automotive, paints, electrical and electronics, life protection, alternative energy and bio-based materials. DSM’s 22,000 employees deliver annual net sales of around € 9 billion. The company is listed on NYSE Euronext. More information can be found at www.dsm.com.
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DSM has transformed itself into a leading Life Sciences and Materials Sciences company that is active in health, nutrition and materials and creates value for its customers by helping them provide solutions to the world’s great challenges. DSM uses its bright science to create brighter lives for people today and generations to come by providing the ingredients to develop innovative more sustainable, healthier, more nutritious and better performing products.

DSM has a very strong starting position to realize its ambitious growth targets as set in its strategy for the period till 2015, all based on its strong global market position (with about 40% of its total sales of € 9 billion coming from high growth economies), its unique technological knowledge as a basis for innovation, its strong track record in sustainability, its very solid balance sheet, and the experience and expertise of its 22,000 people.

DSM believes that its continued success will be driven by creating shared value for all stakeholders, now and in the future. It creates sustainable shared value by innovating in ways that allow its customers to provide better solutions serving People, Planet and Profit solutions to the challenges facing society, the environment and end-users. In this way, DSM’s customers derive value from being able to offer end-users improved products; society and the planet derive value from the impact of more sustainable, longer-lasting, safer, healthier and more nutritious alternatives; and, as a result, DSM and its shareholders derive value from stronger growth and profitability.

Finally, DSM’s employees feel engaged and motivated through the contribution they make to a better world and the success this creates for the company in which they work. In short, DSM is a multi-stakeholder-oriented company with a triple bottom line (People-Planet-Profit) creating value for its customers, shareholders and employees as well as society at large.

As a global company, DSM is actively engaged in addressing the same key trends that face all its stakeholders: meeting changing demands arising from global shifts in demographics and technology, mitigating the impact of climate change while searching for new forms of energy and trying not just to feed but also to improve the health of a growing population.

In DSM’s Life Sciences markets, these trends manifest themselves through the related impacts of increasing personal wealth, urbanization and expanding life expectancy. Urbanization drives the consumption of processed foods and the need for a more efficient food chain, while rising wealth translates into increased demand for proteins from meat, fish, eggs and milk - in turn driving demand for DSM’s food and feed products. Food security (access to nutritious food for all people at all times) is one of the main themes to which DSM is contributing. At the same time, a focus on healthy and active aging is driving demand for fortified foods and supplements. And finally, an aging population means increased healthcare spending, which DSM addresses through its engagement in preventive health and services to pharmaceutical companies.

Performance and sustainability are key drivers impacting demand in DSM’s Materials Sciences markets, where the company is accelerating the transformation toward the production and use of materials that are lighter, healthier, safer, stronger and more durable and that have lower environmental footprints throughout their value chains than traditional materials such as steel.

For automotive manufacturers for instance, this transformation means providing more features for drivers while simultaneously reducing the environmental impact of vehicles over their lifecycle. This requires not just lighter materials but also innovations that reduce friction - a factor that is important in other transport sectors as well. Miniaturization and constant innovation still drive the market for electronics manufacturers, but waste and resource availability and efficiency are growing concerns. In order to avoid health risks and reputational problems for their brands, electronics manufacturers want to be able to use materials that not only offer increasingly lower hazards and deliver excellent performance, but are also efficiently recyclable or even bio-based. Similarly, the building and construction industry needs paints and coatings that offer improved quality and appearance while at the same time minimizing health risks and offering exceptional environmental performance.

Bringing DSM’s Life Sciences and Materials Sciences competencies together offers cross-fertilization opportunities allowing further advances. This cross-fertilization is managed through DSM’s Emerging Business Areas (EBAs). A thorough understanding of how advanced materials can be used in the human body to strengthen or replace body parts and accurately deliver medicines is driving DSM’s biomedical materials business. By merging its broad biotechnology capability with its materials businesses, DSM is able to find renewable solutions for the post fossil age by creating bio-based materials and building blocks and by actively working to create commercially viable advanced biofuels that do not compete with the food value chain.

While DSM continues to meet the needs of customers in the mature markets of North America and Western Europe – which remain central to its core business - the company’s investment focus is increasingly on the high growth economies such as Asia, Central and Eastern Europe and Latin America, where DSM expects 70% of its growth up to 2015 to take place. In turn, this means DSM is becoming steadily more international, enabling it to bring a global perspective to the challenges of all its customers. In addition to achieving sustainable, innovative organic growth, DSM will continue to take advantage of opportunities to acquire exciting businesses and to partner with others to the benefit of all its stakeholders. And finally, the company will continue to improve its shareholder returns, supported by its solid dividend policy.
high-quality products that are tailored to meet customers’ performance criteria. DSM’s performance materials are used in a wide variety of end-use markets: the automotive industry, the aviation industry, the electrical and electronics industry, the marine industry, the sports and leisure industries, the paint and coatings industry and the construction industry.

Polymer Intermediates
Strengthening backward integration for DSM Engineering Plastics
The Polymer Intermediates product cluster comprises caprolactam and acrylonitrile produced by DSM Fibre Intermediates (DFI). These products are raw materials for synthetic fibers and plastics. Caprolactam is a key feedstock for DSM Engineering Plastics’ polyamide production. Globally, DFI is the largest merchant caprolactam supplier and the third largest merchant acrylonitrile supplier. In addition, the business group produces ammonium sulfate, sodium cyanide, cyclohexanone and diaminobutane.

Innovation Center
The Innovation Center is an element of the strategy DSM in motion: driving focused growth. It contains the activities of the DSM Innovation Center (including DSM Venturing) and the Emerging Business Areas (EBAs). The EBAs comprise new innovative growth platforms based on the combination of DSM’s competences in Life Sciences and Materials Sciences.

x DSM Biomedical develops novel materials-based solutions to meet the needs of the medical device and biopharmaceutical industries with coatings, drug delivery platforms and a wide range of biomedical materials for use in implantable medical devices.

x DSM Bio-based Products & Services creates solutions for biocconversion of feedstocks for the production of bio-based chemicals and materials and develops the technologies to enable the production of advanced biofuels.

x DSM Advanced Surfaces provides solutions for the development and application of smart coatings that boost performance and/or improve aesthetics across a wide range of industries and applications, including solar glass and the lighting industry.

Nutrition
Continued value growth
The Nutrition cluster comprises DSM Nutritional Products (DNP) and DSM Food Specialties (DFS). The nutrition and food ingredients businesses serve the food and beverage, feed, personal care and pharmaceutical industries. Their activities are based on in-depth knowledge of customer/market needs. With customized formulation activities in more than 44 locations and a marketing/sales presence reaching over 60 countries, customer intimacy is a key success factor. The Nutrition businesses’ technical expertise is based on application knowhow and innovation translating market needs into products and services with new benefits. Technologies in the Nutrition cluster are broad, utilizing DSM’s competences in biotechnology (including fermentation), chemical process technology and particle engineering. DSM has the world’s broadest ingredients portfolio and holds leading positions in many large ingredient markets for animal and human nutrition and health as well as personal care.

Pharma
Leveraging partnerships for growth
The Pharma cluster includes the business group DSM Pharmaceutical Products (DPP), one of the world’s leading custom manufacturing suppliers to the pharmaceutical industry. Many of today’s medicines around the world contain ingredients produced by DPP. The cluster also contains DSM’s 50% interest in the DSM Sinochem Pharmaceuticals joint venture (DSP). DSP was formed from the former DSM business group DSM Anti-Infectives (DAI). DSP is one of the few producers and marketers of beta-lactam active pharmaceutical ingredients with a global presence, using cutting-edge low eco-footprint manufacturing technology.

Performance Materials
Growing via sustainable, innovative solutions
The Performance Materials cluster comprises DSM Engineering Plastics, DSM Dyneema and DSM Resins. These business groups specialize in the manufacture of technologically sophisticated,
Global trends

The global population is expected to grow from 7 billion now to 9 billion by 2050. In addition, it is aging and becoming increasingly urban and wealthy, leading to increased consumption per capita and a bigger claim on the world’s resources. All this comes together in three key global societal trends: a global demographic shift, challenges in the field of climate and energy usage and a growing focus on how to secure health and wellness for all.

Global Shifts
The accelerating shift of wealth from West to East and from North to South is the basis of a whole series of global shifts which are creating a more urban, more connected and more prosperous world—but with huge resource and cultural challenges as a result.

Climate and Energy
The accepted reality that our fossil age is causing considerable change to our climate is driving the search for alternative energy, chemicals and materials sources as well as efforts to reduce resource consumption in a multitude of ways as the world will enter an era of resource scarcity.

Health and Wellness
The impact of a growing, aging, more urban population is being felt across the world, but in remarkably different ways: the drive to improve well-being and increase life span among the growing middle classes of the high growth economies contrasts with the continuing struggle to effectively feed the populations in less well-off parts of the world.

DSM’s focus is on providing its customers with the innovations and sustainable products they need to meet the societal and market demands arising from these trends. By adding to its customers’ success, DSM adds to its own success too.

DSM in motion: driving focused growth
After a long history of successful transformations, DSM has reached a next phase where it delivers on its mission of creating brighter lives for people today and generations to come, driving focused growth and becoming a truly global company.

It is DSM’s ambition to fully leverage the unique opportunities in Life Sciences and Materials Sciences, using four growth drivers (High Growth Economies, Innovation, Sustainability and Acquisitions & Partnerships) and bringing all four drivers to the next level. At the same time DSM aims to make maximum use of the potential of all four growth drivers to mutually reinforce each other and generate a greater number of compelling business opportunities.
Strategic and financial targets

DSM has set itself ambitious targets for the current strategy period. The company has high aspirations, based on an assessment of the opportunities, particularly in high growth economies, innovation, sustainability, acquisitions and partnerships, and aims at accelerated growth and increased profitability.

<table>
<thead>
<tr>
<th>Profitability targets 2013</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBITDA</td>
<td>€ 1.4 - 1.6bn</td>
</tr>
<tr>
<td>ROCE</td>
<td>&gt;15%</td>
</tr>
<tr>
<td></td>
<td>14%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sales targets 2015</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic sales growth</td>
<td>5% - 7% annually</td>
</tr>
<tr>
<td>China sales</td>
<td>from US$1.5bn to US$3bn</td>
</tr>
<tr>
<td>High Growth Economies</td>
<td>from -32% towards 50% of total sales</td>
</tr>
<tr>
<td>Innovation</td>
<td>from -12% to 20% of total sales</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EBA aspiration 2020</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBA sales</td>
<td>&lt; €1bn</td>
</tr>
<tr>
<td></td>
<td>Good progress</td>
</tr>
</tbody>
</table>

For the period 2011 - 2015 capital expenditure can be expected at a level comparable to that in the ‘accelerated Vision 2010’ period (€ 500-550 million per year on average). For the total period, capital expenditure is expected to amount to € 2.5-2.7 billion, of which approximately USD 1 billion in China. In addition, DSM aspires to keep working capital as a percentage of annualized net sales below 19%.

In 2010 DSM set a number of ambitious sustainability aspirations for 2015.

<table>
<thead>
<tr>
<th>Sustainability aspirations 2011 - 2015</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dow Jones Sustainability</td>
<td>Index top ranking (“Gold”)</td>
</tr>
<tr>
<td>ECO+ (environmental performance)</td>
<td>at least 80% of pipeline is ECO+</td>
</tr>
<tr>
<td>ECO+ (environmental performance)</td>
<td>from -34% towards 50%</td>
</tr>
<tr>
<td>Energy efficiency</td>
<td>20% improvement from 2008 to 2010</td>
</tr>
<tr>
<td>Greenhouse Gas Emissions</td>
<td>25% reduction from 2008 to 2020</td>
</tr>
<tr>
<td>Engagement Survey</td>
<td>towards High Performance Norm</td>
</tr>
<tr>
<td>Diversity &amp; People</td>
<td>to be updated in 2011</td>
</tr>
</tbody>
</table>

For 2015 being to move toward 50% of sales, DSM expects over 70% of its growth in the period to 2015 to come from high growth economies.

DSM has a clear focus on China, where the company has set a target to double sales to a level of at least USD 3 billion by 2015. To support this growth DSM intends to invest USD 1 billion in China in this strategy period. DSM will also increase its presence in other markets, doubling or even trebling revenues in India, Latin America and Russia.

Innovation
from ‘building the machine’ to doubling innovation output

Since the announcement of the innovation boost back in 2005, as part of DSM’s Vision 2010 strategy, the company’s increased commitment to innovation has significantly paid off, as shown by the achievement of numerous milestones, the most tangible one being the fact that in 2010 DSM clearly exceeded its target of achieving € 1 billion in additional sales through innovation compared to 2005 (the actual contribution achieved was € 1.3 billion in 2010).

Building on this track record, DSM is taking value creation through innovation to the next level. DSM has adopted a new definition of its innovation target which is more in line with the definition used by other mainstream innovators in the industry: percentage of sales created by new products and applications introduced in the last five years, replacing the previous target of an absolute amount of additional sales through innovation.

DSM’s target is to increase innovation sales from approximately 12% in 2010 toward 20% of total sales by 2015. In 2011 innovation sales increased to 18% of total sales.

Sustainability
from responsibility to a business driver

DSM’s sustainability strategy is strongly connected to the company’s mission to create brighter lives for people today and for generations to come, and to its brand promise of Bright Science. Brighter Living. DSM believes sustainability will be a key differentiator and value driver over the coming decades.

The company is on track to achieve all the sustainability targets it has set for 2015.

Acquisitions & Partnerships
from ‘portfolio transformation’ to ‘driving focused growth’

DSM applies stringent strategic, financial and sustainability criteria to any potential acquisition or partnership. In the screening process a first selection is made on the basis of strategic fit. This results in a shortlist to which DSM applies its financial criteria. A key strategic criterion is that the business or partner should add or increase a leadership position and should add value to DSM in terms of technological and/or market competences.
Strategy

The key financial criteria for acquisitions are a Single A credit rating for DSM, a contribution to cash earnings per share from the beginning and a contribution to earnings per share from year two. An acquisition should also support DSM’s other financial targets.

In the exceptional case that a very attractive acquisition opportunity arises of a size that would put pressure on financial metrics, DSM may be willing to accept a temporary deviation from the credit metrics commensurate with its rating target. However, DSM believes that Single A ratings are the right place to be for the company to ensure sufficient financial and strategic flexibility at all times, and DSM would seek to manage its balance sheet and underlying financials after such an acquisition to allow the company to re-align ratios with Single A ratings within a short period of time.

DSM will look for opportunities to strengthen competences and market positions for the other three strategic growth drivers: expansion in High Growth Economies, Innovation and Sustainability.

Combining growth drivers

Each of DSM’s four strategic growth drivers is important in its own right but they also reinforce one another. By combining multiple growth drivers, DSM will be able to generate a greater number of compelling, high-potential business opportunities.

Organization and culture

DSM is transforming to become a genuinely global organization that is capable of achieving its strategic ambitions. By strengthening and empowering its regional businesses, DSM deepens local market insights and relationships.

In parallel, the One DSM drive progressively enhances knowledge-sharing and collaboration across businesses, functions and regions, enabling DSM to realize the full benefits of scale and diversity.

The business groups are the primary organizational and entrepreneurial building blocks with a focus on customers and markets. The regional organizations strengthen the business groups by providing infrastructure and capabilities. They also cater for local innovation in designated countries and present the One DSM face to the external stakeholders. As a shared responsibility, the regional organizations also support sales growth.

All this is supported and optimized by shared services (providing efficient high quality services in designated areas) and functional excellence groups (offering functional expertise and implementation capabilities). Corporate staff departments support the Managing Board in running the company.

Change agenda

Through its Change Agenda, DSM is developing the culture needed to achieve its strategic ambitions. Building this culture across DSM will lead to a more agile organization that is fit to cope with fast moving developments in the business environment. The three main themes of the Change Agenda are: external orientation, accountability for performance and inspirational leadership. These three themes are supported by DSM’s underlying beliefs in sustainability and diversity.

External orientation and drive for innovation: DSM has anchored its strategy in key long-term trends (global shifts, climate & energy and health & wellness) that drive fundamental societal needs. At the same time, the ‘clock speed’ of business is ever increasing. DSM is convinced that, in order to be able to rapidly adapt to changing industry and customer requirements, the vast majority of its people need to be fully in tune with the external world, not only anticipating customer needs to drive innovation priorities, but also tracking best practices for key business functions, broadening networks, engaging with stakeholder groups, shaping the debate and collaborating with external stakeholders.

Accountability for performance

DSM believes that its work is critical to its customers and that it is therefore important that its employees take ownership and deliver upon the ambitious targets established to meet customers’ needs. Accountability for performance is about people taking responsibility for their actions and for the performance of their teams, about recognizing and celebrating successes, bringing issues to the surface and viewing mistakes as individual and collective learning opportunities.

Inspirational leadership

DSM recognizes the importance of stronger inspirational leadership to lead the company’s further cultural transformation. This leadership is a combination of setting direction by formulating a vision and targets; pursuing this vision and these targets with passion, a sense of urgency and decisiveness; and connecting with people by giving and inspiring trust, being authentic and showing humility.
# Overview key financial data

## Net sales, continuing operations

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>3,370</td>
<td>3,005</td>
</tr>
<tr>
<td>Pharma</td>
<td>677</td>
<td>739</td>
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<tr>
<td>Performance Materials</td>
<td>2,752</td>
<td>2,507</td>
</tr>
<tr>
<td>Polymer Intermediates</td>
<td>1,820</td>
<td>1,398</td>
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<tr>
<td>Innovation Center</td>
<td>60</td>
<td>50</td>
</tr>
<tr>
<td>Corporate activities</td>
<td>369</td>
<td>477</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9,048</strong></td>
<td><strong>8,176</strong></td>
</tr>
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</table>

## Operating profit (EBIT), continuing operations

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>577</td>
<td>551</td>
</tr>
<tr>
<td>Pharma</td>
<td>(8)</td>
<td>3</td>
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<tr>
<td>Performance Materials</td>
<td>162</td>
<td>163</td>
</tr>
<tr>
<td>Polymer Intermediates</td>
<td>339</td>
<td>186</td>
</tr>
<tr>
<td>Innovation Center</td>
<td>(69)</td>
<td>(64)</td>
</tr>
<tr>
<td>Corporate activities</td>
<td>(135)</td>
<td>(87)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>866</strong></td>
<td><strong>752</strong></td>
</tr>
</tbody>
</table>

## Operating profit plus depreciation and amortization (EBITDA), continuing operations

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>735</td>
<td>684</td>
</tr>
<tr>
<td>Pharma</td>
<td>36</td>
<td>61</td>
</tr>
<tr>
<td>Performance Materials</td>
<td>293</td>
<td>283</td>
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<tr>
<td>Polymer Intermediates</td>
<td>380</td>
<td>223</td>
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<tr>
<td>Innovation Center</td>
<td>(57)</td>
<td>(49)</td>
</tr>
<tr>
<td>Corporate activities</td>
<td>(91)</td>
<td>(41)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,296</strong></td>
<td><strong>1,161</strong></td>
</tr>
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</table>

## Capital employed at 31 December

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<thead>
<tr>
<th></th>
<th>2011</th>
<th>2010</th>
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<tbody>
<tr>
<td>Nutrition</td>
<td>3,019</td>
<td>2,035</td>
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<tr>
<td>Pharma</td>
<td>802</td>
<td>888</td>
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<tr>
<td>Performance Materials</td>
<td>2,016</td>
<td>1,774</td>
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<td>Polymer Intermediates</td>
<td>397</td>
<td>354</td>
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<td>Innovation Center</td>
<td>174</td>
<td>112</td>
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<tr>
<td>Corporate activities</td>
<td>173</td>
<td>101</td>
</tr>
<tr>
<td><strong>Total continuing operations</strong></td>
<td><strong>6,581</strong></td>
<td><strong>5,264</strong></td>
</tr>
<tr>
<td>Discontinued operations</td>
<td>-</td>
<td>204</td>
</tr>
<tr>
<td><strong>Total DSM</strong></td>
<td><strong>6,581</strong></td>
<td><strong>5,468</strong></td>
</tr>
</tbody>
</table>

## EBITDA / net sales, continuing operations

<table>
<thead>
<tr>
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<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>21.8</td>
<td>22.8</td>
</tr>
<tr>
<td>Pharma</td>
<td>5.3</td>
<td>8.3</td>
</tr>
<tr>
<td>Performance Materials</td>
<td>10.6</td>
<td>11.3</td>
</tr>
<tr>
<td>Polymer Intermediates</td>
<td>20.9</td>
<td>16.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14.3</strong></td>
<td><strong>14.2</strong></td>
</tr>
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</table>

## Capital expenditure and acquisitions

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>950</td>
<td>153</td>
</tr>
<tr>
<td>Pharma</td>
<td>87</td>
<td>76</td>
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<tr>
<td>Performance Materials</td>
<td>258</td>
<td>118</td>
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<tr>
<td>Polymer Intermediates</td>
<td>81</td>
<td>46</td>
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<tr>
<td>Innovation Center</td>
<td>40</td>
<td>7</td>
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<tr>
<td>Corporate activities</td>
<td>84</td>
<td>51</td>
</tr>
<tr>
<td><strong>Total continuing operations</strong></td>
<td><strong>1,500</strong></td>
<td><strong>451</strong></td>
</tr>
<tr>
<td>Discontinued operations</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total DSM</strong></td>
<td><strong>1,502</strong></td>
<td><strong>476</strong></td>
</tr>
</tbody>
</table>
## R&D expenditure (including associated IP expenditure), continuing operations

<table>
<thead>
<tr>
<th></th>
<th>€ million</th>
<th>as % of net sales</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011</td>
<td>2010</td>
</tr>
<tr>
<td>Nutrition</td>
<td>200</td>
<td>174</td>
</tr>
<tr>
<td>Pharma</td>
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<td>62</td>
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<tr>
<td>Performance Materials</td>
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<td>123</td>
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<tr>
<td>Polymer Intermediates</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Innovation Center</td>
<td>42</td>
<td>31</td>
</tr>
<tr>
<td>Corporate activities</td>
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<td>19</td>
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<tr>
<td><strong>Total</strong></td>
<td>476</td>
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## Workforce at 31 December

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<thead>
<tr>
<th>(headcount)</th>
<th>2011</th>
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<tbody>
<tr>
<td>Nutrition</td>
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<tr>
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<td>Innovation Center</td>
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<tr>
<td>Corporate activities</td>
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<td><strong>Total continuing operations</strong></td>
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<td>Discontinued operations</td>
<td>-</td>
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</tr>
<tr>
<td><strong>Total DSM</strong></td>
<td>22,224</td>
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</table>
**Business and trends**

The Nutrition cluster concentrates on the food and beverage, infant nutrition, dietary supplements, animal nutrition and personal care ingredients markets. These markets are experiencing many of the same global trends that are impacting DSM as a whole, but also specific business and societal developments that are profoundly shaping the future:

- consumer demands for convenient and indulgent products
- deepening concern about the health and wellness of rapidly aging populations
- emerging demand patterns in high growth economies
- sustainability and food safety concerns
- consumers’ growing desire for natural ingredients (‘clean label spirit’)

Sustainability and food safety concerns are leading regulators to apply stricter standards to the oversight of product content, claims, processing methods and emissions. This is a development that will impact producers such as DSM.

The ‘clean label spirit’ in more mature markets, where consumers are asking for fewer E-numbers and ‘no artificial flavors or preservatives’, is a trend that DSM expects to widen over the coming years. DSM will address it pro-actively, although it will not represent a major part of demand for some time.

Against the background of the above-mentioned trends, DSM expects that the fastest future growth will come from high growth economies, and that the established economies remain vital not only as the largest markets but also as the central drivers of product innovation (especially the US and Western Europe).

What is clear is that future growth in this industry will be partly driven by innovation. The total ingredients sector is growing faster than global GDP. There is also a divergence between well established ingredients and forms and more innovative ones. Growth is higher than GDP growth in markets for innovative solutions, such as new enzymes or new forms of established ingredients. In more established ingredients, such as ascorbic acid (generic vitamin C), growth is at or even below GDP growth. However, this is accompanied by a continuous drive toward more quality, reliability, traceability and sustainability, enabling premium suppliers such as DSM to further expand their market share.

**The Cluster**

The Nutrition cluster comprises the business groups DSM Nutritional Products and DSM Food Specialties.
DSM Nutritional Products

About DSM Nutritional Products

DSM Nutritional Products is the leading supplier of vitamins, carotenoids, nutritional ingredients, UV filters and premixes for human and animal nutrition and health. It also has the most complete feed enzymes portfolio worldwide. Its main customers are global, regional and local feed/premix companies, animal protein producers and food, beverage, dietary supplement, pharmaceutical, personal care and flavor/fragrance companies.

Market Animal Nutrition & Health (2011)

Animal Nutrition & Health addresses the nutritional additives segment of the feed ingredients market which is estimated at € 8.5 billion in 2011. Most relevant markets are carotenoids, feed enzymes and vitamins. Average market growth is 2-4%.

Main customers (Animal Nutrition & Health)

- Global players in feed / premix and animal protein producers (e.g. Nutreco, Cargill, Tyson, CP, BR Foods, AHIC)
- Many midsize local and/or regional organized feed/premix companies and animal protein producers

Market Human Nutrition & Health (2011)

Within the global food ingredients market, estimated at € 42 billion in 2011, Human Nutrition & Health largely addresses the nutritional ingredients part. This is the fastest growing segment (4-5%) of the food ingredients market with close to € 11.3 billion in 2011.

Main customers (Human Nutrition & Health)

- Large world class food companies (e.g. Nestlé, Coca Cola, Kraft, Unilever, General Mills, Pepsico, Danone, Mead Johnson etc.)
- World class dietary supplement companies (e.g. Pfizer, Bayer, etc.)
- Regional/local medium sized food, dietary supplement companies

Key Drivers Profitability

- Leadership in global markets: differentiation, innovation, scale, cost, quality.
- Strong customer value proposition - Quality for Life™ program
- Long history of nutrition innovation
- Value strategy
- Premix footprint expansion in high growth economies
- Focus on quality and manufacturing excellence

Key success factors DSM Nutritional Products

- Global sales, marketing and distribution network including global/regional key account management
- Highly motivated and skilled workforce
- Premix Plants global footprint
- Innovation (products, concepts and processes)
- Complete product portfolio and full value chain player
- Strong differentiation
The global Personal Care ingredients market has a size of est. €10 billion. DSM Personal Care is focusing on the active and performance ingredients in sun care, skin care and hair care industries. Average market growth is 3-6%.

Main customers (Personal Care)
- Global leading cosmetic companies (e.g. Unilever, Procter & Gamble, L’Oreal, Beiersdorf, Johnson & Johnson, etc.)
- Regional/local medium sized cosmetic companies
- Contract manufacturers and distributors within the cosmetic industry

Main Competitors DNP
DSM is the only company to offer the complete value chain of straight, forms and pre-mixes. In addition DSM provides a broad range of cosmetic ingredients. All competitors cover only part(s) of the value chain.

Typical ones are BASF, Adisseo, NEPG, NHU, NCPC, XP & Shijiazhuang Weishen for vitamins & carotenoids, DuPont for enzymes.

Most attractive markets DNP
The high growth economies with big population represent substantial growth opportunities for the nutrition and personal care business, we are actively expanding our business in the high growth economies while extending our competitive advantages continuously in Europe and North America.

Current DSM Market position
DSM holds leading positions in the ingredient markets for human and animal nutrition & health and for personal care.

Strategy
- Through operational excellence, DSM Nutritional Products must maintain a cost position that is at least on par with the competition. This means continuing to look for process innovations and improvements, rigorous site selection, and pursuing ‘asset light’ strategies.
- Continued differentiation in the market is the key to capturing value and margin growth. DSM Nutritional Products will continue to be the premium player in the sector, pursuing product and process innovation by making optimum use of its technology. Connecting technological advances with consumer trends and customer needs, DSM remains the innovation front-runner in nutrition.
- The company will also look to grow by extending partnerships and via acquisitions. This will focus on complementary ingredients, with a bias towards naturals, which can be marketed through DSM’s existing global infrastructure.

Main competitive advantages
- Global reach, proximity to customers
- Scale
- Fully integrated player
- Quality for life™
- Innovation capabilities

Main products
- Vitamins (13 in total), as only player DSM Nutritional Products can supply the complete range of vitamins in the most suitable forms for a wide range of human and animal uses
- A broad range of different carotenoids are manufactured as nature-identical coloring or stabilizing agents
- The most innovative DHA omega-3 and ARA omega-6 products
- The most complete Feed enzymes portfolio in the industry
- Premixes for Animal Nutrition and Health
- Premixes for Human Nutrition and Health
- Cosmetic ingredients for sun, skin and hair care
- Specialty ingredients such as: lutein, lycopene, HyD™, eubiotics, feed enzymes (e.g. Ronozyme® P and ProAct)

“DNP is well positioned to build on its vast experience, science and technical know-how, and extensive global reach. Our innovation, addressing urgent societal needs, is a key driver for creating value for customers and stakeholders around the world.”

Leendert Staal
President

DSM
BRIGHT SCIENCE. BRIGHTER LIVING.
Manufacturing details
- Manufacturing locations (CH, DE, FR, UK, ES, China, US)
- 51 premix facilities globally distributed.
- Worldwide network of 43 sales offices

Technology
- Highly complex multi-step synthesis
- Biotechnology
- Formulation technology, Actilease™
- Natural product synthesis
- Heterogenous catalysis
- Micronisation and encapsulation
- Application in feed, food, nutritional supplements and personal care

Key raw materials / intermediates
- Diverse set of various raw materials.
- Main raw materials are secured through long-term partnerships.

Main capex planned
- Expansion of pre-mix facilities in both ANH and HNH business
- Improvement & expansion projects in large Manufacturing locations

Innovation strategy
- Innovate through entire life cycle
- Continued improvements via incremental application driven innovations
- Open innovation with key customers and other partners

Key innovations
- RONOZYME® ProAct - an enzyme preparation that maximizes protein utilization in feed
- ROVIMIX® MaxiChick™ - a unique poultry feed solution to improve egg fertility, embryo hatchability and chick livability.
- RONOZYME® HiPhos - Helps monogastral animals utilize, otherwise non hydrolysable plant phosphorus which occurs in form of Phytate, thereby reducing the supplementation of expensive mineral phosphates and reduces its environmental impact.
- i-Health brands - the ‘Business to Consumer’ channel is further strengthened with the acquisition of Amerifit and the introduction of brainstrongTM containing DHA.
- Fruitflow® - was launched the first ingredient with a health claim approved by the European Food Safety Authority. Fruitflow® is a tomato-based concentrate that ‘helps maintain normal platelet aggregation, which contributes to healthy blood flow’.
- beta-Carotene 10% Emulsion red - the improved performance offers manufacturers an allergen-free route to colorful beverages, the product is suitable for vegetarians.
- TILAMAR® - most innovative polymers for hair care
- REGU®-FADE - a high performing and fast acting skin brightener
- Life’s DHA™ - a fish free, sustainable source of DHA omega-3 from algae that provides important brain, eye and heart benefits throughout life and can be found in over 500 foods, beverages, infant formulas and supplements worldwide.
DSM Food Specialties

About DSM Food Specialties

DSM Food Specialties is a leading global manufacturer of food enzymes, cultures, yeast extracts and other specialty ingredients for the food and beverage industries. DSM Food Specialties’ advanced ingredients make a considerable contribution to the success of the world’s favorite food brands for the dairy, baking, beverages, and savory segments.

Markets

Food ingredients by application (global)

- Beverages: 16%
- Dairy: 9%
- Bakery: 11%
- Preserves: 9%
- Savory: 6%
- Meat/Fish: 6%
- Oils/fats: 11%
- Confectionery: 18%
- Other: 2%
- Funct. Food: 12%
- Supplements: 1%

Total Food ingredients market adds up to EUR 34bn.

Global market growth 2008-2012 (AAGR)

- Food enzymes: 6-8%
- Cultures and media: 5-7%
- Savory ingredients: 3-5%

The growth in high growth economies is above average.

Most attractive markets

Dairy, baking, savory and beverage industry in North America and Western Europe, with a growing focus on high growth economies such as China, India, Brazil and Russia.

Main customers

- Leading, large, world class food manufacturing companies
- Many medium-sized food and beverage processors

DSM relevant market size (€ 2.8bn)

Main Competitors

DSM Food Specialties main competitors, e.g. DuPont, Chr. Hansen, Novozymes and LeSaffre offer a comparable portfolio or are focused on one of DSM Food Specialties’ market segments.

Current DSM market position

- DSM Food Specialties is leading in food and beverage enzymes, yeast extracts and cultures.
- DSM Food Specialties holds leading positions (#1 or #2) in the relevant segments of its portfolio.

Key drivers of profitability

- Innovation in enzymes, savory ingredients and bio-actives
- Scale and production efficiency

Key success factors of DSM Food Specialties

- Innovation and value differentiation
- Key customer intimacy
- Global distribution network
- Quality and application know-how
Strategy
DSM Food Specialties’ growth strategy is to exploit opportunities of current businesses via organic growth based on radical innovation, geographical expansion in emerging economies, and acquisitions.

Main competitive advantages
- Innovation capabilities
- Unique patent protected ingredients, both on (fermentation) process and applications
- Quality for Life™ program
- Global reach through local distribution and application network

Main products
The product portfolio consists of many branded unique products that can be categorized in:
- Food enzymes
- Cultures and media
- Antibiotic residue tests
- Process flavours
- Yeast extracts

Manufacturing details
DSM Food Specialties has manufacturing locations across the world: Europe (6), Americas (2) and in Asia Pacific (3).

Technology
DSM Food Specialties has a world-class knowledge-intensive technology base, founded on two leading technologies:
- fermentation
- enzyme technology
This technology base is focused on the core functionalities Taste, Texture and Nutrition. DSM Food Specialties uses both classical and modern biotechnology techniques including proteomics to produce its products.

Key raw materials / intermediates
Glucose and molasses.

Main capex planned
- Drying capacity for yeast extracts

Innovation strategy
- Market driven product, process and system innovation
- Continued improvements via incremental application driven innovations
- Open innovation with key customers and other partners

Key Innovations
- DELVO® FRESH – A culture range which helps manufacturers to create authentic tasting dairy products, specifically adapted to local unique taste preferences.
- Maxavor® YE All natural – a unique range of 100 per cent natural savory flavor ingredients. Globally certified as natural, Maxavor YE All Natural combines the functionality of thermal process flavors with a natural ‘yeast extract’ declaration.
- Brewers Compass™ - a unique enzyme solution that enables brewers to produce up to 100 percent barley beers of the highest quality.
- Panamore™ Soft, a new enzymatic solution for the baking industry, designed to improve the shelf life of bread. Containing a patent protected blend of enzymes, Panamore™ Soft helps bakers meet consumer demand for breads that look better and stay fresher for longer.
- Brewers Clarex™ - Prevention of chill haze formation in beer by simplifying the complex and costly beer cold stabilization process
- Maxilact™ LGX - Long lasting clean taste in lactose-free products

“Future growth in the food ingredients industry will be largely driven by innovation. Consumer demand for convenient and indulgent products, health & wellness and sustainability and food safety concerns create clear innovation opportunities. DSM has the leading technologies, in-depth application expertise and world-class facilities to develop (new) solutions in reply to these demands”

Hans-Christian Ambjerg
President
Business and trends

The pharmaceutical market is facing a range of trends and dynamics that are putting existing business models into question and are leading to some fundamental changes in the industry, but which are also providing a number of future growth opportunities for DSM’s Pharma activities.

For innovative pharmaceutical companies, it is becoming more difficult to discover new active molecules which have sufficient additional patient benefits and an acceptable risk profile and which can get approved by the US Food and Drug Administration (FDA) and other regulatory bodies. The cost of developing such molecules is rising, while at the same time health service providers – governments or insurance companies - are under enormous pressure to reduce cost. Medicines are becoming an increasingly important element of total healthcare costs, typically accounting for around 10% of total healthcare spend. As a consequence, both governments and insurance companies are looking to save costs, putting pressure on the total healthcare value chain, including custom manufacturing companies.

Pharmaceutical companies are consolidating, reviewing their business models and product ranges, and competing to develop increasingly ‘niche’, narrow spectrum and specialized drugs, which are often difficult-to-administer drugs and biopharmaceuticals used only in hospitals. Although these can be high value, volumes are lower. However, the intensity of cost pressure and the need to review business models across the pharmaceutical industry is likely to result in above-GDP growth in the pharmaceutical outsourcing market, especially for drugs nearing the end of their (patented) life cycle. The imperative for pharma companies to optimize their asset base is expected to lead to a greater focus on finding experienced and highly qualified partners to take on manufacturing challenges as a supplier.

In most countries increased attention is being paid to the overall consumption of antibiotics. Infectious diseases continue however to be a major life threat, especially in high growth economies, and the beta-lactam anti-infectives continue to be most physicians’ first choice of cure.

The Cluster

The Pharma cluster comprises the business group DSM Pharmaceutical Products (DPP, concentrating on the pharmaceutical outsourcing markets) and DSM’s 50% interest in the DSM Sinochem Pharmaceuticals joint venture (DSP, concentrating on the beta-lactam anti-infectives market) respectively.
DSM Pharmaceutical Products

About DSM Pharmaceutical Products

DSM Pharmaceutical Products (DPP) is a leading provider of custom manufacturing, technologies and development services to the pharmaceutical, biopharmaceutical and agrochemical industries. With the increased focus on outsourced resources, DSM provides sustainable solutions for the future of manufacturing. This group’s business model also includes ownership of registered products including active pharmaceutical ingredients (APIs) as well as finished dosage drugs with ANDA and DMF filings.

Markets

Global outsourcing market

- 41% Contract research
- 22% Primary mfg
- 20% Secondary mfg
- 7% Formulation dev.
- 10% Other

DSM is active globally in the primary and secondary manufacturing of pharmaceuticals and focuses on the innovative (bio)pharma market as well as pharma fine chemicals markets and generic drugs. The pharma outsourcing market has a size of USD 40 bn.

Market growth 2008-2012

The global contract manufacturing market is expected to increase at a CAGR of 9% (2003-2013) with respective segments growing at the following rates:
- primary manufacturing, 7%
- secondary manufacturing, 11%
- biopharmaceutical, 13%.

Source: Kalorama

The average growth of worldwide pharmaceuticals sales for 2010/2011 was 4-5% and for biopharmaceuticals 9%.

Sources: IMS, EvaluatePharma

Most attractive markets

- Biopharmaceutical API (primary, Cell culture-based) manufacturing: Global
- Biopharmaceutical technology licensing and equipment sales: Global
- Biopharmaceutical API (primary, microbial-based) manufacturing: Global
- Chemical API (primary) manufacturing and marketing: Global
- Solid dosage (secondary) manufacturing and marketing: Global
- Sterile dosage (secondary) biopharmaceutical manufacturing and marketing: Global
- Food, personal care and bio/industrial manufacturing products: Global
- Crop protection (primary) manufacturing: Global Current DSM market position

DSM ranked 4th in contract manufacturing revenue globally in 2010. Source: PharmSource, 2011 and Company Public Filings

Main customers

DSM serves 9 of the top 10 global pharmaceutical companies, large biotechs, and mid-size pharmaceutical companies (e.g. Amgen, Shire, etc.) as well as select emerging pharmaceutical companies all over the world.

Main competitors

- Pharma Chemicals: Lonza, BASF, Siegfried, Evonik, Divis, Dr. Reddy’s, Dishman
- Biologics: Rentschler, Boehringer Ingelheim, Lonza, CMC
- Finished Dosage: Patheon, Catalent, Vetter
- BioSolutions: Lonza

Key drivers of profitability

- Focus on end-of-lifecycle drugs and new products pipeline in pharma industry
- Innovative technologies for the future of pharma manufacturing
- Expansion of proprietary product portfolio

Key success factors of DSM Pharmaceutical Products

- Strong pipeline of service contracts based on large strategic customer partnerships
- Continued demonstration of sustainable and innovative solutions for customers
- Increased presence in Asia and High Growth Economies
- Commitment to DSM Quality for Life™ standards
DSM Pharmaceutical Products’ facilities are approved by the US FDA, EMEA, Japan and many foreign regulatory agencies. DSM Pharmaceuticals, Inc. is licensed by the US DEA to manufacture scheduled drugs.

**Technologies**

A broad range of technologies with world-class competencies including: biocatalysis, homogeneous catalysis, mammalian cell lines, fermentation and chiral technologies.

**Key raw materials / intermediates**

- Very diverse set of raw materials, whose procurement is mainly driven by customers’ regulatory filings.
- Sourcing other volumes from low-cost countries such as China and India.

**Main CAPEX**

Our new Brisbane, Australia 70,000 square-foot mammalian biopharmaceutical manufacturing facility, to be operational in 2013, in close cooperation with the Australian Governments (Queensland State Government and the Commonwealth of Australia).

**Innovation strategy**

To maintain a leading and proactive position in delivering customer solutions through innovations in R&D, (bio)chemistry, biologics and fermentation production technologies to support increasingly sustainable outsourcing by pharmaceutical companies, while growing own product portfolio with ANDA and DMF filings.

**Key Innovations**

- **Micro Reactor technology** - unique proprietary high productivity technology for pharma chemicals
- **XD® technology** - unique proprietary technology to improve yield dramatically in biologics
- **Lyo Advantage™ / Liquid Advantage™** - state of the art distribution control system
- **Rhobust®** direct capture technology for biologics

“As we see the pharmaceutical business model continue to shift, outsourcing of manufacturing becomes more of a strategic focus for pharma. With changes in the value chain, DSM offers a range and breadth of services that can enhance our customers’ ability to succeed.”

---

**Strategy**

- Further optimization of DPP’s current assets and re-focus them towards high growth economies in Asia
- Intention to significantly expand range of own products.
- Partnership with another company which has strengths complementary to DPP.

**Main competitive advantages**

- Extensive portfolio of services across the supply chain for small and large molecules and final dosage delivery
- Broad range of innovative and cost-effective technologies particularly in biotechnology including for biopharmaceuticals, including cell culture-based and microbial fermentation as well as green chemistry
- Strong quality and regulatory compliance track record

**Main products / premium services**

DSM Pharmaceutical Products is a global provider of contract manufacturing and development services including:

- Clinical to commercial scale production of Active Pharmaceutical Ingredients (APIs) - chemical and biological
- Clinical trial and commercial scale finished dosage forms and packaging
- XD® proprietary mammalian cell culture production yield optimization technology
- Rhobust® biopharmaceutical harvest optimizing technology
- Innovative technologies in Green Chemistry (e.g. InnoSyn™ route scouting services)
- Micro reactor commercial scale production
- Aseptic liquid filling and Lyophilization, including Cytotoxics
- More complex crop protection actives

**Manufacturing details**

- Groningen, Netherlands, cGMP biologics custom mfg.
- Brisbane, Australia, cGMP biologics custom mfg. (2013)
- Capua, Italy, cGMP microbial fermentation for pharma
- Delft, NL, DSM Biotechnology Center
- Linz, Austria, cGMP/ISO custom manufacturing
- Venlo, Netherlands, cGMP custom manufacturing
- Regensburg, Germany, cGMP scale-up facility
- Geleen, NL, Research & Development
- Greenville, US Sterile and finished dosage products

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- Micro reactor commercial scale production
- Aseptic liquid filling and Lyophilization, including Cytotoxics
- More complex crop protection actives
DSM Sinochem Pharmaceuticals

About DSM Sinochem Pharmaceuticals

DSM Sinochem Pharmaceuticals (DSP) is a leading supplier of raw materials, intermediates and active pharmaceutical ingredients (API) for anti-infectives such as antibiotics (for combating bacterial infections), anti-fungals (for combating fungal infections), and API for other therapeutic classes like cholesterol lowering medicines. DSP is one of the few API manufacturers that continuously invests in R&D and therefore is able to manufacture nearly all beta-lactam APIs and intermediates using proprietary biotechnology. DSP is also the only FDA approved penicillin producer in the Western hemisphere.

Current DSM market position

DSM Sinochem Pharmaceuticals belongs to the largest players in the field of beta-lactams with leading positions in the higher value added segments.

Most attractive markets

Although currently the western economies are the most attractive markets, DSM Sinochem Pharmaceuticals has an increased focus on the rapidly growing markets in Asia and Latin America.

Main customers

Leading large pharmaceutical companies such as GlaxoSmithKline, Sandoz, Teva, as well as local midsized pharmaceutical companies all over the world.

Main competitors

Competition is coming predominantly from Chinese/Indian producers (e.g. United Laboratories, CSPC, Aurobindo) and European producers (e.g. Antibioticos, Sandoz)

Strategy

The business group has retained profitability by implementing significant cost reductions and introducing new technologies, which is an ongoing process in any strategic context.

DSM Sinochem Pharmaceutical's strategy has three main pillars:
- to retain its leading position in the global market for penicillin and penicillin derivatives, further strengthening of the position in especially China is a prerequisite.
- to broaden the portfolio with generic APIs from other therapeutic classes but anti-Infectives, and
- to integrate forward into finished dosage in selected markets.

Markets

The total global anti-infectives market is estimated to be USD 50bn (2010). DSM is mainly active in the beta-lactams (penicillin (SSPs) and the cephalosporins (SSCs)). In addition, DSM sells beta-lactam intermediates such as 6-APA and 7-ADCA.

Market growth 2009-2013

Average overall market growth is 3-5% for semi-synthetic cephalosporins (SSCs) to 4-5% for semi-synthetic penicillins (SSPs) with the highest market growth expected in Asia (SSP 6-8%, SSC 3-5%).

Key drivers of profitability

- Basic PEN price
- Access to regulated markets
- Currency exchange rate
- Production cost PEN
- Conversion margins from PEN to SSPs and SSCs

Key success factors DSM Sinochem Pharmaceuticals

- Market access through global presence/alliances
- New technologies
- Access to China
- Product differentiation / Brand Value
- Operational excellence
- Access to quality oriented customers
The recent formation of the joint venture between DSM and Sinochem of China strongly supports the achievement of these strategic targets, where partners continue to be a potential driver for further growth in line with the overall strategic objectives of DSM’s corporate strategy.

**Main competitive advantages**
- Regulatory and product quality
- Reliability and after sales service
- Enzymatic technology
- Global market access

**Main products**
DSM Sinochem Pharmaceuticals is a leading supplier of active pharmaceutical ingredients such as:
- Penicillin (PEN)
- Intermediates such as 6-amino-penicillanic acid (6-APA), 7-amino-deacetoxycephalosporanic acid (7-ADCA)
- Semi-synthetic penicillins (SSPs) such as amoxicillin and ampicillin
- Semi-synthetic cephalosporins (SSCs) such as cephalexin and cefadroxil
- Nystatin, Atorvastatin
- Process enzymes

**Manufacturing details**
<table>
<thead>
<tr>
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<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penicillin</td>
<td>Mexico</td>
</tr>
<tr>
<td>6-APA</td>
<td>China, Mexico, India</td>
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<tr>
<td>7-ADCA</td>
<td>Netherlands</td>
</tr>
<tr>
<td>SSPs</td>
<td>Spain, Mexico, India</td>
</tr>
<tr>
<td>SSCs</td>
<td>Spain, China</td>
</tr>
<tr>
<td>Nystatin</td>
<td>Capua, Italy</td>
</tr>
</tbody>
</table>

**Technology**
DSM has integrated its competences in biotech and chemistry for the development of a new range of high quality semi-synthetic penicillin and semi-synthetic cephalosporin. The results of this effort are the DSMPureActives™, each produced with our innovative enzymatic technology. The APIs produced via these proprietary biotechnology routes also offer advantages in terms of increased patient safety based on the higher purity of the products, and lower spillage in the processing step from API to finished dosage form.

**Key raw materials / intermediates**
Glucose, sodium phenylacetate/phenylacetic acid, phenyl glycin.

**Main capex planned**
DSM Sinochem Pharmaceuticals is actively pursuing joint ventures in China, resulting in capacity expansion and a significant improvement in economies of scale.

**Key Innovations**
- **Innovation in technology** (implementing best technologies throughout global network)
- **Expansion of DSP portfolio** in generic APIs through product innovation
- **Branding PureActives™** (green routes)

**Benefits of DSMPureActives™**
- Higher yield due to higher purity
- Less overages required due to higher purity and an increased retest period
- Improved machine efficiency due to better flowability
- With larger batch size, testing and administration at QC departments will be reduced
- Relief of registration efforts due to reduced impurity level
- Guaranteed activity of active substance over shelf life
- Waste produced during production is reduced by up to 90%
- Greenhouse-gas emissions reduced by over 50%
- Reduced emissions of residual solvents to air
- Emissions to water are reduced by approximately 50%
- Reduced toxicity of antibiotic ingredient, owing to absence of almost all chemicals and solvents
- Better taste due to the absence of residual solvents

“DSP is a global leader in beta-lactam antibiotics with over 140 years of experience in fermentation. We stand for quality, reliability and compliance; we stand for peace of mind. By leveraging our new partnership with Sinochem we are able to strengthen and further grow our core business as well as to expand our API portfolio and consider a forward integration into finished dosage in selected...”

Lucas Hendrikse
Chief Operating Officer

![Production Facilities](image)
Business and trends

Climate change and the adverse effects of over-dependence on fossil fuels continue to be the most important trends driving the materials industry. DSM’s customers in virtually every sector are seeking products that reduce energy use or emissions in their own operations or, even more importantly, throughout their value chains.

In many cases DSM is active in the business of replacing metals with lighter alternatives, and supports customers who are increasingly seeking polymer solutions that are based on renewable (rather than fossil-based) raw materials and solvent free products and processes that can help create more sustainable value chains.

Resource scarcity, which also impacts costs, is increasingly contributing to these developments. Energy reduction is key. This means not only finding new, less energy-intensive ways to manufacture DSM’s own products, but also enabling energy savings in the application of these products, for example by developing resins systems that require less energy for curing. By providing lighter weight solutions than, for instance, conventional metal structures, DSM products help reduce energy consumption during use as well, thus making a significant contribution to the reduction of energy and carbon footprints across the planet.

An important field of application of performance materials is workplace health and safety. Demand in this area is increasing because workplace health and safety standards are becoming more common across the world as prosperity grows. Another field of application is health and wellness. Here, the main focus is on meeting the needs of an increasing elderly population. These needs require new thinking, and new applications.

Urbanization is an important driver for building and construction - one of the areas in which DSM plays an important role with innovative resins solutions. And finally, concerns about personal safety and global threats have not diminished, which means there is a continuing demand for innovative protective materials.

The world has become multi-polar and more difficult to predict, with rapidly growing prosperous middle classes in many formerly ‘emerging’ countries. Demand for plastics and resins is high and increasing in these markets, not only because manufacturers are seeking to meet growing local needs, but also because global manufacturing has shifted to these countries.

On the safety and sustainability front, the replacement of halogen-based flame retardants in consumer electronics and the replacement of solvent-based resins by water-based resins continues.

The cluster

The Performance materials cluster comprises of DSM Engineering Plastics, DSM Dyneema and DSM Resins.
About DSM Engineering Plastics

DSM Engineering Plastics is a global player in polyamides, and polyesters. These materials are used in components for the electrical and electronics, automotive, engineering and packaging industries.

Markets

- Key segments for semi-crystalline engineering plastics: automotive, electrical & electronics (E&E), (food) packaging, optical & glazing, and consumer/industrial
- Key products are polyamide 6, 66, 6/66, heat resistant resins (HRR), polyesters (PBT, PET), POMs, thermoplastic copolymers

Total global market size for engineering plastics: ~ EUR 27bn in 2010

Market by products

- PA6
- PA66
- PBT.PET
- HRR
- POM
- TPC

Most attractive markets

- Segments: electrical power distribution, electronic components, automotive under the hood, automotive safety systems, flexible food packaging
- Regions: Asia, especially China and India, but also Europe. US is becoming more and more attractive because of increasing drive for sustainable solutions
- Products: heat resistant resins, polyamides

Market growth 2010-2015

- Growth of the engineering plastics market is expected above GDP, with highest growth in Asia Pacific, especially in China, India and Brazil
- The highest growth per product is in heat resistant resins

Key drivers of profitability

- Market growth in key segments and regions
- Sustainable solutions: green materials, weight reduction (replacing metal, fuel efficiency reduced emissions halogen free), driving innovation
- Drive for miniaturization, functionality and performance
- Growth in market share in high-end innovative applications

Key success factors of DSM Engineering Plastics

- Global market leadership in chosen markets
- Global presence (follow customers)
- Cost position
- The right portfolio of engineering plastics matching needs in chosen markets
- Ability to commercialize market-driven innovations
- Product, application and value chain know-how
Examples of customers
- Automotive: Bosch, Valeo, Peugeot, Tata Motors
- E&E: Schneider, Siemens, Samsung, Philips, Nokia
- (Food) packaging: VF Verpackungen, Wipack
- General: Salomon

Main Competitors
- PA6: BASF, Lanxess, UBE
- High temperature PA: Dupont, Kuraray, Solvay, Mitsui
- Thermoplastic copolysters: Dupont, Toyobo

Current Global DSM Market position
- #1 in high temperature polyamides
- #2 in polyamide 6
- #2 in thermoplastic copolysters
- #3 overall in semi-crystalline engineering plastics

Strategy
- Target 10% top line growth annually via strong innovation drive and global expansion
- Further reduce impact of general economic conditions and input costs by focusing on selected high growth segments, global presence and backward integration
- Extend global leadership in high temperature polyamides, polyamide 6 and TPC
- Extend leadership positions in selected end markets

Main competitive advantages
- Global reach through regional network
- Innovation and sustainability drive and excellence in launching innovations
- Upstream integration with DSM Fiber Intermediates (caprolactam for PA6)

Manufacturing details
see world map below

Key products of DSM Engineering Plastics
- Akulon® and Novamid® polyamide 6, polyamide 66, polyamide 6/66
- Stanyl® polyamide 46
- Stanyl® ForTii™
- EcoPaXX™
- Arnite® polyester (PBT, PET)
- Arnitel® copolyester elastomer (TPC)

Technology
Injection molding, extrusion, blow molding

Key raw materials / intermediates
Caprolactam, DAB, Adipic acid, BDO

Main Capex (2011)
- Capability enhancement of Polyester polymerization in Emmen, The Netherlands
- Expansion of compounding capacities in the US and China

Innovation strategy
Create maximal profitable growth as solution provider for performance thermoplastics. Capture opportunities from main societal trends such as Climate and Energy, Functionality and Performance and high growth economies.

Key Innovations
- EcoPaXX™, the ecofriendly new green engineering plastic
- Stanyl® ForTii™, DSM’s new polyamide with the highest heat resistance among DSM’s polymers
- Stanyl® ForTii™, Laser Direct Structuring
- Stanyl® thermoconductive polyamide
- Halogen-free flame retardants engineering plastics
- Akulon® Fuel Lock
- Akulon® for integrated oil sumps
- Arnitel® XG for halogen free FR cables
- Arnitel® Eco, a unique material creating more value with less environmental impact
- Arnite® XL for extreme precision components

“Customers - Our Passion
Brighter Lives - Our Innovations
Greener Planet - Our Drive”

Roelof Westerbeek
President
Markets

Dyneema® is used extensively in ropes, cables and nets in the fishing, shipping and offshore industries. It is also used in safety gloves for the metalworking industry and in fine yarns for applications in sporting goods. In addition, it is applied in bullet-resistant armor and clothing for law-enforcement personnel and the military. A number of new markets are in various stages of scouting & development. The business group will continue to focus on the further development of ultra high-performance polyethylene materials and technologies and on extracting value from its IP assets.

Most attractive markets

- Life protection (e.g. vests, vehicle protection)
- Commercial marine (shipping, offshore, fishing)
- Sports (sails & rigging, fishing lines)
- High performance textiles (cut resistant gloves, clothing)

Market growth 2010-2015

UHMwPE fiber and its derivative products are regarded as high-performance, high-value replacements for more traditional materials such as polyester, polyamide, steel or other high-performance fibers, such as aramids. Competitive products are segment specific. Penetration in existing markets was in pre-recession years over 10% per annum. During the recession, lower demand in industrial segments has impacted growth. However, additional applications, have continued to come on stream, such as lightweight containers for airfreight. The total attainable market therefore is continuously growing as new applications arise.

Examples of customers

- Life Protection: Ten Cate (vests, vehicle protection)
- Commercial Marine: Unitex (lifting slings), Badinotti (fishing nets), Samson (mooring lines)
- Sports: Gottifredi Maffioli (sailing ropes), Pure Fishing (fishing lines)
- High Performance Textiles: Ansell (Gloves)

Main competitors

- Honeywell (Spectra® UHMwPE).
- DuPont (Kevlar® aramid)
- Steel & polyester producers

Current DSM market position

Market leader in UHMwPE, overall leader in high performance fibers in many segments.

Key drivers of profitability

- Market growth and penetration into existing applications
- Success of innovations, new launches
- Dyneema® and Dyneema Purity® brands

Key success factors of DSM Dyneema

- Capability to manage growth, both in hardware and in people
- Ability to commercialize market-driven innovations
- Product, application and value chain knowledge
- Strong, healthy IP position (patents and trademarks)
- Brand value (trust and innovation)
Strategy
- Drive penetration of existing applications, exploiting advantages in total cost of ownership and sustainable solutions to substitute traditional offerings
- Establish strong relationships with key value chain players
- Accelerate entry into targeted new markets (geographies and end-uses)
- Position 2nd brand (Trevo™) as “no-frills” offering in certain segments

Main competitive advantages
- Technical benefits related to physical attributes. Dyneema© is up to 15 times stronger than quality steel and up to 40% stronger than aramid fibers; it floats on water and is extremely durable and resistant to moisture, UV light and chemicals
- Dyneema© brand: highly valued throughout the value chains served
- Innovation capabilities (products, applications, technologies) and excellence in launching innovations
- Clear eco-footprint advantages
- Global commercial and operations footprint

Manufacturing details
- Dyneema© yarn and Dyneema© UD are produced in Greenville, North Carolina (USA) and Heerlen (Netherlands)
- The new tape technology is applied in Greenville (USA)
- DSM is also a partner in a manufacturing joint venture in Japan for fiber
- Trevo™ is produced at ICD Shandong (China)

Technology
Dyneema© is manufactured through DSM’s proprietary gel spinning process. Dyneema® Tape and UD are also subject to extensive patent coverage.

Key raw materials / Intermediates
Ultra High Molecular Weight Polyethylene (UHMwPE)

Main capex planned
- none

Innovation strategy
- Introduce new applications and new products for Dyneema®
- Continue to build and extend Dyneema® brand value
- Protect and strengthen IP positions
- Extend eco- and benefits of product portfolio

Key innovations
- Dyneema® Tape Technology for vehicle and personal protection
- Dyneema® Diamond Technology for optimum cut resistance and wearability of protective gloves

“The Dyneema® brand stands for a business culture which enables its people to do what it takes to consistently deliver the brand promise to all its stakeholders.”

Gerard de Reuver
President

DSM
BRIGHT SCIENCE. BRIGHTER LIVING.
Main markets / applications

Focus for DSM Resins is to combine the ‘winning solutions’ with a market-oriented, innovation-driven organization and already existing strong market positions. Main markets are shown in the graphs.

Market growth 2010 - 2015

Markets for Coating Resins and Composite Resins are long term expected to grow above GDP. However, with ~50% end-market exposure to the Building and Construction market, growth rates are currently lower.

Most attractive markets

Selected key segments: right combination of end-markets, regions and technologies to capture the fastest growth such as industrial wood, industrial metal (can & coil), automotive and optical fiber.

Current DSM market position

DSM has a leading position in many industrial segments:

Coating Resins:
- In Industrial Coatings (wood, powder, UV), DSM is the global leader, together with Cytec. In Metal (Can & Coil), DSM is the global leader together with Evonik. In Architectural / Deco, DOW and BASF are the global leaders.
- In the Fiber Optic Material segment, DSM is the global leader.

Composite Resins:
DSM Resins is the European market leader in unsaturated polyester resins with a market share of ~25%, followed by Reichold, CrayValley and Ashland.

Examples of customers

- Coating Resins: AkzoNobel, PPG, DuPont
- Composite Resins: Menzolit, Beneteau Group

Main competitors

- Coating Resins: BASF, Dow, Cytec, Hexion, 3D Systems
- Composite Resins: Cray Valley, Reichhold, Ashland

Key drivers of profitability

- Market growth in key segments and regions
- Sustainable solutions: lighter, materials and environmentally friendly, safer, solvent free paints
- Growth in market share in high-end innovative applications

Key success factors of DSM Resins

- Global market leadership and presence
- Brand value (differentiation, reliability)
- Ability to commercialize market-driven innovations
- Leading low footprint technology platforms geared towards markets
Strategy

- Coating Resins: Be global no 1 in specialty resins through innovation, focus and dedication.
- Composite Resins: Leading the composite resins industry through dedication and innovation.
- Ambitious strategy will result in strong, double digit growth in net sales and a consistently improving financial performance.

DSM's resins business generates value with and for customers through continuous innovation so that they meet regulatory needs (such as REACH) and respond better to end-user demands for sustainability and quality. DSM will only be able to continue meet these customer demands for innovation with its resins business if sustainable compensation for these efforts is received, beyond the increase in raw material costs. DSM believes a fundamental upward shift in pricing for the resins' value chain has therefore become unavoidable.

Main competitive advantages

- Global reach through regional network
- Innovation and sustainability drive and excellence in launching innovations
- Strong unique technology position (f.i. waterbased resins, high solid resins, optical fiber coatings)
- DSM Resins brand highly valued through value chain served

Main products

The resin primarily determines the properties of the end-products, such as coatings and composites.

Coating Resins:
- Waterborne resins for coatings and inks
- High solid resins
- Powder resins
- UV-curable resins and coatings

Composite Resins:
- Unsaturated polyester / vinyl ester resins
- Thermoset urethane resins
- Sizings and binders

Manufacturing details

- Coating Resins: United States (Illinois, North Carolina, Indiana, Massachusetts, Rhode Island), China, Japan, Germany, Spain, the Netherlands
- Composite Resins: China, France, Italy, the Netherlands and Spain

Main Capex

- 51% stake in AGI Taiwan
- New production facility for composites resins in Nanjing(CN)

Key raw materials / intermediates

Glycols, styrene, maleic-, phthalic anhydride, acrylates, isocyanates, acrylic monomers

Innovation strategy

- Investment to create and execute innovation pipeline
- Market-driven dedicated organization
- Sustainable innovations: providing solutions to global societal issues

Key Innovations

- Desolite® Supercoatings: the newest generation of optical fiber coatings, with improved microbend sensitivity
- RP-10: aluminum replacing panel material made from Dyneema® HPPE fiber and Aeronite® composite resin
- UTVolute®: instant floor coatings
- Uralac® EasyCure: low temperature cure powder coating resins
- Palapreg® ECO: the resin with the highest bio-renewable content (55%) on the market ever without sacrificing processing standards and product performance
- DSM and Novomer Inc. (Waltham, MA, USA) are working on development of a revolutionary coating resin using carbon dioxide (CO₂) as a raw material.

"Driven by the fact that most traditional materials are made of non-renewable finite resources, sustainability and responsible behavior are quickly gaining importance within the resins and functional materials industries. We, as DSM, want to provide new, more sustainable solutions, and look for example at bio-based and bio-renewable products to move towards potentially limitless raw material supplies."

Dimitri de Vreeze
President

DSM
BRIGHT SCIENCE. BRIGHTER LIVING.
Polymer Intermediates

Business and trends

Caprolactam

Caprolactam’s key outlet is polyamide 6, of which approximately 4 million tons per year are produced worldwide. The applications of polyamide 6 are very diverse and cover many end-markets, from carpets and textiles to cars, electrical devices and packaging film. Some of these applications are sensitive to the larger economic cycle (automotive, housing, luxury electronics), while others (such as textiles) are quite stable.

DSM Fibre Intermediates (DFI) is the global leader in the production and supply of caprolactam, the raw material for polyamide 6. It has production facilities on three continents (Europe, North America, Asia) with a total production capacity of nearly 700 kilotons per year. DSM supplies around 20% of the merchant market. DFI offers caprolactam of world-class quality with a high level of service to build long-term valuable partnerships with customers.

Over 40% of all caprolactam produced globally is made using DSM’s proprietary technology.

Acrylonitrile

Acrylonitrile is a key ingredient for fashionable acrylic textile and carpet fibers and for materials (acrylonitrile butadiene styrene, ABS and styrene-acrylonitrile, SAN) for automobile components, electronic devices, toys and sports equipment. The application of acrylonitrile in a wide range of valuable specialty products (for example carbon fibers, water treatment additives, enhanced oil recovery, detergents) is rapidly growing.

With its market share of 25%, DFI is the leading supplier in the European merchant acrylonitrile market while globally it ranks third. Acrylonitrile is produced at the Chemelot site in Sittard-Geleen (Netherlands) in two identical plants, with a total capacity of 275 kilotons per year. The feedstocks for the production of acrylonitrile are air, propylene and ammonia. The on-site availability of these raw materials results in a high level of efficiency. Even the recovered by-products of the production process increasingly contribute to profitability.

The Cluster

The polymer intermediates cluster consists of DSM Fibre Intermediates which supplies key intermediates to DSM Engineering Plastics.


**DSM Fibre Intermediates**

**About DSM Fibre Intermediates**

With its market share of 20%, DSM Fibre Intermediates is the largest merchant caprolactam producer in the world. With plants in the Netherlands, the United States and China, it holds a global market position, a solid partnership in China, excellent performance, technological leadership and a growing secured supply to DSM Engineering Plastics. With a market share of 25%, DSM Fibre Intermediates is a major player in the merchant acrylonitrile market in Europe. In addition, the business group produces ammonium sulfate, sodium cyanide and diaminobutane.

**Markets**

**Caprolactam**, with a total global demand of some 4,300kt (merchant and captive) in 2011, is used predominantly for polyamide 6, a high performance polymer, used in:
- **Textiles** (lingerie, sportswear, leisurewear, fashion wear, travel and outdoor gear)
- **Floor coverings** (carpets, rugs)
- **Industrial yarns** (bias ply tyres, conveyor belts, mechanical rubber goods, ropes, nets, fishing lines)
- **Engineering plastics**: automotive (air-inlets, engine covers), E&E (switches, connectors), equipment housings
- **Films** (food packaging, industrial packaging) Films (food packaging, industrial packaging)

**Main markets Caprolactam (2011)**

- Textiles
- Floor covering
- Industrial yarns
- Engineering plastics
- Film

**Acrylonitrile**’s main applications are textiles, building & construction (acrylic fibers), automotive and E&E (ABS), water purification (acrylamide). Global acrylonitrile demand is around 5200kt.

**Ammonium sulfate** is mainly used as fertilizer, **sodium cyanide** is used in detergents and in vitamins synthesis, **diaminobutane** is an intermediate for Stanyl®.

**Most attractive markets (2011)**

- Polyamide 6 for E&E, automotive and food packaging
- Textiles in Asia (mainly China and Taiwan)

**Key drivers of profitability**

- Global growth of engineering plastics
- Exposure to high growth Asian markets
- High utilization rates

**Key success factors of DSM Fibre Intermediates**

- Low cost operations
- Security of sales (excellent global coverage)
- Reliable supply, consistently good product quality
- Technology leadership
Our goal is to further strengthen our global market position and remain leading in caprolactam and acrylonitrile. Increasing demand and good margins provide a solid base for expanding capacity by building a second, next generation caprolactam line in China.

Ed Sheu
President

Market growth 2011-2016
- Global demand growth of acrylonitrile / caprolactam over 3% per year
- Regional: Strongest growth caprolactam in China / Taiwan > 6% per year
- US and Europe relatively stable
- Half the world’s caprolactam consumption is already consumed in Asia

In 2015, half the world’s caprolactam consumption is expected to be in China / Taiwan.

Main customers
- Caprolactam: manufacturers of PA-6 products such as DSM Engineering Plastics
- Acrylonitrile: manufacturers of acrylic fibers, adiponitrile, ABS/SAN, acrylamide, nitrile rubber

Strategy
- **Caprolactam**: DSM Fibre Intermediates has a threefold approach to capitalize on the opportunities that are arising: doubling production capacity in China; continuously improving existing assets by means of life time extension and variable cost reduction projects; and a firm commitment to sustainability.
- **Acrylonitrile**: maintain our sustainable position as one of the leading players in Europe.

Main competitive advantages
- Global presence
- Cost leadership
- Only global producer in fast growing China
- Reliable partner
- Technology leadership
- Integration with DSM Engineering Plastics (PA6)

Manufacturing details
- Caprolactam over ~700 kt total
  (Geleen, Netherlands; Nanjing, China; Augusta, US)
- Acrylonitrile (Geleen, Netherlands) 285 kt
- Sodium cyanide 28 kt
- Ammoniumsulfate 1200 kt

Technology
DSM has proprietary world-class caprolactam technologies (HSO, HPO+, HPO™, Hydranone™, Oxanone™) with multiple licensees worldwide.

Key raw materials / intermediates
Cyclohexane or phenol, ammonia for caprolactam
Ammonia and propylene for acrylonitrile

Main capex planned
- Second line (200kta), world class caprolactam production line in China (startup end of 2013)
- Life time extension projects
- Sustainability projects efficiency driven investments to save on energy and raw materials and reduce emissions

Key Innovations
- New caprolactam production technologies from bio-renewable resources
- Sustainability programs to radically reduce carbon footprint and reinforce our ‘green’ industry leadership
- Process innovations to lower cost per ton produced
Innovation Center

Business and trends

**DSM Innovation Center**

The DSM Innovation Center was originally set up in 2006 to facilitate the Vision 2010 change program toward an intrinsically innovative organization. It has a business development role, with its Business Incubator and Emerging Business Areas, as well as a leading role in enabling and accelerating innovation within DSM.

**DSM Venturing**

DSM Venturing actively invests in start-up companies that create innovative products and services in health, nutrition, and materials. DSM Venturing plays an important part in DSM’s open innovation policy and invests in activities that are of immediate or potential relevance to DSM business groups and/or the DSM Innovation Center. In addition to direct investments, DSM Venturing is also involved in a number of venture capital funds.

**DSM Licensing**

DSM Licensing aims to create value by assisting DSM business groups and DSM Emerging Business Areas (EBAs) with the initiation and management of collaboration on the basis of intellectual property (IP), including patents and know-how. DSM approaches licensing as a completely integrated, powerful way of creating shared value with partners. In all of DSM’s EBAs licensing will be one of the most important ways in which the company enhances its value proposition and speed to the market. DSM Licensing has been established in the DSM Innovation Center to facilitate such IP intensive collaborations and to serve as a center of excellence for IP-based business.

**Emerging Business Areas**

DSM’s Emerging Business Areas provide strong, long-term growth platforms that optimally combine the available competences in Life Sciences and Materials Sciences. The company currently has three Emerging Business Areas: DSM Bio-based Products & Services, DSM Biomedical and DSM Advanced Surfaces.

**The Cluster**

The cluster contains the activities of the DSM Innovation Center (including DSM Venturing) and the Emerging Business Areas (EBAs).

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“Innovation is in our genes; it is our sport. The DIC mission is to enable and accelerate innovation efforts DSM wide and to create new businesses outside the scope of the current Business Groups, while addressing upcoming needs as a consequence of Global Shifts in the areas of Climate & Energy and Health & Wellness, based on our combined strengths in Life Sciences and Materials Sciences.”

Rob van Leen
Chief Innovation Officer

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<td>Workforce at 31 December (headcount)</td>
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About DSM Biobased Products & Services (DBPS)

At the core of DSM’s strategic focus on Life Sciences and Materials Sciences is our key competency in Industrial Biotechnology (also known as White Biotechnology). This serves as the focal point of our Emerging Business Area. DSM Bio-based Products & Services sees huge opportunities in the move towards a bio-based economy, particularly in bio energies such as cellulosic bio-ethanol and biogas, and renewable building blocks and materials such as bio-based succinic acid and bio-based adipic acid.

**Markets**

**Bio-ethanol**
- Global cellulosic ethanol market expected to grow to 18bn gallons in 2022, ~ US$ 50bn
- Resulting in market value for enzymes & yeasts of ~ US$ 3-5 bn in 2022
- US is leading, forecast ~ 7.5bn gallons of cellulosic bio-ethanol by 2022

**Renewable building blocks**
- Market for renewable building blocks expected to grow to ~ US$ 9bn in 2020

**Current DSM market position**
- Together with POET: Leadership position in the global cellulosic bio-ethanol market
- DSM holds no. 1 position in yeasts for cellulosic bio-ethanol. DSM holds top position in enzymes for cellulosic bio-ethanol
- Unique and essential combination yeasts and enzymes for cellulosic bio-ethanol

**Key drivers of profitability**
- Market potential of renewable solutions
- Eco-footprint: Intrinsically lower carbon footprints
- Drive at customers toward sustainable innovative solutions
- Price, availability and eco-footprint of conventional resources
- Government backing (U.S.A.)

**Key success factors DSM Bio-based Products & Services**
- Time to the market
- Not competing with high capital intensive sector
- High certainty of technological success and high technological spin-off
- Successful alliances throughout the value chain

**Most attractive markets**
- Include the enzyme, yeast and other micro-organism part for the cellulosic bio-ethanol market, currently estimated to be above US$ 0.5 billion, with rapid growth thereafter

**Main customers**
- See customers in DSM’s Nutrition and Pharma cluster for traditional biotech
- See customers in DSM’s Materials Sciences clusters for bio-chems and biomaterials
- Bio refineries (cellulosic bio-ethanol)

**Main competitors**
- Novozymes, DuPont, BASF/CSM, Lallemand, LeSaffre
- DSM has unique combination of enzymes and yeasts which are essential for conversion into cellulosic bio-ethanol
- Clear alliances throughout the value chain needed for success

**Main products**
- Bio-succinic acid
- Enzymes (a/o mixes to break down bio-masses)
- Yeasts (a/o to convert C5/C6 sugars)
- Others not disclosed yet
Strategy

- Dual track approach in cellulosic bio-ethanol & biogas:
  - demonstrate technology in a partnership with POET in cellulosic bio-ethanol (corn crop residue)
  - roll-out technology using a licensing model
  - license yeast technology
  - sell enzymes and yeast
- Microbial platform for production of biodiesel (from Martek acquisition)
- Production of bio-based chemicals
- Focus on green materials with better performance and lower environmental footprint
- Combined Sales target with Biomedical Materials and Advanced Surfaces in 2020 > € 1bn

Main competitive advantages

- Strong partnerships (a.o. Roquette/POET)
- DSM’s unique combinations in biotech and chemistry (biomaterials)
- DSM’s unique combination in enzymes and yeasts (cellulosic bio-ethanol)
- Specialty portfolio such as heat resistant enzymes
- Deep understanding of value chain and end-users because of presence in Materials Sciences

Production / research facilities DBPS

- Delft (Netherlands), Elgin (US), Sao Paulo (Brazil), Shanghai (China), New Delhi (India),
- JV with POET: Sioux Falls (US), Emmetsburg (US)
- JV with Roquette: Lestrem (France), Cassano (Italy)
- Next to these DBPS locations, the DSM business clusters have biotech facilities all over the world

Technology

- Unique combination of biotechnology competences: yeasts, enzymes, bacteria, algea
- Utilizing existing Life Sciences technologies to address today’s needs in renewable energy and sustainable materials
- We also create opportunities to combine our biotechnology knowledge and skills with DSM’s in-depth knowledge of traditional chemistry and manufacturing excellence to bring novel integrated solutions across a variety of industry sectors

Key raw materials / intermediates

- Biobased and renewable products
- Cellulosic biomass e.g. corn crop residue for POET DSM
- Advanced biofuels

Main capex planned

- Through JV Reverdia, DSM and Roquette will expand biobased succinic acid production capacity to ~10kt/yr by end of 2012
- Initial capex of USD 250 million in POET-DSM advanced biofuels JV, on stream in 2013

Key Innovations

- New robust enzymes mix able to break down biomass more efficiently at higher temperatures
- Advanced yeast strain capable of converting C6 / C5 sugars into bio-ethanol
- Bio-based succinic acid and Bio-based adipic acid

“With its unique focus on Life Sciences and Materials Sciences, DSM is well positioned at the forefront of an emerging bio-industrial era brought about by the need for renewable energy sources and sustainable chemistry and materials. We see that viable alternatives can and will be created by harnessing the power of nature in creative sustainable ways.”

Anton Robek
President
About DSM Biomedical

As one of the Emerging Business Areas, DSM Biomedical provides a proprietary product portfolio of coatings, drug delivery platforms and a wide range of biomedical materials that enable the replacement, repair, enhancement and ultimately the regeneration of tissue and organ function in the body. Their novel materials-based solutions are designed to meet the present and future needs of the medical device and biopharmaceutical industries and ultimately improve patient outcomes.

Market: Biomedical materials

The market for biomedical materials is driven by the ongoing market growth in medical devices and the need for more sophisticated pharma drug delivery systems.

The biomedical materials market is estimated at USD 1.5 - 2 bn with growth rates at 10-15% annually (2010).

Medical device market (2010)

The worldwide medical devices market is estimated at approx. USD 150 bn in 2010.

Main customers

- Leading medical device companies
- World class pharmaceutical companies

Most attractive markets

The most attractive market is the USA, followed closely by Western Europe and Japan. China, India and Brazil are of growing importance. In this market, the cardiovascular, the ophthalmology and orthopedics segments are the main focus areas for biomedical materials.

Key Profitability Drivers

- Product pipeline in medical devices and pharma
- Strong societal fundamentals and solutions requirements for continued growth in medical treatments using biomedical materials
- Impact of health insurance policies

Main competitors

- Materials - AdvanSource, Arkema, Bayer MaterialScience, Invibio (Vicrinx), Lubrizol, Ticona, Surmodics
- Drug Delivery - Durect, Evonik, Flamel, pSividia

Typically, competitors only serve one market segment rather than the whole market.

Current DSM market position

- DSM Biomedical has a leadership position in the market for polymer based biomedical materials.
- DSM is the only company worldwide covering all major applications consuming biomedical materials, from coatings and implants to drug delivery systems.

Strategy

DSM Biomedical develops materials-based solutions to meet the present and future needs of the medical device and biopharmaceutical industries, specifically focused on developing solutions for the cardiovascular, ophthalmic and orthopedic markets:

- Biomedical materials - polymers for medical applications including neurostimulation leads, pacemakers, contact lenses, orthopedic implants, stents, implantable sensors among others.
- Coatings - hydrophilic, antimicrobial and non-fouling coating technologies for medical devices such as catheters, with patient comfort as a priority.
- Drug Delivery - resorbable materials that deliver active compounds to targeted parts of the body with a high level of control and chemistry based design.

Key success factors for DSM Biomedical

- Balanced product portfolio
- (Open) innovation competences and network
- Access to medical device and pharmaceutical industry
- In-depth materials and pharma know-how
- Value capturing through broadening of technology/product portfolio and value sharing customer partnerships
DSM Biomedical’s strategy actively exploits open innovation and to set up business models that are typical of knowledge-based rather than production-based businesses.

Main competitive advantages
- Wide range of high quality innovative materials solutions
- Excellent clinical track record in the medical and pharmaceutical field
- IP assets, comprising an extensive patent portfolio, master file data for regulatory submissions and the know how to tailor materials to meet customer needs
- In house, in-depth competences in the Life Sciences and the Materials Sciences
- Extensive network through partnerships in the public and private sector

Main products
Biomedical materials: Bionate® PCU, BioSpan® SPU, CarboSil® TSPCU, Dyneema Purity® Fiber, Elasthane™ TPU, PurSil® TSPU, UHMWPE
Coatings: ComfortCoat® coatings, Vitro Stealth® coatings
Drug delivery systems: Trancerta™ Drug delivery

Manufacturing details
- Manufacturing, and Research and Development centers in Berkeley (USA) and Geleen (The Netherlands)
- Manufacturing center in Greenville (USA) currently in final validation phase

Key raw materials / Intermediates
- Highly diverse set of various raw materials
- Raw materials are a minor element in the knowledge based offering by DSM Biomedical

Main capex planned
- none

Innovation strategy
DSM Biomedical aims to complement cross company competences through open innovation:
- Partnerships with key customers
- Research alliances and cooperations
- Licensing/venturing
- Scientific Advisory Board

Key innovations
- ComfortCoat® coatings - These coatings include innovative hydrophilic coatings that can help improve patient comfort and care.
- Bionate® II PCU - This thermoplastic polycarbonate urethane is an industry-leading medical grade polymer for use in long-term implants and is backed by an established FDA Master File.
- Dyneema Purity® fiber - The Ultra High Molecular Weight Polyethylene fiber is a superior alternative to traditional materials in the orthopedic and cardiovascular fields, 15 times stronger than quality steel with a lower profile, softness and abrasion resistance, the fiber is also available as Dyneema Purity® BLUE, the first 100% colored implantable grade UHMWPE fiber.
- Trancerta™ Drug delivery - A unique drug & biologics delivery system that is non-inflammatory and allows for greater control over the rate and duration of release of the therapeutic payload.
- Vitro Stealth® coating - A non biofouling coating platform that is designed to improve the accuracy and sensitivity of in vitro diagnostics and in vitro and in vivo biosensor applications.
Sustainable, innovative global supply chains in Life Sciences & Materials Sciences are vital as we strive to reach our strategic ambitions and realize our brand promise. The need for long-lasting and meaningful relationships with key suppliers is becoming more important every day - for sustainability, for innovation, and for effective risk management. Our purchasing organization’s mission is therefore to connect customer needs with supplier solutions. By doing this, we extend the value chain to our suppliers, so that they truly contribute to value creation and support our competitiveness in areas such as:

- Sustainability
- Innovation
- Business growth, especially in High Growth Economies
- Security and quality of supply
- New business models and strategic alliances
- Cash management and cost control

**Sustainability and supplier conduct**

We collaborate with our suppliers as a central way to help us achieve our sustainability goals and set our sustainability agenda for the years to come. DSM’s Supplier Sustainability Program is comprised of two main elements - compliance (supplier conduct) and business opportunities (supplier solutions). It has also helped make us a consistent winner in the Dow Jones Sustainability World Index. The program involves a three-step approach with a Code of Conduct (covering > 90% of our external spend), supplier self-assessment questionnaires and supplier audits for large or high-risk suppliers. In addition we increasingly work with our suppliers to develop new ways to achieve our sustainability and innovation goals. For example, we substitute oil-based raw materials with renewable resources, and we have increased our use of renewable energy.

**Supplier management**

Our selection criteria for suppliers include, but are not limited to, the following capabilities:

- Business commitment: their level of strategic alignment, resource allocation, innovation and commitment to price and cost reduction
- Security of supply: whether a supplier has delivered on time and has put supply assurance systems in place
- Sustainability: whether they comply with a code of conduct, and contribute to sustainable solutions for the value chain
- Quality assurance: whether they conduct quality performance for products, services and documentation, and what their response is to non-performance

We work with our suppliers to continuously improve our relationship and performance by:

- Managing key supplier relationships to better utilize the true capabilities of our most important suppliers
- Using our supplier development program to develop the supplier’s true strategic capability
- Conducting regular supplier performance evaluations
- Expecting suppliers to conduct their activities in accordance with our Supplier Code of Conduct and purchase conditions

**About purchasing**

Purchasing is a globally-operating functional group that consists of a central DSM Sourcing unit and Business Group Purchasing departments, under the leadership of the Chief Purchasing Officer. We distinguish two spend areas:

- Chemicals & Utilities, which are the majority of the necessary building blocks for the vast range of DSM products
- Indirect Goods & Services, which cover the most diverse range of purchasing needs for DSM that are not directly processed in our products (Facility Goods & Services, ICT, Physical Distribution, Technical Goods & Services)

The Purchasing organization’s mission is to connect customer needs with supplier solutions. With in-depth knowledge of supply markets and close collaboration with our businesses and suppliers, our Purchasing professionals bring supplier capabilities to DSM in an efficient and transparent way. We ensure the best value by balancing quality of supply, price and risk management (Total Cost of Ownership), and we actively contribute to differentiated business strategies and goals for sustainability, innovation and ‘asset lite’ (capital efficiency).

Our matrix organization aims for world-wide collaboration between all Purchasing employees fully integrated in our businesses. We emphasize a professional, collaborative, challenging and trustworthy approach, which creates competitive advantages by getting the most possible value from our supplier relationships.

**External spend**

Purchasing spend distribution for continuing business

- Highly oil dependant
- Utilities/energy
- Low/moderate oil dependant
- Inorganics
- Indirect
- Natural products

DSM’s external spend in 2011 was € 6.7 bn (which includes changes in inventories and capex related spend).
Koninklijke DSM N.V. (Royal DSM) is a company limited by shares listed on NYSE Euronext, with a Managing Board and an independent Supervisory Board. Members of the Managing Board and the Supervisory Board are appointed (and, if necessary, dismissed) by the General Meeting of Shareholders.

The Managing Board is responsible for the company’s strategy, its portfolio policy, the deployment of human and capital resources, the company’s risk management system and the company’s financial performance.

The Supervisory Board supervises the policy pursued by the Managing Board, the Managing Board’s performance of its managerial duties and the company’s general course of affairs, taking account of the interests of all the company’s stakeholders. The annual financial statements are approved by the Supervisory Board and then submitted for adoption to the Annual General Meeting of Shareholders, accompanied by an explanation by the Supervisory Board of how it carried out its supervisory duties during the year concerned.

The company is governed by Dutch law and its Articles of Association, which can be consulted at the DSM website (www.dsm.com). The General Meeting of Shareholders decides on an amendment to the Articles of Association by an absolute majority of the votes cast. A decision to amend the Articles of Association may only be taken at the proposal of the Managing Board, subject to approval of the Supervisory Board.

DSM has a decentralized organizational structure built around business groups that are empowered to carry out all short-term and long-term business functions. At the operational level, the business groups are the primary organizational and entrepreneurial building blocks. The business groups are grouped into clusters. Business groups within a cluster report to one member of the Managing Board. The clusters are the main entities for external strategic and financial reporting.

This structure ensures a flexible, efficient and fast response to market changes. DSM has a number of functional and regional organizations to support the Managing Board and the business groups. Intra-group product supplies and the services of a number of shared service departments and research departments are contracted by the business groups on an arm’s length basis.
## Share Structure

### Shares and listings

According to the Articles of Association Royal DSM has two types of shares: one class of ordinary shares and two classes of Cumulative Preference shares, series A and B. At this time, next to ordinary shares only Cumprefs A have been issued. The Cumpref B are not issued nor outstanding at this time.

**Ordinary shares Royal DSM**
- issued as per 31 March 2011: 181,425,000 shares
- The average number of ordinary shares outstanding in 2011 was 165,566,944. All shares in issue are fully paid.
- nominal value of € 1.50 per share
- no certificates on these shares are issued, the voting rights are not limited
- listed on the stock market at Euronext Amsterdam

**Cumulative Preference Shares A**
- issued and outstanding in 2010: 44.04 million shares
- not listed on the stock market
- owned by three Dutch institutional investors
- nominal value of € 1.50 per share
- as of 1 January 2011 the annual dividend amounts to € 0.23 per share (4.348% of the issuance price of € 5.2942)

**Cumulative Preference Shares B**
- are not issued nor outstanding at this time
- by virtue of DSM’s Articles of Association, 375,000,000 cumulative preference shares B can be issued
- the DSM Preference Shares Foundation has the right to acquire such preference shares (call option) to a maximum corresponding to 100% of the capital issued in any form other than preference shares B, less one
- the DSM Preference Shares Foundation is independent in accordance with the requirement laid down in Appendix X to the Listing and Issuing Rules or Euronext

Ordinary shares in Royal DSM N.V. are listed on the NYSE Euronext stock exchange in Amsterdam, the Netherlands (Stock code 00982, ISIN code NL0000009827).

Options on ordinary DSM shares are traded on the European Option Exchange in Amsterdam, the Netherlands (Euronext.liffe).

In the United States a sponsored unlisted American Depositary Receipts (ADR) program is offered by Citibank NA (Cusip 780249108), with four ADRs representing the value of one ordinary DSM share.

### Development of the number of ordinary DSM shares

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Issued</td>
<td>Repurchased</td>
</tr>
<tr>
<td>Balance at 1 January</td>
<td>181,425,000</td>
<td>14,957,368</td>
</tr>
<tr>
<td>Changes:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reissue of shares in connection with exercise of option rights</td>
<td>-</td>
<td>(3,568,018)</td>
</tr>
<tr>
<td>Repurchase of shares</td>
<td>-</td>
<td>9,000,000</td>
</tr>
<tr>
<td>Dividend in the form of ordinary shares</td>
<td>-</td>
<td>(2,221,738)</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Balance at 31 December</td>
<td>181,425,000</td>
<td>18,167,612</td>
</tr>
</tbody>
</table>

DSM share prices on Euronext Amsterdam (€ per ordinary share):
- Highest closing price: 46.82
- Lowest closing price: 30.54
- At 31 December: 35.85
- Market capitalization at 31 December (€ million): 6,504
Remuneration

Remuneration policy

The objective of DSM’s remuneration policy is to attract, motivate and retain qualified and expert individuals that the company needs in order to achieve its strategic and operational objectives, whilst acknowledging the societal context around remuneration and recognizing the interests of DSM’s stakeholders. The following elements are taken into consideration:

- DSM strives for a high performance in the field of sustainability and aims to maintain a good balance between economic gain, respect for people and concern for the environment in line with the DSM values and business principles as reflected in the DSM Code of Business Conduct. The remuneration policy reflects a balance between the interests of DSM’s main stakeholders as well as a balance between the company’s short-term and long-term strategy. As a result the structure of the remuneration package for the Managing Board is designed to balance short-term operational performance with the medium and long-term objective of creating sustainable value within the company, while taking account of the interests of its stakeholders.

- To ensure that highly skilled and qualified senior executives can be attracted and retained, DSM aims for a total remuneration level that is comparable to levels provided by other (Dutch and European) multinational companies that are similar to DSM in terms of size and complexity.

- The remuneration policy for the members of the Managing Board is aligned with the remuneration of other senior executives of DSM.

- In designing and setting the levels of remuneration for the Managing Board, the Supervisory Board also takes into account the relevant provisions of statutory requirements, amended Dutch corporate governance clauses, societal and market trends and the interests of stakeholders.

- DSM’s policy is to offer the Managing Board a total direct compensation approaching the median of the labor-market peer group.

Remuneration Framework

<table>
<thead>
<tr>
<th>Element</th>
<th>Vehicle</th>
<th>Performance Measure</th>
<th>Target Pay-out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed</td>
<td>100% Base Salary</td>
<td>Cash</td>
<td>N/A</td>
</tr>
<tr>
<td>Variable</td>
<td>50% Short Term Incentive</td>
<td>Cash</td>
<td>Financial</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sustainability</td>
<td>• ECO+ products</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Energy Efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Engagement index</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>• Individual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50% Long Term Incentive</td>
<td>Performance Shares</td>
<td>Financial</td>
<td>• TSR (relative)</td>
</tr>
<tr>
<td>Sustainability</td>
<td>• Greenhouse gas emissions reduction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**History of the company**

In 1902, the Dutch government formed the coal mining company ‘De Nederlandse Staatsmijnen’ (Dutch State Mines), later renamed DSM. As the mining operation grew, so did the company’s coal-processing operation. A by-product of this operation, coke oven gas, was converted into ammonia, an important intermediate for a number of chemicals, including nitrogenous fertilizers.

In the 1950s, chemical products became more prominent. DSM started focusing on providing industrial chemicals and raw materials for synthetic fibers and yarns.

In 1965, the Dutch government decided to close down the coal mining activities in the Netherlands. In 1975, the country’s last mine was closed. Fortunately, DSM had anticipated this and had changed its focus before that time.

By 1970 chemicals and fertilizers comprised the company’s main activities, accounting for two-thirds of its turnover. In the 1970s and ‘80s DSM underwent major reorganizations to ensure sufficient scale and to diversify into high-quality plastics and fine chemicals.

After 1985, DSM developed a series of ambitious innovation projects resulting in specialities such as the polyethylene fiber Dyneema®, the World’s strongest fiber®.

In 1989, DSM was privatized and listed publicly. During the 1990s, the company paid greater attention to creating a balance between commerce and research and developing value-adding processes and products, particularly products for the pharmaceutical and the food industries and performance materials for the automotive and transport industry and the electrical and electronics sector.

In 1998 DSM acquired Gist-Brocades and its divisions were integrated into the DSM Life Science Products cluster.

In 2002 DSM completed the sale of its petrochemicals business in anticipation of future market movements. This was followed by the acquisition of Roche’s Vitamins & Fine Chemicals Division in October 2003, which was subsequently renamed DSM Nutritional Products.

### Recent history 2005—2011

#### 2005
- Acquisition of NeoResins
- Sale of DSM Bakery Ingredients to Gilde Investment Management
- New DSM strategy towards 2010: accelerate growth, innovation, portfolio quality

#### 2006
- DSM sells iodine business to Sociedad Química y Minera de Chile (SQM)
- Holland Sweetener Company exits from aspartame business
- DSM strengthens position in weight management by acquiring Lipid Technologies Provider AB

#### 2007
- DSM acquired Pentapharm Holding Ltd.
- DSM announces new breakthrough polymer
- DSM NeoResins+ completes new factory for waterborne alkyd resins in Hoek van Holland
- DSM announces plans to accelerate its focus on Life Sciences and Materials Sciences and divest all non-core businesses by 2010

#### 2008
- DSM acquires American specialty-resins producer Soluol
- DSM completes acquisition of The Polymer Technology Group Inc.
- DSM doubles Stanyl® capacity with opening of new plant in Geleen
- DSM to sell Solutech to Lydall, Inc.

#### 2009
- Opening of DSM China Campus
- DSM celebrates twenty years as a listed company
- DSM opens new factory for waterborne acrylic resins in Waalwijk
- DSM and NCPC sign contracts to establish nutrition and anti-infectives joint ventures in China
- DSM acquires Bioprac in Germany
- DSM first company to endorse the ‘Roadmap to End Global Hunger’
- DSM sells urea-licensing business (Stamicarbon) to Maire Tecnimont
- DSM sells DSM Energy to TAQA

#### 2010
- DSM sells DSM Agro and DSM Melamine to Orascom Construction Industries (OCI)
- DSM sells Sarlink® unit to Teknor Apex
- DSM sells Citrique Belge to Adcuram
- DSM finalizes portfolio transformation and enters era of focused growth
- DSM to complete divestment program through sale of DSM Elastomers (Keltan®)
- DSM completes sale of DSM Special Products to Emerald Performance Materials
- DSM acquires Microbia Inc. to expand its leading position in specialty ingredients

#### 2011
- DSM completes acquisition of Martek; adding a new Nutrition growth platform
- DSM successfully acquires 51% stake of AGI in Taiwan
- DSM to acquire Vitatene S.A.U. to expand position in natural carotenoids
- DSM and KuibyshevAzot commence strategic cooperation in Russia
- DSM and Sinochem establish global anti-infectives joint venture
- DSM completes acquisition of majority share in China UHMWPE fiber manufacturer Shandong ICD
Five-year summary

### Income statement

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales</td>
<td>9,193</td>
<td>9,050</td>
<td>7,866</td>
<td>9,297</td>
<td>8,757</td>
</tr>
<tr>
<td>Operating profit plus depreciation and amortization (EBITDA)</td>
<td>1,325</td>
<td>1,278</td>
<td>917</td>
<td>1,357</td>
<td>1,247</td>
</tr>
<tr>
<td>Operating profit (EBIT)</td>
<td>895</td>
<td>838</td>
<td>443</td>
<td>903</td>
<td>823</td>
</tr>
<tr>
<td>Net finance costs</td>
<td>(82)</td>
<td>(93)</td>
<td>(113)</td>
<td>(102)</td>
<td>(75)</td>
</tr>
<tr>
<td>Income tax expense</td>
<td>(155)</td>
<td>(185)</td>
<td>(93)</td>
<td>(196)</td>
<td>(183)</td>
</tr>
<tr>
<td>Share of the profit of associates</td>
<td>3</td>
<td>5</td>
<td>(4)</td>
<td>(3)</td>
<td>(2)</td>
</tr>
<tr>
<td><strong>Net profit before exceptional items</strong></td>
<td><strong>661</strong></td>
<td>565</td>
<td>243</td>
<td>602</td>
<td>563</td>
</tr>
<tr>
<td>Net profit from exceptional items</td>
<td>199</td>
<td>(40)</td>
<td>83</td>
<td>(31)</td>
<td>(129)</td>
</tr>
<tr>
<td><strong>Profit for the year</strong></td>
<td>860</td>
<td>525</td>
<td>336</td>
<td>571</td>
<td>434</td>
</tr>
<tr>
<td>Profit attributable to non-controlling interests</td>
<td>(46)</td>
<td>(18)</td>
<td>1</td>
<td>6</td>
<td>(5)</td>
</tr>
<tr>
<td>Net profit attributable to equity holders of Koninklijke DSM N.V.</td>
<td>814</td>
<td>507</td>
<td>337</td>
<td>577</td>
<td>429</td>
</tr>
<tr>
<td>Dividend on cumulative preference shares</td>
<td>(10)</td>
<td>(10)</td>
<td>(10)</td>
<td>(10)</td>
<td>(10)</td>
</tr>
<tr>
<td><strong>Net profit available to holders of ordinary shares</strong></td>
<td><strong>804</strong></td>
<td><strong>497</strong></td>
<td><strong>327</strong></td>
<td><strong>567</strong></td>
<td><strong>419</strong></td>
</tr>
</tbody>
</table>

### Key figures and ratios

#### Capital employed

|                | 6,581  | 5,468  | 5,673  | 6,558  | 5,982  |

#### Capital expenditure:

- Intangible assets and Property, plant and equipment: 528, 427, 472, 587, 475
- Acquisitions: 974, 49, (5), 152, 93
- Disposals: 742, 377, 287, 27, 52
- Depreciation, amortization and Impairments: 430, 440, 474, 454, 424
- Net debt: 318, (108), 830, 1,781, 1,338
- Dividend: 247, 234, 205, 204, 214

- Workforce at 31 December, headcount: 22,224, 21,911, 22,738, 23,591, 23,254
- Employee benefits costs (x € million): 1,655, 1,566, 1,532, 1,465, 1,389

#### Ratios

- ROCE in %: 14.3, 15.0, 7.2, 14.4, 13.4
- Net sales / average capital employed: 1.53, 1.62, 1.29, 1.48, 1.43
- Current assets / current liabilities: 2.24, 2.42, 2.14, 1.51, 1.78
- Equity / total assets: 0.54, 0.53, 0.52, 0.49, 0.55
- Gearing (net debt / equity plus net debt): 0.05, (0.02), 0.14, 0.28, 0.20
- EBIT / net sales in %: 9.7, 9.3, 5.6, 9.7, 9.4
- Net profit / average Shareholders’ equity available to holders of ordinary shares in %: 14.9, 10.0, 7.2, 11.9, 7.9
- EBITDA / net finance costs: 16.2, 13.7, 8.1, 13.3, 16.6
### Balance sheet

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intangible assets</td>
<td>1,786</td>
<td>1,070</td>
<td>1,053</td>
<td>1,200</td>
<td>1,037</td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>3,405</td>
<td>2,943</td>
<td>3,477</td>
<td>3,641</td>
<td>3,440</td>
</tr>
<tr>
<td>Deferred tax assets</td>
<td>292</td>
<td>326</td>
<td>322</td>
<td>392</td>
<td>346</td>
</tr>
<tr>
<td>Prepaid pension costs</td>
<td>-</td>
<td>1</td>
<td>282</td>
<td>137</td>
<td>1,169</td>
</tr>
<tr>
<td>Associates</td>
<td>35</td>
<td>25</td>
<td>18</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Other financial assets</td>
<td>135</td>
<td>270</td>
<td>233</td>
<td>176</td>
<td>126</td>
</tr>
<tr>
<td><strong>Non-current assets</strong></td>
<td>5,653</td>
<td>4,635</td>
<td>5,385</td>
<td>5,565</td>
<td>6,138</td>
</tr>
<tr>
<td>Inventories</td>
<td>1,573</td>
<td>1,340</td>
<td>1,359</td>
<td>1,765</td>
<td>1,547</td>
</tr>
<tr>
<td>Receivables</td>
<td>1,704</td>
<td>1,477</td>
<td>1,410</td>
<td>1,632</td>
<td>1,687</td>
</tr>
<tr>
<td>Financial derivatives</td>
<td>50</td>
<td>134</td>
<td>88</td>
<td>86</td>
<td>83</td>
</tr>
<tr>
<td>Current investments</td>
<td>89</td>
<td>837</td>
<td>7</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>2,058</td>
<td>1,453</td>
<td>1,340</td>
<td>601</td>
<td>369</td>
</tr>
<tr>
<td><strong>Assets to be contributed to joint ventures</strong></td>
<td>-</td>
<td>317</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Other assets held for sale</strong></td>
<td>30</td>
<td>267</td>
<td>25</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td>5,504</td>
<td>5,845</td>
<td>4,229</td>
<td>4,088</td>
<td>3,690</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>11,157</td>
<td>10,480</td>
<td>9,614</td>
<td>9,653</td>
<td>9,828</td>
</tr>
</tbody>
</table>

|                |       |       |       |       |       |
| **Equity and liabilities** |     |       |       |       |       |
| Shareholders’ equity | 5,784 | 5,481 | 4,949 | 4,633 | 5,310 |
| Non-controlling interests | 190   | 96    | 62    | 62    | 73    |
| **Equity** | 5,974 | 5,577 | 5,011 | 4,695 | 5,383 |
| Deferred tax liabilities | 192   | 155   | 115   | 122   | 344   |
| Employee benefits liabilities | 322   | 297   | 298   | 314   | 273   |
| Provisions     | 116   | 93    | 103   | 190   | 170   |
| Borrowings     | 2,029 | 1,992 | 2,066 | 1,559 | 1,560 |
| Other non-current liabilities | 69    | 33    | 49    | 65    | 35    |
| **Non-current liabilities** | 2,728 | 2,570 | 2,631 | 2,250 | 2,382 |
| Employee benefits liabilities | 6     | 24    | 28    | 33    | 9     |
| Provisions     | 43    | 33    | 102   | 82    | 91    |
| Borrowings     | 160   | 105   | 138   | 734   | 192   |
| Financial derivatives | 325   | 219   | 61    | 179   | 42    |
| Current liabilities | 1,905 | 1,789 | 1,638 | 1,680 | 1,729 |
| Liabilities to be contributed to joint ventures | -    | 104   | -     | -     | -     |
| Other liabilities held for sale | 15    | 59    | 7     | -     | -     |
| **Current liabilities** | 2,455 | 2,333 | 1,972 | 2,708 | 2,063 |
| **Total equity and liabilities** | 11,157| 10,480| 9,614 | 9,653 | 9,828 |
### Information about ordinary DSM shares

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net profit before exceptional items</td>
<td>3.66</td>
<td>3.27</td>
<td>1.44</td>
<td>3.64</td>
<td>3.07</td>
</tr>
<tr>
<td>Net profit</td>
<td>4.86</td>
<td>3.03</td>
<td>2.01</td>
<td>3.45</td>
<td>2.35</td>
</tr>
<tr>
<td>Cash flow</td>
<td>7.69</td>
<td>5.62</td>
<td>6.05</td>
<td>6.20</td>
<td>5.56</td>
</tr>
<tr>
<td>Shareholders’ equity</td>
<td>34.00</td>
<td>31.52</td>
<td>28.92</td>
<td>27.12</td>
<td>30.42</td>
</tr>
<tr>
<td>Dividend:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interim dividend</td>
<td>1.45</td>
<td>1.36</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
</tr>
<tr>
<td>- Final dividend</td>
<td>0.45</td>
<td>0.40</td>
<td>0.40</td>
<td>0.40</td>
<td>0.33</td>
</tr>
<tr>
<td>Pay-out including dividend on cumulative preference shares as % of net profit before exceptional items</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Dividend yield (dividend as % of average price of an ordinary DSM share)</td>
<td>1.00</td>
<td>0.96</td>
<td>0.80</td>
<td>0.80</td>
<td>0.87</td>
</tr>
<tr>
<td>Share prices on NYSE Euronext Amsterdam (closing price):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Highest price</td>
<td>46.82</td>
<td>42.85</td>
<td>34.84</td>
<td>41.27</td>
<td>39.87</td>
</tr>
<tr>
<td>- Lowest price</td>
<td>30.54</td>
<td>30.48</td>
<td>16.93</td>
<td>15.78</td>
<td>31.63</td>
</tr>
<tr>
<td>- At 31 December</td>
<td>35.85</td>
<td>42.61</td>
<td>34.46</td>
<td>38.33</td>
<td>32.33</td>
</tr>
</tbody>
</table>

[x 1000]

| Number of ordinary shares outstanding: | | | | | |
|----------------------------------------|------|------|------|------|
| - At 31 December                       | 163,257| 166,486| 163,037| 162,227| 186,697|
| - Average                              | 165,567| 164,047| 162,364| 154,196| 176,541|
| Daily trading volumes on NYSE Euronext Amsterdam: | | | | | |
| - Average                              | 1,028 | 996  | 1,270 | 1,783 | 1,590|
| - Lowest                               | 191   | 85   | 75   | 162   | 94  |
| - Highest                              | 3,512 | 3,629| 4,378| 5,894| 11,347|

1 Subject to approval by the Annual General Meeting of Shareholders
DISCLAIMER

This document may contain forward-looking statements with respect to DSM’s future (financial) performance and position. Such statements are based on current expectations, estimates and projections of DSM and information currently available to the company.

Examples of forward-looking statements include statements made or implied about the company’s strategy, estimates of sales growth, financial results, cost savings and future developments in its existing business as well as the impact of future acquisitions, and the company’s financial position. These statements can be management estimates based on information provided by specialized agencies or advisors.

DSM cautions readers that such statements involve certain risks and uncertainties that are difficult to predict and therefore it should be understood that many factors can cause the company’s actual performance and position to differ materially from these statements.

These factors include, but are not limited to, macro-economic, market and business trends and conditions, (low-cost) competition, legal claims, the ability to protect intellectual property, changes in legislation, changes in exchange and interest rates, changes in tax rates, pension costs, raw material and energy prices, employee costs, the implementation of the company’s strategy, the company’s ability to identify and complete acquisitions and to successfully integrate acquired companies, the company’s ability to realize planned disposals, savings, restructuring or benefits, the company’s ability to identify, develop and successfully commercialize new products, markets or technologies, economic and/or political changes and other developments in countries and markets in which DSM operates.

As a result, DSM’s actual future performance, position and/or financial results may differ materially from the plans, goals and expectations set forth in such forward-looking statements.

DSM has no obligation to update the statements contained in this document, unless required by law. The English language version of this document is leading.

A more comprehensive discussion of the risk factors affecting DSM’s business can be found in the company’s latest Annual Report, a copy of which can be found on the company’s corporate website, http://www.dsm.com