

NOVO NORDISK A S  
Form 6-K  
February 06, 2006

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 6-K**

**REPORT OF FOREIGN PRIVATE ISSUER**

Pursuant to Rule 13a-16 or 15d-16  
of the Securities Exchange Act of 1934

**FEBRUARY 6, 2006**

**NOVO NORDISK A/S**

(Exact name of Registrant as specified in its charter)

**Novo Allé  
DK- 2880, Bagsvaerd  
Denmark**

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F

Form 20-F  Form 40-F

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes  No

If Yes is marked, indicate below the file number assigned to the registrant in connection with Rule 12g-32(b):82-\_\_\_\_\_

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Steven and Elissa Renouf with their five children. Steven and three of the boys have type 1 diabetes.

Jaya Vandhana Naidu has never been overweight, yet at the age of 14, she was diagnosed with type 2 diabetes.

## A reader's guide

This is Novo Nordisk's *Annual Report 2005*. It accounts for the company's performance during the year and discusses key challenges. It presents the strategic initiatives to develop the business in order to meet its targets and sustain long-term value creation. And it explains Novo Nordisk's way of doing business as a values-based company guided by a vision.

The vision sets the direction and aims to inspire everyone at Novo Nordisk to make their contribution to shaping the future for the company: achieving competitive business results, defending the company's leadership in diabetes care, offering innovative products and services in biopharmaceuticals, making the company a challenging workplace and putting values into action. Each of the vision

statements translates into short- and medium-term targets throughout the organisation.

### Opportunities and challenges

The feature articles are organised under the vision's five headings, and present the key opportunities and challenges for Novo Nordisk as a global healthcare company. They present company-driven activities in pursuit of the Novo Nordisk vision and strategic objectives, and respond to concerns identified through interactions with shareholders, financial analysts and other stakeholders during the year. These topics have been identified as material for readers' valuation of the company's position for the future.

Four challenges stand out as particularly critical to address: access to health for everyone, innovation in the pharmaceutical industry, the implications of globalisation and standards of business ethics. These are put in the spotlight and framed as key stakeholders see them. For each, Novo Nordisk has a strategic response in place, but also dilemmas to confront.

You will find a more detailed account of performance in the consolidated financial and non-financial statements. This section also includes the management report and discussion, topical articles on corporate governance and risk management, management profiles and additional shareholder information.

### Information on demand

The online annual reporting provides more background, context and data. It presents information about the company and its approach to doing business and serves as a point-of-entry for users with specific information wishes. Each article references additional information online. On the website you will also find a list of contact persons.

*Enjoy reading!*

See the online report at [novonordisk.com/annual-report](http://novonordisk.com/annual-report) and download publications at [novonordisk.com/investors/download-centre](http://novonordisk.com/investors/download-centre)

### Accounting for performance

The *Novo Nordisk Annual Report* covers the fiscal year 2005. It is issued in January 2006, for approval by shareholders at the Annual General Meeting in March.

The *Annual Report* does not include the Financial Statements of the Parent Company, Novo Nordisk A/S. These

panies Agency, where a copy can be obtained. In note 31 on p 79, the Appropriation of net profit incl proposed dividends of the Parent Company is included. The Financial Statements of the Parent Company are available online. Novo Nordisk's reporting complies with International Financial Reporting Standards (IFRS) as adopted by the EU and Danish

The *Annual Review* is an abridged version intended for readers wanting a quick overview. It does not include the consolidated financial and non-financial statements.

The *Form 20-F* is filed in February 2006 with the United States Securities and Exchange Commission and is also available online.

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form an integral part of the complete *Annual Report*, which will be filed with the Danish Commerce and Com-

legislation. It also meets the standards for voluntary reporting set by the Global Compact and in accordance with the GRI Guidelines for Sustainability Reporting.

As a supplement, the company provides additional information and a full data set on environmental and social performance in its online annual reporting.

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Fabian Wenger and his brother Florian are identical twins, but only Fabian has type 1 diabetes.

Masae Minami has type 1 diabetes and works as a diabetes doctor.

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## business results performance highlights

### Financial performance

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In 2005, Novo Nordisk increased sales by 16% to a total value of DKK 33,760 million.

There has been a continued strong demand for Novo Nordisk's key strategic products: the insulin analogues and NovoSeven®. Sales of insulin analogues increased by 62%, while sales of NovoSeven® increased by 16%. Novo Nordisk's other therapeutic areas have also experienced solid growth in sales.

North America and International Operations are strong growth drivers, with sales increases at 27% and 25% respectively.

The operating profit increased by 16% to DKK 8,088 million while the underlying operating profit (measured in local currencies and excluding non-recurring items) increased by approximately 20%. Net profit increased by 17% to DKK 5,864 million and earnings per share (diluted) increased by 20% to DKK 17.83.

In 2006, Novo Nordisk expects to increase sales measured in local currencies by at least 10%, and reported operating profit is expected to grow by slightly more than 10%.

### Poised for continued growth

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The year 2005 was another solid growth year for Novo Nordisk. In the markets, there is growing demand for the company's diabetes care products and biopharmaceuticals. In production, global sourcing and efficiency gains help curb costs, and eco-

#### Dividend

At the Annual General Meeting on 8 March 2006, the Board of Directors will propose a 25% increase in dividend to DKK 6.0 per share of DKK 2. A new share repurchase programme of DKK 6 billion is expected to be initiated in 2006.

#### Long-term financial targets

By 2005, Novo Nordisk is approaching the achievement of its long-term financial targets, defined in 2001. The targets were established to ensure a long-term focus towards shareholder value generation and included operating profit, growth, profitability, financial return and generation of cash.

The four revised targets guide the financial development of Novo Nordisk, given the current scope of business activities, and have been prepared assuming that currency exchange rates remain at the current level. Individually and combined these four financial targets are considered to be competitive compared to the overall performance of the pharmaceutical industry.

efficiency measures are paying off in terms of significantly reduced use of water and energy. And across the organisation people are reinforcing the company's position as a values-based business.

### Environmental performance

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In 2005, Novo Nordisk continued to improve eco-efficiency, a measure of the ability to produce more products with use of less energy and water. In the period 2001-2005 the average annual realised improvements were 8% for water and 14% for energy, as measured by EPI indices. Hence, the five-year targets of improvements of the water and energy use efficiency at 5% and 4% per annum, respectively, have been achieved.

Global implementation of environmental management standards progresses on schedule; in 2005, an additional two of Novo Nordisk's production facilities achieved ISO 14001 certification. This is instrumental in putting local management focus on pollution prevention and compliance.

In 2005, the environmental strategy was reviewed. There are six corporate focus areas for 2005-2008: genetically modified organisms, energy and climate change, sustainable process/product, product stewardship, transportation and sustainable supply chain management.

During 2005, a total of 340 suppliers,



Ratio	Long-term financial targets		Result 2005	Three-year average	
	2001	2005		2003	2005
Operating margin	25%	24.0%	24.0%	24.2%	
Growth in operating profit	15%	15.9%	15.9%	11.0%	
Return on invested capital (ROIC)	25%	24.7%	24.7%	21.6%	
Cash to earnings (three-year average)	60%	82.4%	82.4%	82.4%	

Four long-term financial targets ensure management focus on the long-term growth of the business and ensure achievement of a competitive shareholder return.

All exchange rates in this report are translated based on the currency rate at 31 December 2005.

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## Social performance

accounting for 20% of the total value of Novo Nordisk's purchases, were evaluated on their environmental and social performance. Of these, 87% reported a satisfactory performance. Novo Nordisk has requested corrective actions from those who achieved a rating for poor performance.

### Long-term environmental targets

At the end of 2005, Novo Nordisk finalised a climate strategy that sets an ambitious target for reducing its CO<sub>2</sub> emissions by 10% in the period 2004-2014, as compared with 2004. In the absence of reduction initiatives, the company's emissions would increase by 67% in step with production growth. The target has been defined in an agreement with the WWF, making Novo Nordisk the 10th company in the world to become a member of the Climate Savers programme.

The significant CO<sub>2</sub> reductions will be achieved through a broad range of measures including improved energy efficiency, fuel switching and conversion to renewable sources.

In 2005, Novo Nordisk extended its global reach. Since 2000, the workforce has grown by 63%, now counting 22,460 employees in 79 countries.

Recruitment, talent development, rewards and mobility and performance are the cornerstones of the People Strategy that aims to reinforce Novo Nordisk's competitive market position. While respecting diverse cultural and legislative conditions in its markets, global standards are being rolled out.

Employee satisfaction surveys underscore the internal support for the company's values-based approach, and a 100% fulfilment of action plans arising from facilitations supports a company-wide adherence to the Novo Nordisk Way of Management.

In 2005, Novo Nordisk has provided insulin for 12-14 million people, of whom 6.5 million live in Europe, the US, Japan and Oceania, and the remaining 5.5-7.5 million in the International Operations region. The range is due to the fact that in the developing world two or three people may share a daily dose. Novo Nordisk's ac-

cess to health programmes are estimated to reach out to at least 22 million people worldwide through awareness raising, education, diagnosis or treatment.

In 2005, Novo Nordisk implemented a new global business ethics policy supported by a set of guidelines. The policy adheres to the principles of the UN Convention against Corruption and the Global Compact. Implementation measures include training, an advisory function and compliance audits.

### Long-term social targets

Novo Nordisk is leading the fight against diabetes. With its mission of changing diabetes, concerted efforts focus on improved health management for people with diabetes and preventative measures for those at risk of acquiring it. In 2006, Novo Nordisk will define long-term targets for impacts of its interventions.

One initiative is the Oxford Health Alliance, established as an independent body to focus on prevention of chronic diseases.

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## opening statement the year in review

# Poised for continued growth but not at any cost

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Novo Nordisk strives to conduct its activities in a financially, environmentally and socially responsible way, as expressed in our articles of association. In 2005, we achieved very satisfactory results in support of this objective and our vision of defeating diabetes.

Financially and operationally 2005 was our strongest year ever, with growth in sales and earnings of 16% and 17% respectively compared to 2004.

Our strong growth was driven by an increased demand for our key products: NovoRapid®, NovoMix® and Levemir® (insulin analogues) and NovoSeven® (haemostasis management). Market share was gained in diabetes care in Europe, the US and other international markets due to the continued roll-out of our competitive, convenient and complete insulin analogue portfolio and devices. Levemir®, the better basal insulin, has been rolled out in all major European markets as well as in increasing numbers of emerging economies. We are

looking forward to launching this product in the US in 2006, complementing our portfolio of treatment options in the US.

Treatment of people with haemophilia with NovoSeven® is still expanding. And in 2005, groundbreaking new knowledge on the utilisation of NovoSeven® in the treatment of stroke was published in the *New England Journal of Medicine*, indicating the great promise of NovoSeven® in this indication. Phase 3 trials are ongoing in the area of stroke as well as trauma for the purpose of filing for approval with regulatory authorities.

A combination of our insulin device technology and a liquid formulation of Norditropin® (human growth hormone) has proven very user-friendly and is therefore highly competitive, gaining market share in all major markets.

### **Leadership entails responsibility**

There is a general desire within the diabetes community to improve treatment outcomes in

diabetes. New and improved treatment regimens, such as insulin analogues, have therefore been well received and as a result have expanded the diabetes market. This is also the case for countries outside the established pharmaceutical markets in Europe, the US and Japan. Countries such as Brazil, China and India are increasingly able to provide treatment for lifestyle-related chronic diseases such as type 2 diabetes. The need for better methods of intervention is exacerbated by the escalating incidence of diabetes worldwide at an ever-faster pace in low- and middle-income countries where increased urbanisation and growing affluence are leading to more sedentary lifestyles and Western-style diets high in fat, sugar and salt.

### **A commitment to changing diabetes**

As a world leader in diabetes care, Novo Nordisk has the opportunity to grow. But not at any cost. Type 2 diabetes, as a lifestyle disease, can be prevented. Three risk factors – smoking, poor nutrition and lack of physical activity – lead to chronic disease such as heart disease, diabetes, pulmonary disease and some cancers, which together account for more than 50% of global mortality. We have a responsibility as part of our vision to try to influence the negative trends of this global health issue and avoid unnecessary human suffering and a staggering cost to society. That is why we wish to be a catalyst for changing diabetes. As part of this commitment, we are also actively involved in trying to improve access to diabetes care in both developed and developing

countries.

**Investing for the future**

Looking forward, we seek to balance current value creation with long-term growth. The profit from the current positive business cycle, efficiencies in operation and lower costs from strategic global sourcing will be invested into research and development within our core business areas, and into expanded sales and marketing activities, in particular in the US and other international markets.

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By 2005, Novo Nordisk was close to meeting its long-term financial targets. Hence the company has revisited the targets and revised the return and liquidity targets upwards to reflect current performance and future ambition.

It is our ambition to build a broader bio-pharmaceuticals business with new business areas focusing on immunotherapy in cancer and on inflammation. Our projects in these areas are still in the early phases of research and development and unlikely to significantly contribute to our business within the next 10 years. However, to accelerate the process we are establishing the technology platform and strengthening the skills base required, both in-house and with partners, and we are looking into identifying the best investments to match our aspirations.

In other words, we are committed to growth in the near term – balanced with growth in the longer term.

### **The globalisation challenge**

There are also costs associated with globalisation. While globalisation provides many business opportunities, it also provides dilemmas for us as a corporation and to some of our people it may come at a price. Our ambition is to become a truly global leader in diabetes and other disease areas. But not at any cost.

A global economy offers opportunities in the form of access to markets, innovation, talent and competitive manufacturing environments. As markets become global, so does competition. Information is instantly shared and available, capital is abundant, and talent and high-quality education are giving rise to new insights, fresh competitors and potential technological breakthroughs.

On the other hand, operating in the pharmaceutical industry globally presents many challenges. It exposes the company to cultural and social environments that in many ways may differ from those with which we are familiar. We respect and encourage

result, we have clarified our internal policies for business ethics, for example regarding conflict of interest, bribery and interaction with suppliers as well as promotion of pharmaceutical products to healthcare professionals, and contracts with marketing consultants and agents. The company is also complying with new requirements for transparency of clinical trial results. Such initiatives will be strengthened and supplemented in the future.

As we grow and become more global, we will likely leave a greater environmental footprint, but here too Novo Nordisk has set very ambitious global targets for reduction of CO<sub>2</sub> emissions, as part of the WWF Climate Savers Programme.

### **Dealing with dilemmas and setbacks**

However, we did experience some setbacks in 2005. Early in the year, we submitted a registration file to the European regulatory authorities for use of NovoSeven® in trauma, based on encouraging data from phase 2 trials, but we withdrew the file when the authorities requested additional phase 3 data. Such events are part of the calculated risk that all pharmaceutical companies must be prepared to take.

Our marketing practices came under scrutiny in the US. Novo Nordisk was also one of many companies listed as paying fees in connection with contracts entered into under the United Nations Oil-for-Food programme, which enabled Iraq to sell limited quantities of oil to meet its people's humanitarian needs, including life-saving medicines like insulin. Such incidents underline the fact that, in striving to practise a high standard of business ethics, there will always be dilemmas and challenges which we need to address in our daily operations. We will perform as a competitive company, but not at any cost.

### **Our people make it possible**

The financial performance of Novo Nordisk in 2005 was very satisfactory.

Following the strong operational, financial and non-financial performance, we yet again saw an appreciation in the Novo Nordisk share price.

Novo Nordisk adheres to global standards for reporting. The *Annual Report* complies with International Financial Reporting Standards (IFRS) as adopted by the EU and has been prepared in accordance with the 2002 Global Reporting Initiative (GRI) Guidelines. It represents a balanced and reasonable presentation of our organisation's economic, environmental and social performance.

*We hope you enjoy reading it.*

### **Lars Rebien Sørensen**

President and CEO

### **Mads Øvlisen**

Chairman of the Board of Directors  
(until 8 March 2006)

cultural differences, but we will not deviate from the Novo Nordisk Way of Management. As a global corporation we have a commitment to one global set of standards, namely the Novo Nordisk Way of Management that guides our operations, whether it concerns environmental, social and labour affairs, marketing practices or business ethics in general in every market where we are active.

As we grow and move into new markets, our people need more concrete directions for putting these guiding principles into action. As a

In fact, it has exceeded our expectations. We are proud of achieving this result while at the same time contributing to sustainable development. This would not be possible without the strong commitment of our employees and the support of suppliers, partners and local communities where we operate. For this we are very grateful. To show our appreciation of an extraordinary performance and provide an incentive for the future, we granted a global offering of shares to all employees in the autumn.

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## business results about Novo Nordisk

# The Novo Nordisk way

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As a focused healthcare company, Novo Nordisk is committed to leading the fight against diabetes. In this promise lies a clear business rationale and a social commitment deeply rooted in the company's way of doing business.

Effective prevention, early diagnosis and optimal treatment improve the health of people with diabetes. This is what drives Novo Nordisk's mission of changing diabetes. As a world leader in diabetes care, the company pursues its aspiration to defeat diabetes while building its business on sustained and balanced growth.

Novo Nordisk's strong position in diabetes care builds on more than 80 years of experience. Since the first successful experiments in 1922, extracting insulin from the pancreas of cows and pigs, Novo Nordisk's production has been based on biotechnology. Fermentation is the core process, today using genetically modified microorganisms to produce insulin.

### A values-based approach

Novo Nordisk is a public limited liability company. Within this framework, shareholders

### The Triple Bottom Line a broad business principle

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have the ultimate authority to exercise decisions for the company. The company strives to conduct its activities in a financially, environmentally and socially responsible way. This statement is anchored in the articles of association and embraces the principles upon which the company was founded.

This formal commitment to sustainable development and balanced growth has been built into the corporate governance structures, management tools and individual performance assessments. The Brundtland Commission's principle of preserving the planet while improving the quality of life for its current and future inhabitants resonates well with Novo Nordisk's business rationale and its values-based approach. This is what lies behind the Triple Bottom Line which the company has adopted as a broad business principle. It ensures that decision-making balances financial growth with corporate responsibility, short-term gains with long-term profitability and shareholder return with other stakeholder interests.

### Ownership structure

Novo Nordisk's ownership is split between holders of A and B shares. A shares are held by Novo A/S, a holding company fully owned by the Novo Nordisk Foundation and established in 1999 to manage the Foundation's assets and to actively invest in life science businesses. With approximately 25% of the total share capital and approximately 71% of the votes, it maintains a controlling influence with a long-term view to value creation. The A shares held by Novo A/S cannot be divested.

The Novo Nordisk Foundation is a

parenity, accountability, openness, integrity and responsibility in its operations. The company is in general in compliance with current codes of good corporate governance at stock exchanges in Copenhagen, New York and London, where the Novo Nordisk B share is listed.

As a Danish public limited liability company, Novo Nordisk has a two-tier board structure consisting of two separate bodies: the non-executive Board of Directors and Executive Management.

### Engaged with stakeholders

Novo Nordisk holds itself accountable to the company's shareholders and other stakeholders as well as individuals or groups affected by its business in local communities. Stakeholders are customers that is healthcare professionals, people with diabetes and others whose healthcare needs it serves policy-makers, educators, employees, investors, suppliers and other business partners, and society at large. To better manage its risks and act on opportunities, Novo Nordisk proactively maintains engagements with a broad range of stakeholders within its sphere of interest.

### Defining materiality

Ongoing interactions with stakeholders, trendspotting, business monitoring and the integrated systematic risk management process are tools to identify the issues that are material to Novo Nordisk's business. The company's response to current and emerging business and societal challenges, in turn, is shaped in a closer dialogue with representatives of

private, self-governing institution. Its objectives are to provide a stable basis for the commercial and research activities undertaken by the companies in the Novo Group and to support scientific, humanitarian and social purposes. The majority of its grants go to medical and scientific projects.

the stakeholders affected by the issue. As a result of this process, Novo Nordisk frames its strategic response and defines its targets. The company regularly reviews its key priorities to ensure that they reflect current agendas, and reports on progress against performance targets.

**Corporate governance**

Novo Nordisk is committed to the principles of good corporate governance such as trans-

**See the Novo Nordisk Way of Management and more about the company at [novonordisk.com/annual-report](http://novonordisk.com/annual-report) Click: Who we are**



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## The Novo Nordisk Way of Management

The Novo Nordisk Way of Management is the framework for how the company does business. It consists of three elements:

The Vision sets the company's direction for the future. It expresses what Novo Nordisk strives for, how the company will work and how it is guided by its values in its endeavours to find the right balance between compassion and competitiveness between commercial business interests and the obligations of a responsible business.

The Charter describes the company values, its commitment to the Triple Bottom Line and sustainable development, its Fundamentals 11 management principles and follow-up methods to provide ongoing systematic and validated documentation of performance in respect of the Novo Nordisk Way of Management.

Global company policies, giving operational guidelines within 15 specific areas.

### Setting priorities

The Novo Nordisk Way of Management is supported by a range of management tools.

Long-term priorities and objectives are identified through a 10-year Strategic Planning Process, inspired by ongoing trendspotting and 20-year diabetes scenarios, which is revisited

annually. Short-term targets, in turn, are managed through the *Balanced Scorecard*. Corporate goals, both financial and non-financial, are cascaded through the organisation to functional areas and translated into individual or team performance targets.

A range of internal procedures are in place, such as the quality management system, the risk management system, internal controls, assurance, audits and a whistleblower function.

Annual employee surveys serve as a dialogue tool about employee engagement and working climate. An ombudsman function gives employees access to fair process in cases of intercompany disputes.

### Methodology

The set of specific follow-up methods includes three key activities.

Organisational development is assessed through annual *Organisational Audits*, commissioned by the Board of Directors and Executive Management. This process, conducted at senior management level, includes an assessment of linking business and organisation and succession management, and takes a retrospective and a forward-looking perspective.

The *annual reporting* accounts for financial and non-financial performance against short-term and long-term targets, strategies, activities, risk profile and key business opportunities.

*Facilitations* are a unique set-up across the

The Novo Nordisk Way of Management is the company's governance framework.

Novo Group, anchored in the holding company. The facilitators, a global team of senior people with deep insights into the business, evaluate how well the practices and understanding of the Novo Nordisk Way of Management are embedded in the organisation.

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## Novo Nordisk's Vision

We will be the world's leading diabetes care

We will offer products and services in other

We will achieve competitive business

A job here is never

Our values are expressed in all our

**company.**

Our aspiration is to defeat diabetes by finding better methods of diabetes prevention, detection and treatment. We will work actively to promote collaboration between all parties in the healthcare system in order to achieve our common goals.

**areas where we can make a difference.**

Our research will lead to the discovery of new, innovative products, also outside diabetes. We will develop and market such products ourselves whenever we can do it as well as, or better than, others.

**results.**

Our focus is our strength. We will stay independent and form alliances whenever they serve our business purpose and the cause we stand for.

**just a job.**

We are committed to being there for our customers whenever they need us. We will be innovative and effective in everything we do. We will attract and retain the best people by making our company a challenging place to work.

**actions.**

Decency is what counts. Every day we strive to find the right balance between compassion and competitiveness, the short and the long term, self and commitment to colleagues and society, work and family life.

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## **business results** delivering competitive performance

# Facing the leadership challenge

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With its proven leadership in diabetes care, Novo Nordisk is prepared to take on growing competition in the diabetes field while building on its strengths in biopharmaceuticals.

The incidence of diabetes is growing alarmingly fast, calling for more awareness-building, effective diabetes therapy and improved access to care.

As a world leader in diabetes care, Novo Nordisk is ready to meet that challenge. Its approach is built not only on having superior products and conducting cutting-edge scientific research, but also on partnerships with a wide range of stakeholders who share the company's vision to defeat diabetes.

Business results in 2005 further cemented the company's position in diabetes care. This was due mainly to continued solid growth in insulin analogues and injection devices. Novo

Nordisk has strengthened its global leadership position in the insulin market with a total market share of 51% and an insulin analogue market share of 34%, both measured in volume. The company's operations in emerging markets showed strong growth, particularly in China, India and Brazil. Insulin analogues continue to drive overall growth.

In preparation for the US launch of Levemir<sup>®</sup>, the company's long-acting insulin analogue, the diabetes care sales force in the US is being expanded by around 400 people to a total of more than 1,200 diabetes care specialists.

Novo Nordisk's diabetes strategy is based on the industry's broadest portfolio of insulin analogues and injection devices that deliver physiological control for people with diabetes. Good control is critical for pre-

venting serious long-term complications such as blindness, kidney disease, foot and leg amputations, nerve damage, heart disease and stroke.

Two new products are expected to enter phase 3 clinical trials in 2006.

One is liraglutide, a once-daily, long-acting analogue of human GLP-1 for treatment of type 2 diabetes. The phase 3 trial will be initiated in February 2006. The other is AERx<sup>®</sup> iDMS, a delivery system for administering insulin by inhalation to people with type 1 and type 2 diabetes, expected to enter phase 3 in 2006.

Commenting on the fact that Novo Nordisk will not be first on the market with these products, Jesper Brandgaard, chief financial officer for Novo Nordisk, says: We have been second to market with our insulin analogue products and

## **Our Strategy is to build up a sustainable portfolio of promising biological drug candidates in addition to NovoSeven<sup>®</sup> and human growth hormone.**

Lars Rebien Sørensen president and CEO, Novo Nordisk

## **Long-term financial targets**

The target for operating margin remains at 25%. Further productivity improvements in production and administrative areas are expected to be reinvested in research and

to 30%. The increased target is reflecting the expectation of continued lower growth in invested capital compared to operating profit, as well as a recurring lower effective tax rate.

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Focusing on growth, profitability, financial return and generation of cash, the four targets serve to balance short- and long-term considerations, thereby ensuring a focus on shareholder value creation. By 2005, Novo Nordisk was approaching the achievement of the long-term financial targets and they no longer provide sufficient guidance on the targeted financial performance on a five-year horizon.

The four revised targets guide the financial development of Novo Nordisk, given the current scope of business activities, and have been prepared assuming that currency exchange rates remain at the current level. Individually and combined, these four financial targets are considered to be competitive compared to the overall performance of the pharmaceutical industry.

development activities.

The targeted growth in operating profit remains at 15% on average. The target allows for a deviation from the target in an individual year if necessitated by business opportunities or market conditions.

The target for return on invested capital (ROIC) measured post tax is raised from 25%

The targeted cash to earnings ratio is raised from 60% to 70%, reflecting the improved cash conversion ability in the last three years. As previously, this target will be pursued looking at the average over a three-year period. Performance on this ratio may be impacted in individual years by significant in-licensing activities or other major investments.

Ratio	Previous target	Result 2005	Three-year average		New target
			2003	2005	
Operating margin	25%	24.0%	24.2%		25%
Growth in operating profit	15%	15.9%	11.0%		15%
Return on invested capital (ROIC)	25%	24.7%	21.6%		30%
Cash to earnings (three-year average)	60%	82.4%	82.4%		70%

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Steven Renouf with his sons Billy, Charlie and Freddie. Like their father, all three boys have type 1 diabetes.

have still gained a leadership position because of our product profiles and strong commitment to diabetes care. I am confident that we will also be able to get our fair share of the market within these new treatment categories.

### **Strategy to develop biopharmaceuticals**

The biopharmaceuticals business showed healthy growth in 2005, particularly in sales of NovoSeven<sup>®</sup>, but also within growth hormone therapy.

The company's biopharmaceuticals business is an increasing growth driver, primarily fuelled by the blood coagulation factor rFVIIa, marketed as NovoSeven<sup>®</sup>. The drug is currently marketed for people with haemophilia with inhibitors (antibodies) against their existing factor medication and for other people with rare bleeding disorders.

NovoSeven<sup>®</sup> is currently in phase 3 clinical development for use in the treatment of blunt trauma, for example in connection with traffic accidents, and for intracerebral haemorrhage (ICH), and in phase 2 for other critical bleeding conditions. (See p 24.)

### **Moving into new territory within cancer**

Recently, Novo Nordisk started research within cancer and inflammation.

Our strategy is to build up a sustainable portfolio of promising biological drug candidates, says Lars Rebien Sørensen, president and CEO of Novo Nordisk.

With our expertise in proteins and bio-pharmaceuticals and knowledge of immunology from type 1 diabetes, there is a clear rationale for us to move into inflammation and cancer. Also, the areas we are looking at have many similarities to diabetes and haemophilia. They represent chronic therapy areas, they increasingly require patient self-management through injections, and they require specialist and hospital-based treatment. All in all they suit the skills and competences of Novo Nordisk very well, adds Mads Krogsgaard Thomsen, chief science officer for Novo Nordisk.

See more shareholder information at [novonordisk.com/investors](http://novonordisk.com/investors)

## **At home with the Pearl**

Steven Renouf, 35 years old, known throughout Australia and the world as the Pearl of World Class Rugby League, was 22 when he was diagnosed with type 1 diabetes. He was on the brink of his athletic career; his first-born son Sam was only six weeks old.

Four children later, diabetes once more entered the family's life. Charlie, their second-youngest son, was only three years old when they received the news that he too had diabetes. Then Billy, their second-eldest son, was diagnosed at the age of eight, and then Freddie, their baby, was diagnosed at the age of two. Their eldest son, Sam, and their daughter, Sunita, do not have diabetes, but still their blood glucose levels are being monitored on a regular basis.

We try never to blame diabetes for anything and that's what we teach our children too, says Steven Renouf. My attitude towards it is that diabetes is just something you have to deal with, and that's how we've taught the boys to see it.

There is no doubt that for 11-year-old Billy, six-year-old Charlie and four-year-old Freddie, diabetes will never stop them from accomplishing and doing whatever they set their minds to. It provides no restrictions for their father, and neither will it be allowed to present any obstacles for them. Together, the Renouf family is changing what it means to live with diabetes.

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## business results delivering competitive performance

# Future of R&D builds on core competences

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Mads Krogsgaard Thomsen, chief science officer for Novo Nordisk, explains the rationale behind the company's R&D strategy.

### **What are the key elements of the Novo Nordisk R&D strategy?**

There are three main areas of competence: research into diabetes, therapeutic proteins and the delivery of these. These form the basis of our R&D strategy and core competences that have been developed over more than 80 years and continuously refined in the process. In 2005, the research activities within diabetes care and biopharmaceuticals were split into two separate research units to boost innovation and to build a broader presence within biopharmaceuticals.

### **In diabetes, Novo Nordisk is defining its leadership through insulin analogues. Why?**

In type 1 diabetes insulin is the only therapy, and in type 2 diabetes, in many cases, the best therapy. Insulin analogues are a critical step in helping people with diabetes achieve better control of their condition and avoid serious complications. That is the focus of our ongoing development and continued refinement of our insulin analogues: to bring patients back to a near-normal blood sugar level without increasing the risk of low blood glucose levels (hypoglycaemia). Many studies have shown that more intensified treatment can significantly reduce the risk of developing late-stage complications.

In a recent phase 2b study, patients achieved significant improvements in blood glucose control when using liraglutide. There were no cases of major or minor hypoglycaemia and patients also lost weight. We have turned the natural hormone into a drug by stabilising it so that, instead of breaking down within a couple of minutes, its effect is sustained for 24 hours meaning that it can be taken once daily for the treatment of type 2 diabetes. I expect Novo Nordisk to be the first company to market with a once-daily product based on human GLP-1. So, while our GLP-1 won't be first in class, it will be the best in class.

### **You mentioned delivery as a core component of your strategy. What's new with delivery devices?**

We have the broadest portfolio of insulin injection devices and are exploring new concepts for insulin delivery, including the AERx® iDMS. The AERx® insulin Diabetes Management System is an inhalable insulin, which we believe will be a viable treatment option that makes it easier for some people with diabetes to begin insulin therapy.

### **What about oral antidiabetic treatment (OAD) for people with type 2 diabetes? Isn't Novo Nordisk lagging in this area?**

In recent years we've had to abandon OAD projects when clinical results failed to indicate a sufficient competitive advantage for our compounds compared with similar marketed products. This does not mean we've given up. In fact, a new project entered phase 1 in late 2005.

lieve it will take at least a decade to find a cure for type 1 diabetes, we are very much at the forefront of stem cell research in this area. We believe this holds the greatest promise of creating a safe, stable and widely available source of insulin-secreting cells for transplantation into people with type 1 diabetes.

Through the Hagedorn Research Institute, an independent basic research component of Novo Nordisk, we are currently investing more than 15 million Danish kroner (2 million euros) in developmental biology and stem cell research. Hagedorn is presently the only industrial partner in two cutting-edge research efforts: the Beta Cell Biology Consortium (BCBC) supported by the National Institutes of Health (NIH), and the Juvenile Diabetes Research Foundation Center for Beta Cell Therapy in Diabetes in Europe. In 2005, this centre received an 11.8 million euro grant from the EU over five years, together with Hagedorn, to lead the work of 15 laboratories across Europe to further study the potential of embryonic stem cells.

In January 2006, the first of our next-generation insulins entered phase 1 trials. We believe these new insulins will provide even greater treatment benefits.

**Is Novo Nordisk developing new compounds for the treatment of diabetes?**

Yes. Our human GLP-1 analogue, liraglutide, is one in a new class of products for the treatment of type 2 diabetes. GLP-1 is a human hormone produced in the intestine. It stimulates the pancreas to secrete insulin, and also tells the brain to reduce appetite.

Of course we would prefer to have an OAD drug candidate further on in the development pipeline, but these projects haven't yet been able to meet our requirements. That said, we will continue to invest in OAD projects when they show significant advantages over current treatment standards.

Our research focus in OADs relates to blood sugar regulation, insulin resistance and obesity.

**Novo Nordisk also conducts research into a cure for diabetes.**

**Tell us about that.**

A cure is our ultimate goal. Although we be-

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Globally, more than 3,000 people are working together on R&D activities at Novo Nordisk in a number of very diverse areas: basic and discovery research, preclinical and clinical development, production/formulation and delivery of drug substance, regulatory, quality, licensing, patenting, portfolio management and bioethics.

to become mature functional beta cells in vitro.

Hagedorn also received a prestigious grant of 4.3 million US dollars (3.6 million euros) over four years from the US government-funded NIH to coordinate a mainly European research effort in development biology at the BCBC.

#### **What is the company's position on the ethics of using embryonic stem cells?**

We recognise that the use of human embryos for stem cell research has evoked an important ethical debate. At Novo Nordisk, we only use human embryonic stem cells when we anticipate that the same scientific results can't be obtained from the use of adult stem cells. At present no source other than embryonic stem cells has proven useful in generating insulin-producing cells in vitro. We support an open dialogue and an ethical and political clarification regarding the use of human embryonic stem cells, and we fully back laws that ensure that this important research is adequately regulated and controlled.

#### **Novo Nordisk is part of a biomarkers project. What is its aim?**

Along with the University of Oxford and the UK National Health Service, we are a partner in the Oxford Centre for Diabetes, Endocrinology and Metabolism (OCDEM). This is the first diabetes centre outside Denmark to combine basic and clinical research with patient care and medical training under one roof. OCDEM is heading up a project in the European Union to look for biomarkers for diabetes: molecules

in the body that reveal the development of the disease and can shape more individualised diagnosis and treatment.

#### **What is the strategy for developing the company's biopharmaceuticals area?**

We are committed to developing NovoSeven® as the world's first general haemostatic agent. We have come a long way in establishing a new portfolio of projects in haemophilia and other critical bleeding conditions with rFVIIa, the active substance in NovoSeven®. For example, we have shown proof of concept in both trauma and intracerebral haemorrhage (ICH).

We are about to initiate clinical development of the first new rFVIIa analogue with enhanced therapeutic properties including faster onset of action. We are also excited about the potential of recombinant FXIII, which has been tested in patients with FXIII deficiency. We have started an additional study currently in connection with cardiac surgery where rFXIII is being tested alone and later will be tested in combination with NovoSeven®.

#### **The company has announced it will develop new therapy areas in cancer and inflammation. What makes you think Novo Nordisk can be competitive in this field?**

There are four main reasons why it makes sense for Novo Nordisk to move into this area.

First, there is a clear unmet medical need; we have a leading technology platform within therapeutic proteins; we possess knowledge of immunology based on our expertise within type 1 diabetes, a disease of the immune system; and, finally, we see growing scientific opportunities within cancer, especially with the targeted therapies that Novo Nordisk is developing.

This is not to say that we expect this to be an easy undertaking. We know that the success rate of developing drugs within these therapeutic areas is lower than within diabetes. That is why we are building capabilities and critical mass through more research projects and aggressively setting about building a pipeline not just of projects in their early phases but also of clinical development candidates. Despite the challenge before us, we think it is time to really accelerate the development of protein-based drugs in new therapeutic areas. In principle, it doesn't matter whether the projects originate from us here at Novo Nordisk or externally. We are prepared to in-license development projects if the right opportunities arise.



See more about Novo Nordisk's R&D activities at [novonordisk.com/science](http://novonordisk.com/science)

**As the largest private investor in diabetes research, we invest significantly to maintain our scientific edge.**

**Mads Krogsgaard Thomsen chief science officer, Novo Nordisk**

Novo Nordisk Annual Report 2005

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## business results

### pipeline overview

Novo Nordisk's strategy is to provide diabetes care leadership and, furthermore, to make a difference in other areas of unmet medical need where the company can make competitive use of its biotechnology platform. The R&D pipeline is updated quarterly at [novonordisk.com/investors](http://novonordisk.com/investors).

Compound	Indication	Description
<b>Levemir®</b> Insulin detemir	Types 1 and 2 diabetes	A soluble basal insulin analogue with neutral pH and a mechanism of protraction which provides a smooth and predictable action profile and offers a longer duration of action compared with conventional NPH.
<b>NovoMix® 50 and NovoMix® 70</b> Insulin aspart mix	Types 1 and 2 diabetes	Premixed formulations of the rapid-acting insulin analogue insulin aspart. Provide a combined rapid- and intermediate-acting insulin effect (at the ratio of 50/50 or 70/30).
<b>AERx® iDMS</b>	Types 1 and 2 diabetes	The AERx® insulin Diabetes Management System is a pulmonary delivery system for administering insulin to people with types 1 and 2 diabetes.
<b>Liraglutide (NN2211)</b>	Type 2 diabetes	A once-daily, long-acting analogue of human GLP-1 for treatment of type 2 diabetes.
<b>NN344</b>	Types 1 and 2 diabetes	A neutral, soluble, long-acting human insulin analogue with 24-hour coverage by once-daily injection. NN344 has a very flat and predictable action profile.
<b>NN9101</b>	Type 2 diabetes	A novel oral antidiabetic for treatment of type 2 diabetes.
<b>NN5401</b>	Types 1 and 2 diabetes	A next-generation insulin.
<b>NovoSeven®</b> Intracerebral haemorrhage	Bleeding in emergencies, intracerebral haemorrhage	In a phase 2b study NovoSeven® has been demonstrated to reduce haematoma growth, improve treatment outcome and reduce mortality.
<b>NovoSeven®</b> Trauma	Bleeding in emergencies, trauma	In a phase 2b study NovoSeven® has been demonstrated to reduce transfusion needs in patients with severe blunt trauma.
<b>NovoSeven®</b> Variceal bleedings	Bleeding in emergencies, upper gastrointestinal bleeds, cirrhotic patients	Potential NovoSeven® benefits: improved haemostasis.
<b>NovoSeven®</b>	Elective surgery,	Potential NovoSeven® benefits: improved haemostasis.

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Cardiac surgery	cardiac surgery	
<b>NovoSeven®</b> Traumatic brain injury	Bleeding in emergencies, traumatic brain injury	Potential NovoSeven® benefits: improved haemostasis.
<b>NovoSeven®</b> Spinal surgery	Elective surgery, spinal surgery	Potential NovoSeven® benefits: improved haemostasis.
<b>rFXIII</b> Cardiac surgery	Elective surgery, cardiac surgery	Coagulation factor XIII plays an important role in the maintenance of haemostasis through cross-linking of fibrin and other coagulation molecules.
<b>Activelle®</b> Low dose	Hormone replacement therapy	Ultra-low-dose continuous combined product.
<b>Vagifem®</b> Low dose	Hormone replacement therapy	Ultra-low-dose topical product for vaginal application.
<b>IL-21</b>	Cancer, malignant melanoma	Immuno-stimulatory protein that helps the immune system attack tumour cells.

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<b>Phase</b>	<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>	<b>Filed</b>
Approved in most parts of the world, including Europe, North America, South America and Asia. Filed in Japan.				
NovoMix® 50: approved in Europe. Filed in the US. NovoMix® 70: approved in Europe. Filed in the US.				
Phase 2 has been completed.				
Phase 2 has been completed.				
Phase 1.				
Phase 1.				
Phase 1.				
Phase 3.				
Phase 3.				
Phase 2.				
Phase 2.				
Phase 2.				
Phase 2.				
Phase 1.				
Phase 3 has been completed.				
Phase 3.				
Phases 1/2.				

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- Phase 1** Studies in a small group of healthy volunteers, usually between 10 and 100, to test a new drug for best dosage and potential side effects.
- Phase 2** Testing a drug's known dose and side effects in a larger group of volunteers to learn of side effects, the body's use of the drug and its effect on the condition.
- Phase 3** Studies in large groups of volunteers to compare the new drug with a commonly used drug for both safety and efficacy.
- Filed** A New Drug Application is submitted for review by various government regulatory agencies.



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## news

### EU approves NovoMix® 50 and NovoMix® 70

In 2005, the European Commission granted EU marketing authorisation for the new premixed insulin analogues NovoMix® 50 and NovoMix® 70. These complement NovoMix® 30 in the company's portfolio of premixed insulins, which contain both rapid- and intermediate-acting insulin, and therefore cover both the need at mealtimes and the basal need for insulin. The new products make it possible to intensify insulin treatment over time – important because diabetes is a progressive disease. In these mixes, the percentage of rapid-acting insulin is raised from 30% in NovoMix® 30 to 50% and 70% respectively.

The new product ratios make it possible to start insulin treatment with NovoMix® 30 and, without changing insulin, intensify treatment over time, making the NovoMix® product range simple to use for both healthcare professionals and people with type 2 diabetes.

NovoMix® 30 celebrated its third anniversary in 2005.

### Better health in the workplace

NovoSund is a voluntary prevention programme aimed at offering support to improving the health of Novo Nordisk employees. Currently, it is active only in Denmark, where 56% of the company's employees are based,

### TakeAction! kids changing diabetes

Novo Nordisk employees put their energy into getting the message about healthy living across to young people in the TakeAction! School Challenge that kicked off on World Diabetes Day 2005. TakeAction! is the employee volunteer programme to support initiatives that reflect the company's Triple Bottom Line commitment, focusing on leveraging the company's

areas of expertise in social and environmental projects and community engagement. In the TakeAction! School Challenge, employees from around the world engage children in activities that teach healthy living and diabetes prevention, from a nationwide quiz in Slovenia to a competition to create the healthiest sandwich in Germany, to taking part in the Global Diabetes Walk in India. Locally initiated school challenge activities have reached more than 65,000 children in more than 30 countries.

smoking – a very high success rate compared to a Danish benchmark. Several activities to encourage exercise took place in 2005, including a company relay run, where nearly 2,500 employees joined a five-kilometre run as part of a fitness initiative with other companies. NovoSund also carried out a basic health evaluation questionnaire of all

### Improving healthcare provider safety with NovoFine® Autocover®

The NovoFine® Autocover® safety needle is designed to minimise the risk of accidental needle prick injuries for healthcare providers, who can contract infectious diseases like HIV/AIDS and hepatitis B/C by pricking themselves

but it will eventually become global. A smoking cessation programme, which included 700 employees, has been very successful. After 12 months, close to 47% of them were still not

12,000 employees in Denmark. In 2006, senior vice presidents at Novo Nordisk will use the survey data to develop activities for improving employee health in their business areas.

after having injected patients. The NovoFine® Autocover® safety needle is automatically covered by a piece of plastic that locks around the needle after injection. It was introduced in the US in 2005 and will be launched in Europe in 2006. NovoFine® Autocover® is the latest needle innovation from Novo Nordisk.

Since the discomfort of insulin injections is closely connected with the diameter of the needle, Novo Nordisk is committed to producing even thinner, shorter needles in order to make injections easier. NovoFine® 32G Tip needle, one of the world's thinnest globally available needles, was rolled out to major markets in 2005.



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## New lower-dose option for menopausal women

In 2005, Novo Nordisk announced the positive results of phase 3 data of its new ultra-low-dose product Activelle® (Activella®), underscoring Novo Nordisk's commitment to offering a range of low-dose hormone replacement therapy (HRT; HT in the US) products. Novo Nordisk believes that women needing this type of therapy should start when they first experience severe menopausal symptoms and use this therapy for the shortest possible period of time. This position reflects the findings from recent studies that reported potential health risks associated with HRT. Most health authorities recommend using the lowest effective dose for the shortest effective period of time to relieve symptoms of menopause.

## NovoPen® turns 20 with NovoPen® 4

In 2005, the revolutionary insulin delivery device, NovoPen®, turned 20. Prior to NovoPen®, people with diabetes injected insulin using syringes and vials, a process which many found inconvenient and indiscreet. NovoPen® helped them to normalise their lifestyle by taking away the embarrassment associated with traditional insulin injections. Today, almost 3.5 million people worldwide use a NovoPen® system daily.

NovoPen® 3, launched in 1992, is the most used insulin pen in the world. In 2005, an improved sleeker version, NovoPen® 4, was launched in a number of markets. At 155 mm and weighing only 45 g, it is the world's most compact insulin delivery pen. The larger dose scale ensures correct dosage, 50% less pressure is required to push the injection button, and there is an audible indication when an injection is complete.

NovoPen® 4 has won two awards from Good Design Award 2005, for outstanding industrial design and innovative graphic design in the promotion campaign.

## Novo Nordisk creates haemophilia foundation

The Novo Nordisk Hemophilia Foundation (NNHF) was created in 2005 in Zurich, Switzerland, as a sign of the Novo Nordisk commitment to social responsibility within haemophilia care. This is a response to the significant need to improve haemophilia treatment and infrastructure in developing countries, where haemophilia is currently not a healthcare priority and many haemophilia and inhibitor patients go undiagnosed. Thus, life expectancy for people with haemophilia is short and treatment with clotting factors is suboptimal.

The foundation is dedicated to supporting the improvement of haemophilia care by funding sustainable local and regional projects. These projects involve stakeholders within the haemophilia community, such as healthcare professionals, patient associations and governmental and nongovernmental organisations.

NNHF focuses on increasing awareness and diagnosis of haemophilia, its treatment and prevention of complications. NNHF operates on an annual donation of approximately 10 million Danish kroner (1.3 million euros) from Novo Nordisk.

To date, four projects in Algeria, Poland, Uzbekistan and Venezuela have received approval for funding, and many more projects around the world are in the pipeline. The foundation also presents an annual award to an outstanding individual within the haemophilia community for their contribution to disease betterment.

## Levemir® launched in 23 markets

Novo Nordisk is gearing up for the launch of Levemir® in the US, expected in the first half of 2006. This is good news for physicians and other people who are trying to manage and control blood sugar levels. Levemir®, first launched in Switzerland in March 2004, is a long-acting insulin. Levemir® provides more predictable day-to-day control of blood glucose levels with a low risk of hypoglycaemia and less weight gain than conventional human insulin preparations. In 2005, Levemir® was launched in

Spain, France, the Czech Republic, Lithuania, Luxembourg, Turkey, Australia, New Zealand, Brazil, Belgium, Romania and Israel, bringing the total number to 23 countries and generating intense interest in all markets. Novo Nordisk's share of the EU basal insulin analogue market is 17%.

The Levemir® roll-out is one of the most successful launches ever of an insulin analogue from Novo Nordisk. In many countries we have managed to capture a large share of the basal insulin segment in a very short time, says Kåre Schultz, chief operating officer for Novo Nordisk.

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## diabetes care the leadership challenge

# Novo Nordisk is changing diabetes in the US

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Being the preferred partner in diabetes care isn't just about having competitive products. For Novo Nordisk, the real competitive edge comes from the company's commitment to changing diabetes. Perhaps nowhere is this more evident than in the US, which is facing an explosive rise in diabetes.

Dr Francine Kaufman is a leading paediatric endocrinologist in the US. Too often, she says, the children that she treats are not in optimal control of their diabetes. This has a direct impact on their quality of life and can raise the risk of developing serious complications in the long term.

The challenges faced by children and adults with diabetes are immense, says Dr Kaufman, professor of Pediatrics at the Keck School of Medicine and head of the diabetes programme at Children's Hospital, Los Angeles. They are never free of their diabetes.

Dr Kaufman's experience underlines the fact that it takes more than good products to treat diabetes. Such a complex disease demands a high level of self-management and an individualised treatment approach not always possible for overwhelmed physicians and a health-care system oriented towards acute rather than chronic care.

We need to get people to confront the fact that we have a system that is fundamentally unable to deal with diabetes as a chronic disease, she

We want to be a catalyst for changing diabetes, says Martin Soeters, president, Novo Nordisk in the US. That means better serving the needs of the 21 million Americans with diabetes. A third of these don't even know they have diabetes, and two thirds of those being treated are not in good control. Healthcare professionals today have little time for anything other than keeping up with their patients needs. It is understandable that they have only a little time available for pharmaceutical industry representatives. The time we are allowed with the diabetes specialists is therefore used to not only inform about our products, but also to discuss how we can work together even if the shared mission is something as ambitious as facilitating change in the healthcare system. We try to engage as partners with one shared goal the well-being and health outcomes of people with diabetes.

Novo Nordisk is making a multi-million dollar commitment to the National Changing Diabetes Program over the next five years. It will work to remove barriers to chronic disease management, create new incentives for better diabetes care, enhance medical training for diabetes and chronic care, and help people

Dr Francine Kaufman is a supporter of the National Changing Diabetes Program.

with diabetes manage their condition more effectively. The programme was launched in November 2005 in Washington, DC, with a diabetes forum attended by around 200 people involved in diabetes in the US, from policy-makers and patient organisations to physicians, nurses and diabetes educators. For many, it was the first time that all the relevant stakeholders were gathered in the same room.

Our vision and our commitment to social responsibility compel us to pursue a National Changing Diabetes Program because of the very poor state of diabetes control in this country, says Andrew Purcell, vice president, Strategic Business Development in the US.

A report published in 2005 by Yale University Schools of Public Health and Medicine with the Institute for Alternative Futures and sponsored by Novo Nordisk predicted that if the system remains unchanged, by 2025 an estimated 50 million people (15% of the population) will develop diabetes, more than double the current number. It will also cost America 351 billion dollars (298 billion euros) in direct medical and indirect societal costs, more than double the amount currently spent.

### A different approach

Novo Nordisk is working for change through its Government Affairs office in Washington, DC. Its goal is to increase patient focus and resources for changing diabetes care in the US by working together with Congress and the Federal Government. One result of

adds.

**Catalyst for change**

Dr Kaufman is one of many key opinion leaders in the diabetes field who are supporting the National Changing Diabetes Program, a programme launched by Novo Nordisk in 2005 to help bring about meaningful change and foster collaboration among all parties in the healthcare system.

this effort is that insulin devices are now covered under Medicare, the government assistance programme for people over age 65; another achievement is that Medicare recipients now qualify for preventive services that can help detect diabetes.

**We have achieved our goal when all Americans with diabetes are in good control.**

**Martin Soeters president, Novo Nordisk in the US**

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Martin Soeters kicks off the National Changing Diabetes Program, to better serve the 21 million Americans with diabetes.

Our approach is very different, and that's what gets us heard in Washington," says Michael Mawby, chief government affairs officer for Novo Nordisk.

#### **Great place to work**

Based on the belief that people come first in building a successful business, Novo Nordisk in the US has worked to create a company culture among its more than 2,300 employees. The company culture is very important to the US affiliate, which has experienced annual growth in sales of 30% over a period of five years.

The Novo Nordisk approach to business has played a big part in how we attract and retain people, says Jeff Frazier, vice president of Human Resources for Novo Nordisk in the US.

The values, the access to top management and the feeling of contributing to the company's mission of helping people with diabetes and other serious health needs are all highly motivating. This is borne out by annual

surveys on the work climate and by a retention rate for top performers that is significantly higher than for the industry as a whole," says Jeff Frazier. The company earned recognition as an employer in 2005 when it was named the best place to work among large companies in New Jersey by *NJBIZ* magazine and The Best Companies Group.

#### **The way forward**

In 2005, Novo Nordisk achieved for the first time the largest insulin market share in the US by volume at 39%, edging out long-established, much larger competitors. The US is the company's fastest-growing market. While still small in comparison with its competitors, the company's sales force of 1,200 has grown sixfold since 2001. Novo Nordisk is building its US market through a strategic approach that includes several elements: expanding the sales force, attracting and retaining talented people, increasing market penetration for the company's insulin analogue portfolio and working

together with key stakeholders to make positive changes in the healthcare system that will benefit people with diabetes.

While Martin Soeters is pleased with Novo Nordisk's growth in the US, there is a lot more work ahead as it faces growing competition. His next goal is to continue and accelerate the growth of the company's insulin analogue portfolio. To accomplish this, Novo Nordisk is preparing to launch Levemir®, the newest addition to the family of insulin analogues.

The US represents 50% of the world's global sales of pharmaceutical products. There is no reason Novo Nordisk's sales shouldn't reflect that. This will happen not just because of our products, but because of our focus on people with diabetes, employees and society. That is the only way to build a sustainable business," concludes Martin Soeters.

**See more about Novo Nordisk in the US at [novonordisk.com/annual-report](http://novonordisk.com/annual-report)**  
**Click: How we work**



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## diabetes care the leadership challenge

# Changing diabetes demands new approaches

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Curbing the unfolding epidemic of diabetes requires a focused business strategy that takes into account the need to get more people into better control of the condition.

Diabetes is a major global public health problem. In 2003, 194 million people worldwide had diabetes, according to the International Diabetes Federation. That number is expected to reach 333 million by 2025. Moreover, diabetes is associated with long-term complications such as heart disease and stroke, blindness, kidney failure, foot complications, nerve damage and amputations. The human and socio-economic costs associated with diabetes are exorbitant. In the US alone, total health-care costs were estimated at 132 billion US dollars (112 billion euros) in 2002. There is clearly scope for disease management strategies that will help to reduce this burden.

### Reducing complications

Improved blood sugar control is at the core of preventing or delaying complications, and this

is where Novo Nordisk is targeting its efforts.

The level of haemoglobin A1c shows the average amount of sugar in the blood over the previous two to three months and is the best way to find out if the blood sugar is under control. Recommendations are that HbA1c should be below 6.5%. Lowering HbA1c has been shown to have a significant impact on the risk of late-stage complications. People with diabetes in very poor control run a significant risk of developing late-stage complications. Lowering the HbA1c level by just 1% can achieve significant benefits.

Novo Nordisk has a vision of being the world's leading diabetes care company. This is an ambitious goal and one that we approach by way of our full portfolio of insulin analogues. Our message is that control matters. Strict blood sugar control is the key to successful management of diabetes, says Jakob Riis, senior vice president of International Marketing.

With the new insulin preparations that more closely mimic physiological insulin secretion, blood sugar levels can be better controlled and an acceptable HbA1c level can be achieved. Achieving near-normal blood glu-

cose has been an elusive goal for many people with diabetes and one that has often been associated with the increased risk of hypoglycaemic events and weight gain. With the new insulin analogues it is however possible to reap the benefits of tight control without the increased risk of hypoglycaemia and unnecessary weight gain.

While this is a significant step towards an optimal disease management strategy, Jakob Riis also recognises that not all people with diabetes can deal with this level of rigorous self-management.

### Individually tailored treatment

Acknowledging that people are different and that optimal control is achieved by understanding the people behind the disease is a firm conviction of Novo Nordisk. Novo Nordisk's DAWN programme builds on the findings of a breakthrough study conducted by Novo Nordisk into the attitudes, wishes and needs of people with diabetes and diabetes healthcare professionals. The study has created a platform for working with other stakeholders to better understand what it takes to

Harmut Kraft of Germany has had type 2 diabetes for 34 of his 69 years. After struggling with oral therapy for over 30 years, he wanted to put an end to the diabetes complications that were beginning to rule his life. I wanted a normal life, one I can enjoy. Switching from tablets to insulin really changed my life. I am my old self again. I always tell myself I wish I had listened to my doctor's advice and started on insulin years ago, he says.





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help people with diabetes achieve better control of their diabetes. It starts by understanding the person behind the disease.

People with a high level of support from family and friends, and people who cope actively have different treatment preferences from people who feel overwhelmed by the condition and have poor social support. A person who leads a highly active lifestyle with variable mealtimes and a high level of physical activity needs a very different insulin regimen from a retired person living a quieter lifestyle with regular meals and long-established habits. Tailoring therapies to fit each person's needs may be key to improving treatment outcomes in diabetes in the future, says Søren Skovlund, manager of the DAWN programme.

The great thing about the new insulin analogues is that we can customise treatments to the patient's preferred lifestyle. Previously,

people with diabetes and their families had to adhere to a rigid meal plan that evolved around the insulin dose. Now the insulin dose evolves around people's preferred lifestyles. So modern diabetes therapy has provided both health and lifestyle benefits, says Jakob Riis.

For people who grew up with diabetes from early childhood or adolescence, diabetes often becomes a part of life; it is something you just deal with, he continues.

For many adults with type 2 diabetes, there is a need for a more convenient insulin regimen. Our premixed insulins are good starter insulins that give good physiological coverage and can be intensified over time if the need for more intensive therapy arises, concludes Jakob Riis.

#### Earlier diagnosis

One area that Novo Nordisk feels strongly about is the need for earlier diagnosis of dia-

betes and, once people have been diagnosed, faster insulin initiation.

We know that this could prevent a lot of hardship among those affected in terms of fewer late-stage complications and better quality of life. It would also carry significant socio-economic benefits. With the National Diabetes Programme, Novo Nordisk works to influence change in healthcare systems; in the way physicians and people with diabetes approach treatment; and a renewed commitment towards prevention and early detection, says Peter Gerhardsson, vice president of Corporate Health Partnerships. This is a partnership effort requiring the active participation of stakeholders from many sectors including patient associations, healthcare professionals, health policy-makers and others.

For more on improving diabetes care, see pp 22-23. To date, 267 national diabetes programmes have been established worldwide.

**See more about Novo Nordisk's changing diabetes at [novonordisk.com/about\\_us/changing-diabetes](https://novonordisk.com/about_us/changing-diabetes)**

**There is no shortage of experts and statistics sounding the alarm about the diabetes epidemic but it is still not ranked high enough on the global agenda.**

**Lise Kingo executive vice president for people, reputation and relations, Novo Nordisk**

## Range of options for best treatment outcome

The Novo Nordisk approach to diabetes treatment is based on the company's recognition that people with diabetes have differing needs and requirements for treatment, which may change over time. By choosing the treatment best suited to the individual, there is a greater chance of an optimal treatment outcome.

in order to reach optimal blood glucose levels and avoid serious complications.

Insulin analogues are designed to mimic more closely the body's own physiological insulin regulation of blood glucose levels than human insulin, and offer better mealtime glucose control, less hypoglycaemia and increased convenience for all types of people with diabetes.

#### Levemir® brings new benefits

Levemir®, the latest of the insulin analogues developed by Novo Nordisk,

cannot weight gain often associated with conventional insulin preparations.

Other insulin analogues marketed by Novo Nordisk include: NovoRapid® (NovoLog® in the US), which gives tighter blood glucose control at mealtimes without increased risk of hypo-glycaemia NovoMix® 30 (NovoLog® Mix 70/30 in the US and NovoRapid® 30 Mix in Japan), a dual-release insulin analogue, which covers both mealtime and basal requirements. Injection devices that offer convenience and discretion are also

**A tailored diabetes strategy**

The company's insulin portfolio is built on the knowledge that to effectively control blood glucose it is important to address both fasting blood glucose (in between mealtimes) and post-prandial glucose (after mealtimes). Therefore, the Novo Nordisk product range includes both fast-acting and long-acting insulin analogues. A full range of insulin analogues accommodates the need for people with diabetes to intensify insulin treatment over time

is a long-acting insulin that provides more consistent day-to-day control of blood glucose levels than conventional human insulins. Among the benefits for people with diabetes is that it has been demonstrated that Levemir® reduces the fasting blood glucose with a low risk of hypoglycaemia.

In addition, studies have shown that people using Levemir® may not experience the signifi-

part of improved control of diabetes and better quality of life. Novo Nordisk produces a range of devices for insulin therapy. These include FlexPen®, an easy-to-use prefilled injection pen, and NovoPen® 4, just launched in 2005. NovoPen® 4 is the advanced new successor to the world's best-selling durable insulin device, NovoPen® 3.

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## diabetes care the leadership challenge

# Prevention of chronic diseases is hope for the future

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Diabetes is among the epidemic chronic diseases that are costing too many people their health and lives. Prevention is the most effective weapon in this fight, especially if young people lead the change towards healthier lifestyles.

Diabetes and three other epidemic chronic diseases – cardiovascular disease, chronic lung disease and some types of cancer – account for more than 50% of deaths globally. These diseases are linked to three risk factors: tobacco, unhealthy diets with too much fat and sugar and too little physical exercise. Eighty percent of these deaths occur in low- and middle-income countries, according to the World Health Organization (WHO).

This is not tomorrow's epidemic, this is today's epidemic, says Derek Yach, head of the

Global Health Division at Yale University and former chronic disease expert with the WHO.

Prevention is key to halting the course of epidemic chronic diseases, but raising awareness, changing behaviour and reorienting healthcare systems to meet this challenge are a huge undertaking. That is the goal of the Oxford Health Alliance, a broad stakeholder initiative launched by Novo Nordisk and the University of Oxford to focus attention on the importance of preventing chronic diseases.

### **Raising the level of urgency**

In 2004, Novo Nordisk, which is represented on the board of trustees, committed 3 million British pounds (4.4 million euros) over three years to support the Alliance. In 2005, it became an independent non-profit foundation, which allows the group to attract a wider range of partners and funding than would be pos-

sible if it were solely a Novo Nordisk initiative. Through the Oxford Health Alliance, based in London, experts and activists from different backgrounds collaborate to raise awareness and change behaviours, policies and perspectives at every level of society.

About 170 experts from 35 countries gathered for three days at the third annual meeting of the Alliance at Yale University in New Haven, Connecticut, US, in 2005. Through CAPCoD (Community Action to Prevent Chronic Disease), the Alliance is supporting local examples of best practice in 18 mostly developing countries and six locations in the US.

For Lars Rebieen Sørensen, president and CEO of Novo Nordisk, there is clearly a business rationale behind the company's involvement in the Alliance.

Moving diabetes and other chronic diseases higher up on public health agendas will

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inevitably lead to more and better treatment, and probably lead to greater use of our products. But that is not the main reason we are involved, he says. Our vision is to defeat diabetes, and that is only possible if the world finds better ways to prevent diabetes. Part of our success as a company is due to the dialogue and relations we have with people who in one way or another form public opinion. Through the Alliance we meet with, learn from and have the opportunity to work with some of the people who will shape health policies over the next decade. We benefit by being part of an initiative that will lead to new ways of thinking about healthcare, spur our own ideas about what role private industry can play and create solutions for tomorrow.

### **Everyone has a role to play**

The experts gathered at Yale University all agreed that action must start at the grassroots level but that global coordination is key. A major challenge is changing healthcare systems to deal with the complex nature of chronic diseases.

Bernard Lown, Nobel prize-winning director of the Lown Cardiovascular Center and

Research Foundation, said that a decisive factor in better treatment outcomes for the people treated at his centre is that we spend time with the patient as much time as it takes. We do as much *for* the patient and as little as possible *to* the patient.

In Alaska, that philosophy is taking hold in one of the CAPCoD projects.

Native Alaskan-Americans, experiencing a much higher incidence of diabetes than the non-native Alaskan population, are finding that lifestyle coaches government-paid community health workers are giving them the tools they need to adopt healthier lifestyles through basic health information, community advocacy and learning how to teach others.

I've learned that a few people can make a profound difference but not alone, only together with others, said Bernard Lown.

We have spent three days agreeing that something has to be done to deal with this global health problem, said Lise Kingo, executive vice president for people, reputation and relations, who represented Novo Nordisk at the meeting. Now is the time to take action.

**Changing the mindset about diabetes has to start with young people, says Hala Khalaf, author of *Young Voices*, produced by Novo Nordisk. Proceeds from the book are donated to the World Diabetes Foundation to benefit diabetes care for young people in the developing world.**

It has been a welcome challenge to have young people represented at this meeting. They've been reminding us that problems are not solved simply by getting a group of experts together in dialogue. I think we have enough knowledge now to simply get going. The young people are representatives of Novo Nordisk's Youth Panel who, together with a group of young journalists, participated to offer recommendations for how their generation can be mobilised to adopt healthier lifestyles.

**See more about Novo Nordisk changing diabetes at [novonordisk.com/about\\_us/changing-diabetes](https://novonordisk.com/about_us/changing-diabetes)**

**The bullet-proof vest of epidemic chronic disease has to be prevention.**

**Stig Pramming executive director of the Oxford Health Alliance**

## **Reaching young people: what will it take?**

One in three children born in the US today will develop diabetes during their lifetime, according to the US Centers for Disease Control. Due to rising rates of obesity and a less active lifestyle,

make an impact before problems have become irreversible. That is why we focus on improving control among young people with diabetes to prevent complications; and why we work to encourage healthy lifestyles among young people to prevent diabetes in their lifetime, says Lise Kingo. This is an undertaking that requires us to rethink the way we communicate health messages. It also requires a

**Communicate in a language we care about. Then we will be compelled to act.**

*Erik Dunham, 21, US, type 2 diabetes*

**It's possible to enjoy life without the threat of chronic disease hanging over your head.**

*Ronald Cummings-John, 18, UK*

## Edgar Filing: NOVO NORDISK A S - Form 6-K

children and young people are developing type 2 diabetes, once only found in adults. In addition, many children with type 1 diabetes are in poor control of their condition.

In 2005, Novo Nordisk set up a panel of young people from countries like China, the US, Jordan, Denmark and the UK, some with diabetes, who all want to help prevent chronic disease. They are helping Novo Nordisk and its partners to better understand how it is possible to engage young people in taking active responsibility for their own health.

If we want to defeat diabetes, we have to

whole new way of engaging stakeholders in the needs of young people.

Here, five young people answer the question: What is the single most important message to young people about the importance of a healthier lifestyle to avoid chronic diseases?

*Take responsibility for yourself and for future generations.*

*Joanna Matthews, 22, UK*

*We think we're immortal. We know the risks, but we don't want to change. Find out what motivates us to change. That's the only way to get the message through.*

*Anja Østergren Nielsen, 21, Denmark, type 1 diabetes*

*Look out for your own fitness, diet and health. No one is going to do it for you. It's in your hands.*

*Hala Khalaf, 24, Jordan*



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Jaya Vandhana Naidu has type 2 diabetes and lives in Lautoka, Fiji.

Li Guang Jun has type 2 diabetes and lives in Beijing, China.

## Spotlight on access to health

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### THE BIG PICTURE

#### The right to basic healthcare services

Historically, people have had implicit trust in their doctors, and have felt they could relegate responsibility for their care to the medical profession.

Today however, healthcare systems face economic pressure and doctors are overburdened. Healthcare is being rationed, worsening already existing inequities. People no longer feel comfortable relinquishing control of their healthcare, sparking a growing patient rights movement around the world.

But, while richer and more educated patients are adept at placing demands on the system, poorer and disenfranchised groups are less able to fight for their rights. Yet those who don't get access to care quickly enough get sicker, and become a greater burden on society.

Politicians are aware of the need for a patient-centred approach to healthcare; some even believe this could help reduce

healthcare bills. But, governments approaches such as Patient Charters have had little impact, as they are poorly implemented. What is having an effect are grassroots movements among patients and civic groups. These groups realise that the public must take charge of the management of their own health-care, especially in matters of prevention.

Prevention is key to addressing chronic diseases. However, if patients are to take greater responsibility for managing their own care, they must be afforded the rights to do so. The big challenge for the next decade will be equitable health reform. Without placing the ultimate users of the healthcare system the public at the centre, it is difficult to see how governments will ever achieve the cost reductions they seek, while still fulfilling their responsibility to ensure fair and adequate access to healthcare for their citizens.

*Alexandra Wyke*  
Founder and CEO of PatientView

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Alexandra Wyke was invited by Novo Nordisk to provide a perspective on the hot topic of access to health and to outline some of the issues currently under debate.

### THE NOVO NORDISK APPROACH

#### Partnerships can bridge gap in access to care

It wasn't until he ended up in hospital that Li Guang Jun discovered that he had type 2 diabetes. Recently retired at the age of 63, he was ready to devote himself to his passion for calligraphy. Instead, he had to learn to live a different sort of life. Today, Li Guang Jun, 74, is in control of his diabetes through medicine, diet, exercise (his faithful morning tai chi) and constant monitoring of his blood sugar.

By understanding, accepting and having the right attitude about my diabetes, I am able to rise above it and control it, he says.

Li Guang Jun is lucky. He has access to doctors, medicine and the other support he needs to manage his chronic condition. That is not the case for many others, in both the developed and developing world, who lack access to nurses, doctors, clinics or hospitals or the knowledge and awareness to manage their health.

#### Pressing need for new solutions

Novo Nordisk is committed to ensuring greater access to health. The company's approach is built on the four priorities (see model on opposite page) of the World Health Organization (WHO). The aim is to partner with key stakeholders to develop entirely new strategies and solutions for how to better meet the needs of people with or at risk of developing diabetes.





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Abdalla M Abeid has type 2 diabetes and lives in Dar es Salaam, Tanzania.

Punithevel Thanikachalam has type 2 diabetes and lives in Chennai, India.

The economic burden of diabetes, already huge, will increase in the future if nothing is done. As part of its strategy for access to health, Novo Nordisk undertakes socio-economic studies to better understand what it takes to change societies and how the company can contribute to such change.

Novo Nordisk's studies show that poor control of diabetes translates into lost lives, lost quality of life and lost national productivity. With proper treatment, people with diabetes can lead an almost normal life and reduce the risk of disabilities and premature death. But proper treatment of diabetes is far from universal, even in the developed world, due to lack of awareness. In the developing world the problem is made worse by too few economic resources and inadequate healthcare infrastructure.

### **National Diabetes Programme in China**

In 2003, a National Diabetes Management Programme was set up jointly by Novo Nordisk, the World Diabetes Foundation and the Chinese Ministry of Health. This five-year programme, supported with 18 million Danish kroner (2.4 million euros), aims to prevent, de-

### **Strategies for access to health**

Novo Nordisk has built its strategy for improved access to diabetes care on WHO recommendations.

tect and treat diabetes, and thereby reduce the burden of diabetes on Chinese society.

The total number of people with diabetes in China is currently estimated to be in excess of 30 million and continuing to grow.

Project activities will cover an area with a population of around 500 million people, including 20 million people with diabetes. The aim is to introduce systematic diabetes education for doctors and nurses. Fifty thousand doctors and nurses will be trained in diabetes care and management through seminars and on-the-job training. The first national training programme, with approximately 3,500 participants in 33 cities, has now finished.

In addition, Novo Nordisk is working with partners in seven developing countries to improve diabetes care through activities such as establishing diabetes clinics, training doctors and nurses, and working with governments to set up national diabetes programmes. These countries are Bangladesh, Costa Rica, El Salvador, India, Malaysia, Tanzania and Zambia.

### **Focus on low-income minorities**

Access to diabetes care is also an issue in the developed world. Some groups of people, due to their ethnic background and genetic predisposition, experience a higher incidence of diabetes; some of them also experience inequities in access to care. In 2005, Novo Nordisk's initiatives to better serve the needs of low-income minority populations included:

The Changing Diabetes Dialogue series, aimed at working with partners to identify barriers to care for low-income minorities.

Dialogues so far have looked at communities in Greece and the Netherlands. The goal is to gather examples of best practice and make these available to those who

A three-year project with the University of California at Irvine in the US to identify improvement in quality of care and cultural beliefs about diabetes among Vietnamese living in California. A coaching technique is being tested, in which people with diabetes coach one another, as such an approach may be effective in close-knit communities to improve treatment outcomes.

### **Best possible pricing**

Novo Nordisk offers human insulin to the public health systems in the 50 Least Developed Countries (LDCs), as defined by the UN, at prices not to exceed 20% of the average price in North America, Europe and Japan. For 2005, Novo Nordisk offered this pricing policy to all 50 countries and sold human insulin in a total of 32 countries at or below this price, compared with 33 in 2004.

### **Reaching the poorest nations**

The World Diabetes Foundation (WDF) was launched by Novo Nordisk in 2001 as an independent non-profit organisation with a grant of 500 million Danish kroner (about 67 million euros) to be spent over 10 years to improve diabetes care and prevention in the world's poorest countries. Funding goes towards sustainable projects in education and awareness programmes, and assistance in building healthcare capacity. Today the WDF is supporting 57 ongoing projects with an estimated direct impact on 24 million people in more than 65 countries in the developing world.

work with diabetes worldwide

See performance data on access  
to health  
at [novonordisk.com/annual-report](http://novonordisk.com/annual-report)  
Click: How we perform

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## biopharmaceuticals leveraging core competences

# Expanding the scope of biopharmaceuticals

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In 2005, Novo Nordisk focused on growing its biopharmaceuticals business within critical bleeds as well as new therapy areas in cancer and inflammation.

Terje Kalland, head of the Novo Nordisk Bio-pharmaceuticals Research Unit, is a determined man. His mission is to expand the Novo Nordisk biopharmaceuticals business, a challenge he does not take lightly. But he takes heart from the fact that in 2005, clinical trials continued to demonstrate the potential of blood coagulation factor NovoSeven® to address critical bleeds in situations where there had previously been little hope of medical treatment.

NovoSeven® is poised to grow. If results from our ongoing clinical trials hold up, it will make a difference to a patient population that had little hope in the past, says Terje Kalland.

Many physicians truly believe NovoSeven® has the potential to save lives, says Richard Weiskopf, project vice president for Emergency Bleeds for Novo Nordisk.

### Boost from new R&D centre in the US

In North Brunswick, New Jersey, Marcus Carr is heading up a first-of-its-kind haemostasis research centre, established by Novo Nordisk in 2005. It will provide additional scientific support for building the company's haemostasis business.

My goal is to help Novo Nordisk become a world leader in haemostasis, says Marcus Carr, a

trials. This followed the positive clinical results from a phase 2 trial, reported in the *New England Journal of Medicine* in February 2005. The results signalled the first-ever breakthrough within ICH. The phase 2 trial found that people given NovoSeven® soon after having experienced an intracerebral haemorrhage were more likely to survive without severe disability.

About 40% of people who experience ICH die within 30 days; those who survive are left with more severe disabilities than survivors of other forms of stroke, including loss of movement, speech and mental capability.

NovoSeven® is also in phase 3 trials for use in trauma, such as acute bleeding due to traffic accidents. Many clinicians with whom I speak who have used NovoSeven® investigationally for trauma-associated haemorrhage feel strongly that the product can effectively stop bleeding in patients with severe trauma. We still need confirmation of the clinical proof of concept, as can be provided by a phase 3 study, and that's why we're conducting these trials, explains Richard Weiskopf.

For more on Novo Nordisk's R&D within haemostasis, see pp 10–11. For the status of the pipeline, see pp 12–13.

### Targeting cancer and inflammation

The company will exploit its technology platform to develop molecules to target cancer and inflammation as a new therapy area. As a scientist specialising in oncology and inflammation, Terje Kalland is

looking to these areas to give us that in due course, says Terje Kalland.

Immunotherapy is a promising form of treatment in the fight against cancer. The concept is either to stimulate the immune system or to use proteins produced by the immune system, for example cytokines or monoclonal antibodies, to combat malignant tumours.

At the moment, the substance that has reached the furthest stage of development is IL-21, which is licensed from ZymoGenetics, Inc, a US biotech company partly owned by Novo Nordisk. This compound is currently being tested in humans with widespread malignant melanoma and renal cancer.

Novo Nordisk has increased its number of early-stage compounds and has thereby expanded its portfolio of exciting projects.

These are areas where, because the success rate is simply very low, you need to have critical mass in your number of research projects, and that is what we are working towards, says Terje Kalland.

Terje Kalland acknowledges that there are hurdles to be overcome before Novo Nordisk achieves its ambition of becoming a player in a new therapy area. Its current projects are still at an early stage, with only animal data and early-stage human data available. Yet he believes that Novo Nordisk can make a difference in this area relative to competitors both within its own areas of expertise and through in-licensing agreements with other firms that can complement that expertise.

The management at Novo Nordisk is serious about its commitment to this

renowned expert in the field of coagulation with extensive experience in basic and clinical research from more than 25 years in both clinical practice and academia. In five to six years I'd like to see us recognised as the preferred partner for evaluating novel ways of treating bleeding and related complications.

#### **New hope in stroke and trauma**

In 2005, Novo Nordisk moved NovoSeven® for treatment of intracerebral haemorrhage (ICH), the most deadly form of stroke, into phase 3

committed to developing a number of projects that will allow the company to gain a foothold in these new therapy areas.

In the future, Novo Nordisk will not be content just to defend and extend its leadership in diabetes and haemostasis. We will accelerate the development of protein-based drugs in new therapeutic areas, such as cancer and inflammation. We would welcome another string to our competitive bow, and we are

area. They have ambitious aims to grow the area rapidly and to invest what is necessary in order to succeed.

**See more about the  
biopharmaceuticals  
business at  
[novonordisk.com/annual-report](http://novonordisk.com/annual-report)  
Click: What we do**

**Our protein expertise will take us a long way. Where we lack expertise we will develop partnerships.**

**Terje Kalland head of the Novo Nordisk Biopharmaceuticals Research Unit**

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## **How NovoSeven<sup>®</sup> is used today**

Approved for treatment for:

- the estimated 3,500 people with haemo-philia with inhibitors in the developed world (US, EU, Japan and other countries)

- people with acquired haemophilia (EU and Japan)

- people with the rare bleeding disorder Glanzmann's thrombasthenia (EU)

- FVII deficiency (US and EU).

In 2005 approved by the FDA for:

- use in surgical procedures involving haemo-philia patients with inhibitors

- patients with FVII deficiency.

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Fabian Wenger has type 1 diabetes and lives in Bad Schussenried, Germany.

## Spotlight on innovation

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### THE BIG PICTURE

#### New paradigm to unleash innovation

It is fair to say that large pharmaceutical companies have not been as innovative as they need to be. The standard paradigm centred around a few conventional drug targets has proven a much harder approach than first believed. In stark contrast, smaller firms that have pursued biologics have had a pretty spectacular turn in the past decade – opportunities large pharma have failed to grasp. This is not to say the industry lacks innovation; most products get to market through some sort of pharmaceutical development. The challenge is to find a new model of innovation.

Engaging with the small company sector and academia has proven to be fertile ground for innovation. Success in such partnerships is more than simply putting money on the table, but rather having industry contribute its unique skills

in drug development and set aside its prejudices about appropriate therapeutic targets. Companies must determine how much they can sensibly outsource without losing their ability to make good decisions. It is a matter of managing those relationships well, and having on board a certain amount of expertise.

While the old model no longer works, a new model has not yet evolved. Such a model will have to go to the sources of innovation in biomedicine, to academia and small biotech. The winners will be smaller rather than larger, have a diverse range of both therapeutic approaches and molecules, be quick on their feet and very good at external relationships. That is the best model for the moment, but whether it will continue to hold for the next decade remains to be seen.

*John Bell*

Regius Professor of Medicine,  
University of Oxford

John Bell was invited by Novo Nordisk to provide a perspective on the hot topic of innovation within the pharmaceutical industry and to outline some of the issues currently under debate.

### THE NOVO NORDISK APPROACH

#### Harnessing creativity through partnerships

When it comes to cracking the nut of complex chronic diseases, no single company or institution holds the patent on innovation. For that reason, Nicolai Wagtmann, vice president of Biopharmaceuticals Biology at Novo Nordisk, is constantly on the lookout for partners that can help Novo Nordisk assemble a portfolio of promising biological drug candidates within cancer and inflammation.

He found such a partner in Innate Pharma, a small biotech company in France specialising in cancer immunotherapy. Since 2003, Innate Pharma and Novo Nordisk have been collaborating on the generation of a new therapeutic class of immuno-modulatory antibodies targeting natural killer (NK) cells that may prove to be effective in the treatment of some cancers.

Novo Nordisk was a preferred partner for Innate Pharma not only for its ability to provide large-scale production, but also for its expertise within biology, Nicolai Wagtmann explains. If you have good science in-house, you become a more credible player and more interesting to potential partners, he says.

ZymoGenetics is another biotechnology firm, based in the US, with which Novo Nordisk has

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Medical representative Anouar Ben Younes works in Tunis, Tunisia.

Li Hua works as a research assistant at the Novo Nordisk Research Centre outside Beijing, China.

been able to capitalise on synergies in the development of new compounds for the treatment of cancer (see p 24). Novo Nordisk has around 240 collaborations through scientific in-licensing with biotech firms as well as universities around the world. University research is often at an early stage of development, for example at the biological hypothesis stage or first-patent application, but it can nonetheless provide interesting opportunities to exploit synergies.

#### **Creating a culture of innovation**

For Novo Nordisk, innovation is about exploiting ideas that can provide added value for the company and its stakeholders. Innovation is a high priority throughout the entire organisation. The company is working on finding the right balance between management systems and space for new ideas in order to create a true culture of innovation.

Recently, an external review was conducted of Novo Nordisk's capacity to innovate relative to other organisations. As a response to the review, a number of innovation projects were selected by top management and are now in the process of being realised. Examples include new models for sales and marketing, new insulin devices for the developing world and more efficient methods for insulin production.

Nurturing a more risk-taking, entrepreneurial spirit, and yet still managing the inherent risks of drug development to an appropriate level, is critical in the pharmaceutical industry, which faces a risk of around 30% that drugs tested as far as in phase 3 studies will never reach the market. Delays in development of new drugs

or failure to obtain approval from regulatory authorities could have a significant negative impact on Novo Nordisk's ability to maintain its position as a market leader in diabetes care and to reach its long-term financial targets.

#### **Translating knowledge into practice**

There are many examples of how Novo Nordisk takes innovative ideas and technologies and puts them into practice. For example, in 1985, the launch of NovoPen® set a new standard in diabetes care. As the world's first insulin delivery pen, it offered people with diabetes a unique and innovative tool that combined the syringe and insulin container in one instrument.

Over the last 20 years, Novo Nordisk has continued to enhance and update the NovoPen® range of insulin delivery pens. There have been improvements in accuracy, convenience, durability, discretion and ease of use. The company launched the first-ever prefilled insulin device in 1989. In 2005, on the 20th anniversary of NovoPen®, NovoPen® 4 was launched. It is the world's most compact insulin delivery pen, with significant user-friendly enhancements such as a three-times larger, easy-to-read dose scale, 50% less pressure required to push the button compared with current available insulin pens, and audible indication when injection is complete.

These developments in insulin delivery pens have had a significant impact on treatment outcomes for people with diabetes, since patient preference for insulin delivery devices strongly influences their compliance with treatment in the long term.

Another example of innovation

the Norditropin® SimpleXx® delivery system for human growth hormone (hGH). Novo Nordisk used its knowledge in developing pens for insulin delivery in order to develop the world's first liquid hGH in a superior pen device, offering the same simplicity of use and discretion as NovoPen®.

#### **Taking a cue from nature**

The discovery of new technologies in the world of science is a rare event. Novo Nordisk succeeded in just that with its acylation technology, a new technology for prolonging the duration of insulin. The technology has been used in the development of Levemir®, the company's latest insulin analogue, and in the development of liraglutide, a GLP-1 product for diabetes (see p 10).

What is exciting about the technology, according to Peter Kurtzhals, senior vice president for the Diabetes Research Unit at Novo Nordisk, is that it appears to be generally applicable to any biopharmaceutical compound, which means that use of the technology could result in a potential value upgrade for any compound in the company's diabetes pipeline.

In some ways, this technology is nature's own idea, he explains. We have engineered a natural principle into a pharmacological utility. For me, that's what innovation is about – taking knowledge and using it for practical purposes to develop better products and processes.



in practice is

See more about innovation in  
Novo Nordisk's  
R&D activities at  
[novonordisk.com/science](http://novonordisk.com/science)

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The Novo Nordisk Global People Board, responsible for creating the People Strategy of the company, at a meeting in the new House of People in Denmark.

## People with values make the difference

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Having a diverse and mobile work-force is a prerequisite for Novo Nordisk to stay competitive in the global marketplace. That way, people can operate seamlessly across national borders as well as functional areas. The People Strategy drives strategic efforts to build an agile organisation guided by a strong set of values.

In less than four years, Jack Chen's career at Novo Nordisk has taken him in a number of different directions across functions, business areas and geographical borders. Eighteen months after joining the company in 2002 as strategic planning manager for the company's US affiliate, he moved to diabetes product management in the US. Then later he returned to his native China to serve first as business development director and now as director of

the Biopharmaceuticals Business Unit for Novo Nordisk in China.

The frequent new job assignments keep him challenged, says Jack Chen. He realises that his broad skills base and his ease at working in different countries make him a valuable employee in a company like Novo Nordisk seeking to expand its global reach.

All the career moves add to my operational experience, says Jack Chen. What I have learned in the US has been a tremendous help in bringing best practice to China. For example, I challenged our affiliate to adapt the more dynamic style of US national sales meetings and, when they did, it was a great success.

Jack Chen's experience illustrates the four anchors of the People Strategy: recruitment, talent development, rewards and mobility, and performance.

Everything we do depends on our people. Every employee must have a chance to devel-

op personally and professionally. We're expanding our operations internationally, which means we need a diverse and mobile work-force. There are tough business challenges ahead, which means we need to develop leaders, explains Lars Christian Lassen, senior vice president for Corporate People & Organisation at Novo Nordisk.

The ambition is to achieve more transparent and uniform performance measures. This will give more flexibility in spotting the right people for vacant positions across borders and functions.

### **Clear business benefits**

The Novo Nordisk People Strategy focuses on two key areas: supporting the values of the company and contributing to meeting business challenges in the markets. People development programmes are designed to achieve closer alignment between competence devel-

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opment and business goals, and talent programmes are a priority to prepare tomorrow's leaders and facilitate succession management. Furthermore, work is ongoing to develop competitive performance rewards and global health and safety standards for Novo Nordisk's global workforce.

The expected long-term business benefits would be higher job satisfaction, lower absence rates and a people retention rate that can outperform industry peers. In 2005, Novo Nordisk was ranked as Best Place to Work in several of its markets (see p 35), and rated as one of the most attractive places to work among engineering, life science and management graduates in Denmark.

### **Mobility to seize talent**

For Novo Nordisk, mobility is making sure that the very best talents are identified and selected, globally. This task is in the hands of the Global Rewards & Mobility Centre of Excellence at Novo Nordisk's headquarters in Denmark, which is itself a microcosm of the way the company wants to internationalise: the centre's 11 staff members have diverse backgrounds and come from Denmark, France, Mexico, Portugal, the UK and the US. We are supporting highly mobile people, so we want to make sure we have international experience ourselves. That way we do our work best, says Neil Miller, vice president, Global Rewards & Mobility.

While only 6% of Novo Nordisk's employees

work outside their home country, this represents a notable increase since 2004. Likewise, the overall global mobility – that is employees on expatriate contracts, extended business trips, transfers on local conditions or in graduate programmes – has increased by nearly 50% since 2002.

Diversity management is also a priority with Novo Nordisk, but management recognises that there are no quick fixes. For instance, there is a range of initiatives to encourage more women in management, including development and mentor programmes. While the company won awards in 2005 for its efforts in and commitment to equal opportunities (see p 35), results are yet to translate into solid data.

In this field, we share the challenges that many other companies are facing – change takes time, says Global HR Partner Ove Munch Ovesen, who leads the diversity programmes.

Ove Munch Ovesen is confident that concrete results will materialise:

The programme is paying off, and numbers are moving in the right direction. An example is our talent pool for senior managers, where we have recruited more women in 2005. So in the coming years we are likely to have more women in senior management positions. The company does not favour quotas, but seeks to nurture the best talent for any job.

### **Growing talent**

Globalisation requires leadership. It requires future talents to be developed to have a global mindset, possess strong traits and values and an ability to work across cultures, lead people from different cultural backgrounds and manage complexity in a constantly changing environment. Novo Nordisk has two global talent pools for management positions: the Lighthouse programme for senior managers and the Greenhouse

in the US for eight years before transferring to Denmark. When your company says we've been watching you, we think you're doing a good job and we want to give you additional tools to develop further – that's highly motivating. I've also found that the more I lead other people and acquire responsibility, the more prominent the Novo Nordisk values and the Triple Bottom Line figure in my work life.

Moreover, the company offers competence development for all its employees to better equip them to match the business goals. In 2005, investments in people development amounted to an average of 9,899 Danish kroner (1,327 euros) per employee.

### **Never just a job**

While the People Strategy aims to improve Novo Nordisk's competitiveness through its people, other programmes also inspire and encourage employee engagement. Novo Nordisk conducted a study on The Future Work Life together with employee unions in Denmark. The project indicated that in an increasingly networked society where change is the only constant, it becomes even more important for people to be engaged in their job and to share a sense of community and support.

One global programme in particular inspires employees to support the company values. TakeAction!, a volunteer programme, encourages employees to undertake team activities that contribute to the Triple Bottom Line. Activities are in support of social objectives and often involve local communities. The only prerequisite is that activities are aligned with the company's business objectives.

Another is NovoSund, a prevention programme that aims to inspire and enable employees and their families to adopt a healthier lifestyle and reduce their risk of developing chronic diseases like diabetes. Novo Nordisk is taking a rigorous approach and works to produce solid data that can show the impact of

## Edgar Filing: NOVO NORDISK A S - Form 6-K

programme for younger managerial talents.

Joan Schmidt, American and manager of the Licensing & Litigation team, Corporate Legal, and a member of the Greenhouse programme, is encouraged by this opportunity to learn of the bigger picture and see broader career opportunities in the company: I've worked for Novo Nordisk for 10 years, first as assistant general counsel at Novo Nordisk, Inc

various interventions. In this way the company will package its offerings of healthy choices and activities to the maximum benefit of its people.

See performance data on workplace quality at [novonordisk.com/annual-report](https://www.novonordisk.com/annual-report)  
Click: How we perform

**The People Strategy is our framework to continue to inspire, engage and develop our employees' talents so that we can meet our strategic objectives.**

Lars Christian Lassen senior vice president, Corporate People & Organisation, Novo Nordisk



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The FlexPen® plant in Hillerød, Denmark.

Switzerland: 78 people work in the two regional headquarters Region Europe and International Operations.

## Spotlight on globalisation

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### THE BIG PICTURE

#### Plug into the global economy

I know of a New York restaurant that has outsourced its reservation service to a company in India. That's my favourite metaphor for globalisation. What they've done is to take advantage of the digital revolution to move one function – just the one function where it makes perfect business sense to do so. The chef and waiters stay in New York. You don't have to disaggregate an entire business; but if you want to stay competitive, you have to look at what elements can be done better in new ways. That's how a company can be responsible to shareholders, employees and society.

There are evidently two sides to globalisation. Fundamentally it offers advantages. In emerging economies, by and large Western companies are a force for good. Paying a premium for talent sends a signal that education pays. The biggest

hope we have – and the solution to global inequity – is moving these countries in the right direction. Acquire technological skills, knowledge – that's how we can improve the world. The message to people should be: you can plug into the global economy and prosper.

The caveat is that there is going to be intense competitive pressure on the workforce in the West. That's the central dilemma. We owe it to Western workers to enable them to move up the value chain. Those with easily reproducible skills are most at risk. The real challenge is to make massive investments in training and retraining. This requires governments and private organisations to invest and work together – not just take protective measures, which is a short-term defense.

*Fareed Zakaria*  
Editor, *Newsweek International*

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Fareed Zakaria was invited by Novo Nordisk to provide a perspective on the hot topic of globalisation and to outline some of the issues currently under debate.

### THE NOVO NORDISK APPROACH

#### Striving for balanced growth

For Niels-Erik Olsen, shop steward for Novo Nordisk's largest insulin production facility in Kalundborg, Denmark, the company's strategy to expand its production beyond its traditional production base in Denmark prompts anxiety among some of his fellow workers concerned about their job security.

In meetings held in 2005 between employees in Denmark and Lars Rebien Sørensen, president and CEO of Novo Nordisk, globalisation was a hot topic: employees wanted to understand the rationale behind the decision to extend production outside Denmark, and they wanted senior management to advocate wage tax reductions in Denmark to lower living costs and the ensuing pressure to retain a high wage level.

Lars Rebien Sørensen recognises the dilemmas. Many rich countries with high tax levels and living costs are concerned that globalisation will mean jobs moving out. The reality is that in recent years we have managed to create around 2,500 new jobs outside Denmark while at the same time creating around 800 new jobs in Denmark. This has been possible because we are competitive and constantly

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Dr Masae Minami has type 1 diabetes and works as a diabetes specialist at her own clinic in Fukuoka, Japan.

grow our business. We have also been able to secure existing jobs through new skills development and job transfers. The company's success is the best job guarantee for anyone. But I can understand that for the individuals exposed to these changes, it causes a lot of anxiety. That's why we engage in a dialogue with our people and offer competence upgrades. A Job Transfer Center for production employees in Denmark gives employees from downsized Danish production sites a chance to register their skills and preferences and be referred to jobs and relevant training within Novo Nordisk. Since May 2004, 166 employees have received a new job at Novo Nordisk through the centre. In another initiative, employee trade unions in Denmark and Novo Nordisk management took part in the Future Work Life project to explore conditions for and development opportunities in operations in Denmark over the next 10 years.

We appreciate the open dialogue; it's important that we can talk about these issues," says Niels-Erik Olsen.

### Many faces to globalisation

There is another side to the story: Novo Nordisk's investments in new and growing markets, often with struggling economies, are also seen as a boon. For example, Athos Avelino, mayor of Montes Claros, Brazil, welcomed Novo Nordisk's decision to invest substantially in an additional insulin production facility in his city. It meant jobs and a boost to the local economy.

The investment brings more money to our community, not just the 600 permanent jobs at the facility, but 2,500 construction jobs and

more service jobs to satisfy the needs of the influx of people into the city," says Mayor Avelino.

It comes down to balanced growth. Novo Nordisk views globalisation as an opportunity to retain its competitive edge as a focused pharmaceutical company through market expansion, global sourcing and building a diverse workforce. But these are transitions that must be handled responsibly. Novo Nordisk recognises its role in supporting balanced economic growth and assumes a particular responsibility wherever the company has a local presence. Global outreach and a strong international mindset are required in a globalised economy, as well as consistent values, global standards of business conduct and a readiness to deal with the concerns of those affected by the impact of globalisation.

### Getting access to talent

Globalisation is not only about moving work-places to locations with lower costs and taxation levels. It is also about getting access to international talent and investments.

In today's business environment, it is critical that we can attract the best people," says Kåre Schultz, chief operating officer for Novo Nordisk.

Among other things, this means having a presence where we have the best conditions for attracting top talent.

That was one of the reasons why the NovoSeven® marketing function was moved from Denmark to Zurich, Switzerland, in 2005. This decision offers a number of advantages seen from an operational and organisational perspective," says Kåre Schultz. The international environment, access to highly qualified people with pharmaceutical experience, and

the proximity to two of our regional headquarters make Zurich an attractive location.

### Wider reach, deeper impacts

With its global expansion Novo Nordisk achieves significant business benefits and helps build healthier societies through the provision of its core products and services.

In addition, the company seeks to measure its economic footprint and its contributions to social benefits and economic growth by providing increased employment, skills development, technology transfer and investments.

At the same time, establishing business and operations across diverse cultural and political boundaries exposes the company to a host of ethical challenges around issues such as labour rights, human rights and bribery and corruption. This makes it more essential than ever to ensure that business is conducted in accordance with the principles and values laid out in the Novo Nordisk Way of Management and the Triple Bottom Line approach.

To be better prepared to take on these challenges, in 2005, Novo Nordisk formulated a business ethics policy (see pp 36-37) setting global standards for ethical business conduct. Several support functions launched programmes in response to strategic responsibility challenges. Examples are the People Strategy with its focus on mobility and leadership development (see pp 28-29), and the corporate brand promise "changing diabetes" that builds on the company's core value propositions.

See more about Novo Nordisk's initiatives in response to globalisation at [novonordisk.com/annual-report](http://novonordisk.com/annual-report) Click: How we work





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## challenging workplace innovation and performance

# Quality Mindset sets the standard

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Novo Nordisk puts quality front and centre. Even more so after the establishment of Quality Mindset as a fundamental in the Novo Nordisk Way of Management. As consumers and governments are raising the quality bar, quality is turning into a real competitive parameter.

Today's healthcare consumers are demanding; they know good quality from poor, and they expect the best for themselves and their loved ones. People living with a chronic condition expect outstanding quality from the products they use every day over a lifetime. When product safety is called into question, it leads to general mistrust from consumers and raises awareness about the need for vigilance on quality matters.

It is not enough to simply comply with quality standards. We must ensure that the products we develop and manufacture meet the healthcare needs of the people we serve, and live up to their expectations for quality every time, long term, says Lars Almbloom Jørgensen, executive vice president, Quality, Regulatory Affairs and Business Development at Novo Nordisk.

Trust takes time to earn, and comes from consistently showing a strong quality mindset in everything the company does; from the products it brings to the market to the responsiveness of people across the organisation, he adds.

customer surveys indicate an improvement in the level of customer satisfaction.

Overall, Novo Nordisk follows a cut-no-corners philosophy in the way it develops new products and makes improvements. Quality is part of the way the company builds on its core competences and knowledge. For example, customers' suggestions for improvement were instrumental in the development of the NovoPen® insulin device product line that celebrated its 20th anniversary in 2005 with the newest-generation pen, NovoPen® 4 (see p15).

### Increased vigilance

Governments are becoming increasingly vigilant about ensuring that healthcare products live up to high quality standards in order to ensure safety for consumers and in the interest of society. Greater regulation and monitoring of product safety are being introduced worldwide, among other things through inspections to ensure that facilities employ Good Manufacturing Practice (GMP).

Novo Nordisk is in compliance with regulatory demands and averages approximately 50 inspections per year. None of the inspections in 2005 revealed any major non-compliance with regulations concerning customer health and safety.

In fact, the US Food and Drug Administration (FDA) has used the Novo Nordisk production facilities in Clayton, US, as a sterile product-processing training site for its inspectors. During such inspections,

and we do our best to live up to their trust, says Lars Almbloom Jørgensen.

Novo Nordisk has also introduced cLEAN®, the Novo Nordisk version of the LEAN production philosophy aiming at optimising flow and increasing productivity. It is a way of thinking, a new and smarter work culture being applied within quality, production, laboratories, processes, distribution channels and administrative units.

Within Product Supply its goal is optimisation throughout the supply chain by shortening lead times and focusing on zero defects, simplicity and continuous improvement. For Quality, it is also about improved monitoring of critical processes to prevent potential problems and allow effective communication.

The dedication to quality is a fundamental commitment to the millions of people using Novo Nordisk products every day.

### Faster response to customers

There are numerous examples of where cLEAN® has had positive results. For example, the Novo Nordisk Customer Complaint Center reduced the turnaround time from up to 20 calendar days to only two working days through a dedicated cLEAN® effort involving all employees in the Customer Complaint Center. Furthermore, the effort to improve customer relations through optimising complaint-handling continues.

Increased productivity in insulin production means that Novo Nordisk affiliates rarely face product shortages. Solving a bottleneck in the dispensing unit on the filling line at the Clayton

**Strong focus on quality**

A new fundamental principle has been added to the Novo Nordisk Way of Management: Everyone must continuously improve the quality of their work.

This is being integrated through a Quality Mindset that encourages all employees to work across organisational barriers. Some 14,000 separate quality action plans are consistently tracked. There has been a significant improvement in timely adverse event reporting and

the FDA trainers have identified some best practice processes used by the operation. Novo Nordisk requires the same GMP standards wherever it operates in the world. One important benefit from being vigilant about our quality standards has been the strengthening of relations with regulatory authorities. They've come to expect our facilities to be in good shape and in compliance,

facility reduced downtime by 93%. At the Chartres production facility, technicians carry out maintenance on machines while their colleagues are at lunch, so no time is wasted.

**See more about Novo Nordisk's Quality Mindset at [novonordisk.com/annual-report](http://novonordisk.com/annual-report) Click: How we perform**

**We have a tremendous responsibility to our customers. Every day, millions of people put their lives in our hands.**

**Lars Almbom Jørgensen executive vice president, Quality, Regulatory Affairs and Business Development, Novo Nordisk**

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## **When lives hang in the balance**

Every day, Signe Wenneberg juggles to keep her son Simon (centre), who is 10 and has type1 diabetes, healthy and happy. And at the same time keeping family life as normal as possible for little brother Noah, who is five. Being able to trust the insulin and insulin pump her son uses to stay in control of his diabetes gives her one less thing to worry about.

I know these products save my child's life every day, says Signe Wenneberg, a writer who lives in Denmark. I rely on these products but I don't take them for granted. There are so many things that can go wrong when you have a child with diabetes. You have to consider how much your child will exercise each day, what he will eat, whether the insulin in his schoolbag will be left out in the sun and get too warm. It's a huge pressure. Anything that can ease that pressure makes our lives easier.

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## news

### Employee share programme

To stimulate the ownership interest in the company and to provide incentive, the employees were granted a global offering of shares in the autumn of 2005. The offering includes approximately 1 million B shares (equivalent to around 0.3% of the total share capital), which was sold from the company's holding of treasury shares at a price of 150 Danish kroner per share. These shares will generally have a minimum restricted period of five years for employees in Denmark and three years for employees outside Denmark. A total of 13,400 employees have bought shares.

### Supporting youth soccer in Brazil

Seventeen Brazilian teenagers travelled to Denmark in 2005 to play in the Tivoli Cup 2005, an international soccer tournament with Novo Nordisk as its main sponsor. They made it undefeated through the tournament to win the

### Lars Rebien Sørensen, a principal voice

The president and CEO of Novo Nordisk was one of 13 individuals invited to take part in Principal Voices, a project aimed at stimulating discussion on some of the major challenges facing the world today. Throughout 2005, the project sponsors, *Time*, *Fortune* and CNN, in association with Shell, brought together a group of globally renowned experts in a series of videos, articles and round-table discussions.

finals. The youths come from the poor neighbourhoods around the city of Montes Claros, where Novo Nordisk has a production site. The soccer team is one of several community projects initiated by Novo Nordisk in the local community. There are 24 youths, ages 14 to 16, currently on the team, but that number will soon increase to 50 players.

Lars Rebien Sørensen has appeared on an ongoing basis on CNN from January to September. The Principal Voices video has been shown in more than 200 countries on five continents, reaching more than 147 million households.

In October, during a round-table discussion in London, Lars Rebien Sørensen offered his perspective on the role of a pharmaceutical company in improving diabetes care in the developing world.

### Novo Nordisk cited as sustainability leader

In its 2005 analysis of sustainability leadership, the Zurich-based SAM Group rated Novo Nordisk a Super Sector Leader in healthcare.

The rating places Novo Nordisk as a health-care leader on the global Dow Jones Sustainability World Index as well as the pan-European Dow Jones STOXX Sustainability Index. These global indexes track the financial performance of the leading sustainability-driven companies worldwide. Novo Nordisk is consistently placed among the best in the indexes, but this is the first time it has been named Super Sector Leader.

Lars Rebien Sørensen, president and CEO of Novo Nordisk, was awarded the Sustainability Leadership Award by the Sustainability Forum in 2005. The prize is given annually to an individual for personal leadership or pioneering work in implementing the



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## South African scoops media prize 2005

The winner of the 2005 Novo Nordisk Media Prize is South African journalist Justine Joseph. With a mother and stepfather with diabetes, Justine Joseph grew up in a household where diabetes was considered an opportunity for a healthier lifestyle rather than a burden. In the winning article in the South African magazine *Shape*, What diabetes can do for you, Justine Joseph describes how her family and close friends with diabetes lead full, healthy lives. The Novo Nordisk Media Prize, supported by IDF, was first awarded in 2003. A certificate and a 10,000 euro award are given every year for excellence in writing on diabetes in the lay press.

## Reaching out to disaster victims

A number of natural disasters in 2005 took a heavy toll on human life and suffering, including people with diabetes. In the aftermath of the devastating earthquake in Pakistan, Novo Nordisk committed 1 million Danish kroner (134,000 euros) from the company to the relief work. Half was directed to the Danish Red Cross in support of the organisation's general relief efforts in the region, while the other half is to be used at the discretion of the Novo Nordisk affiliate in Pakistan for projects aimed at rebuilding diabetes care infrastructure in the region. Directly after the earthquake, the affiliate donated insulin and other products worth around 0.7 million kroner (94,000 euros).

When Hurricane Katrina hit the Gulf Coast of the US, the Novo Nordisk US affiliate shipped

nearly 4 million US dollars (3.4 million euros) worth of FlexPen<sup>®</sup> insulin pens, insulin vials and needles to shelters, clinics and doctors in the area. Over 65,700 packages were sent to 118 different locations, benefiting many thousands of people with diabetes. Novo Nordisk has also matched private donations by staff to the American Red Cross. On top of this, a total cash donation of 1 million dollars (846,000 euros) was donated to selected relief organisations.

Other natural disasters recede from the headlines, but their painful legacy lives on. Sri Lanka is still trying to rebuild after the 2004 tsunami. In its continuing efforts to help the country, Novo Nordisk donated about 180,000 dollars (153,000 euros) to Sri Lanka in 2005 to help rebuild and upgrade the diabetes care facilities that were destroyed. The contribution will also provide necessary facilities for early detection and health education.

## Novo Nordisk ranked top place to work

The Novo Nordisk affiliates in Argentina, Brazil, Denmark, Sweden, the UK and the US were recognised as a Great Place to Work in 2005. In the UK competition, Novo Nordisk received a special award in the category Corporate Responsibility and in the European competition an award for Pride. Novo Nordisk in the UK and Sweden were both named among the 100 Best Workplaces in Europe.

Novo Nordisk in Brazil was named as one of the top 50 best workplaces for women in the country. In Argentina Novo Nordisk was named among the 100 best work-places in Latin America and as one of the three best companies to work for in Argentina.

All the awards were given by the Great Place to Work Institute. It organises annual competitions in 24 countries, asking employees about the level of trust and quality of relationships that exist between themselves and management.

Novo Nordisk was rewarded twice in Denmark during 2005 for diversity and equal opportunities. The MIA Prize for diversity, established by the Danish Institute for Human Rights with support from the EU, was presented to Novo Nordisk by Her Royal Highness Crown Princess Mary of Denmark. The prize for equal opportunities was awarded by the Great Place to Work Institute based on a survey among 100 Danish companies. Novo Nordisk was recognised for its guidelines on equal opportunities and their presence in the company's Balanced Scorecard.

The journal *The Scientist* ranked Novo Nordisk as the fourth best place to work in the world among large biotechnology and pharmaceutical companies. This was based on the responses of 1,600 scientists working in the US, Canada and Western Europe.

Her Royal Highness Crown Princess Mary of Denmark and Lise Kingo,





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V Anbazhagan, N Saravanan, SG Dilipkumar and R Kannaiyan are medical sales representatives in Chennai, India.

Martha White-Ewans works as a diabetes care specialist in Oakland, California, US.

## Spotlight on business ethics

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### THE BIG PICTURE

#### With integrity at stake, industry needs to act

Companies must take a forceful and vigilant stance against bribery and corruption and other violations of good business conduct. To achieve this, comprehensive ethics policies and procedures are essential. These require time and effort to develop and then improve, but a greater challenge still is to make sure that all employees live by them and to translate them into everyday business practices.

Applying business ethics is not just a matter of how a company's employees operate but also how the company's partners, its consultants and agents operate. They too must behave according to high ethical standards. The company must also communicate publicly to its stakeholders that they can expect the company to behave ethically.

For pharmaceutical companies, ethical issues often extend beyond bribery. Avoiding conflicts of interest, ethical marketing and ensuring that the health of consumers remains foremost must be integral to their ethical policies.

Pharmaceutical companies must be proactive and anticipatory rather than rely on simply responding when a crisis occurs. By adopting sound ethical policies and procedures, and implementing them openly and transparently, pharmaceutical companies can minimise the risk of corruption and foster confidence among their employees, their stakeholders and consumers at large.

*David Nussbaum*  
Chief executive, Transparency International

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David Nussbaum was invited by Novo Nordisk to provide a perspective on the hot topic of business ethics and to outline some of the issues currently under debate.

### NOVO NORDISK'S APPROACH

#### Providing clarity and direction for good business practice

Managers who work for the regional office of Novo Nordisk in Latin America often come to Maria Augusta S Buarraj, the region's legal manager, for guidance on how to deal with issues that come up in their daily business – for instance, the proper procedures regarding handling of donations.

Now Maria Buarraj's job, and that of the managers she advises, is a bit easier, thanks to a new Novo Nordisk business ethics policy launched in September 2005 and supported by new standard operating procedures and company-wide training.

Having the policy and procedures in place will help avoid different interpretations of what is acceptable practice, she says. The managers in our region have a good sense of what is ethical, but it can be a subjective matter; there are always grey areas. The policy makes very clear the company's ethical standards regarding donations, gifts and commission fees for local distributors, all of which our managers deal with as part of their everyday business. Taking the policy on board has not been difficult; in fact, it saves us time. And our

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Reiko Yanagisawa is a medical sales representative in Tokyo, Japan.

employees do expect a very high ethical standard from the company.

Novo Nordisk believes it is important for employees working in a high-pressure, competitive environment to have clear guidance on ethical behaviour. Increasingly, stakeholders expect companies to hold themselves to high standards of conduct. And companies that have clear guidance and transparency will be better prepared to respond to those expectations.

### **Facing dilemmas**

While the Novo Nordisk Way of Management serves as the overall guiding principles, the company recognises that, particularly in situations where ethical judgement is left to individual employees, those principles cannot stand alone. Staying true to principles of good business conduct can present dilemmas. Nevertheless, to Novo Nordisk this must never be used as an excuse.

Despite its long-standing commitments to conduct its business responsibly, dilemmas do emerge and must be addressed case by case. In a report published in October 2005 by an enquiry committee under the United Nations (UN), Novo Nordisk was mentioned as one of around 2,200 companies that allegedly paid so-called after-sales service fees in connection with contracts entered into under the UN Oil-for-Food Programme. Between 1996 and 2003, the programme enabled Iraq to sell limited quantities of oil to meet the humanitarian needs of its people during the economic sanctions that were imposed on Iraq following its invasion of Kuwait.

Novo Nordisk's own assessment is that no il-

legal activities have taken place in connection with Novo Nordisk's contracts or payments.

This situation does however underline the difficulty of operating in countries around the world with very different business practices.

This presents one dilemma, according to Lars Rebien Sørensen, president and CEO of Novo Nordisk:

We have supplied the Iraqi people with insulin for the last 15 years, and we have traded there for 30 years. If we had opted to withdraw from Iraq, I'm not sure that the Iraqis would have been able to obtain the medicine they needed, he says.

### **Putting policy into practice**

As a signatory to the United Nations Global Compact, Novo Nordisk is working actively to implement the 10 Global Compact principles into its business and within its sphere of influence. This includes working against all forms of corruption, including extortion and bribery. The new business ethics policy is backed by three procedures:

Business ethics dealing with conflict of interest, bribery, facilitation payments, donations and interaction with suppliers  
Promotion of pharmaceutical products covering interaction with public officials and healthcare professionals  
Novo Nordisk contracts with marketing consultants and agents concerning legal compliance, contracts and fees for services, deliverables and payments, accounting and documentation etc.

The procedures make clear how Novo Nordisk employees should act to preserve ethical standards. This includes a prohibition on political

contributions and limits for entertainment of customers. It also states that employees can never offer anything of value to a public official for the purpose of obtaining an improper benefit for Novo Nordisk.

It is the responsibility of all managers to communicate the new procedures to employees, promote business ethics and lead by example. Therefore, training in the policy and procedures began in January 2006. This includes mandatory e-learning for all managers worldwide.

Moreover, all top management groups in the markets, International Marketing and Strategic Sourcing will run customised workshops prepared by Corporate Legal during 2006 discussing business ethics within their area in detail.

In addition to the training, advice in specific situations is available to employees through the Corporate Legal function, concerns can be raised through a whistleblower function via the Audit Committee, and the Group Internal Audit and the facilitation function will review the implementation of business ethics. Furthermore, the commitment to business ethics is incorporated in the company's Balanced Scorecard.

**See more about Novo Nordisk's business ethics approach at [novonordisk.com/annual-report](http://novonordisk.com/annual-report)**  
**Click: How we perform**





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## values in action striking the balance

# Ethical practices guide medical research

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Demands for greater accountability and transparency are rising, with companies expected to show how they ensure ethical considerations in the process of bringing products to market.

Healthcare companies hold a unique ethical responsibility by the very nature of their business. While regulatory authorities monitor that research is conducted in accordance with relevant laws and universal principles, stakeholders also seek reassurance that companies consider any ethical concerns that may emerge. In particular, this is a matter of being respectful of the integrity of people participating in medical studies, animal welfare and culturally founded objections to certain types of research.

### Disclosure of clinical study results

The pharmaceutical industry came under fire in 2004. It was suspected of not making all results publicly available from its clinical trials, particularly results compromising the market value of its products. One response was a decision by the International Committee of Medical Journal Editors (ICMJE) to only publish clinical trial results from trials that had been registered in a public database at their inception. The US National Institutes of Health (NIH) extended their site for use on a global scale [www.clinicaltrials.gov](http://www.clinicaltrials.gov). Additionally, the Pharmaceutical Research and

end of 2005 and 73 trials for marketed compounds posted on the PhRMA site.

Honest and full disclosure of all studies is an important first step towards transparent and ethical practices. What we need to do next is to establish a mechanism for independent validation and a body to monitor and execute any required sanctions, says Torben V Schroeder, member of the ICMJE and editor of the *Journal of the Danish Medical Association*.

### Informed consent

The principle of informed consent is at the core of human drug testing and is contained in guidelines endorsed worldwide, such as the World Health Organization's Helsinki Declaration. These rules prohibit coercion and trickery, and give patients the right to withdraw from a trial at any time for any reason. A hotly debated topic is whether informed consent can be upheld in countries where the participants may be impoverished and illiterate or where government ethical oversight may be lacking or limited. Obtaining informed consent also presents dilemmas, such as in cases where patients' condition makes them unable to give informed consent.

Novo Nordisk ensures that the people participating in the trials are given detailed information both verbally and in written form. We provide information on the purpose of the trial in the native language, both the potential risks and benefits of

ceutical and medical products, and is required by regulatory authorities. However, it is also a source of concern for many people. That is why animal experimentation is one of the industry-specific reputational risks identified by financial analysts. They want to see evidence that companies duly consider this issue, and are also vigilant in looking for best practices.

Novo Nordisk has a long history of engaging with stakeholders such as animal welfare organisations to find solutions for improving the welfare of experimental animals. The company recognises that not all animal experiments can be replaced in the foreseeable future, but will only use animals where no available and acceptable alternative exists. With its ongoing commitment to finding new ways to replace, reduce and refine the use of animals for testing (the three Rs), Novo Nordisk has been setting new standards in this area. One example is the state-of-the-art housing standards.

Due to a higher activity level in the discovery phase in 2005, there was a 22% increase in the number of purchased animals, from a total of 47,311 to 57,905 animals, of which 97% are mice, transgenic mice and rats.

Novo Nordisk is the pioneer of a new discipline called biosimulation, which involves computer models that simulate human beings as closely as possible. In the long term, biosimulation can lead to fewer and better experiments on animals, and fewer people will be needed for clinical trials of new drugs. Novo Nordisk is the only healthcare company participating in a new,

Manufacturers of America (PhRMA), an industry association, established a site to hold clinical information and references to publications, and requested its member companies to include all clinical trials finalised after 1 October 2002 for marketed products ([www.clinicalstudyresults.org](http://www.clinicalstudyresults.org)). Novo Nordisk complies with the ICMJE requirements and also posts its trial results on the PhRMA site. The ICMJE requires the registration of trials that started recruiting on or after 1 July 2005. Because many ongoing trials were not registered at inception, the ICMJE will consider for publication ongoing trials registered before 13 September 2005. Novo Nordisk has met both deadlines, with 51 trials of compounds registered at the NIH site by the

participation, says Anders Dejgaard, chief medical officer in endocrinology reporting, Novo Nordisk. We make sure that illiteracy, poverty or cultural barriers do not prevent a person's full understanding of the issues involved in participating in a clinical trial. Moreover, we only initiate trials in countries that can provide approval from an external local ethical committee.

**Leading standards for animal welfare**

The use of animals is essential for the discovery, development and production of pharma-

EU-supported network of scientists working on biosimulation.

See more about Novo Nordisk's bioethics at [novonordisk.com/annual-report](http://novonordisk.com/annual-report)  
Click: How we perform

**Full disclosure of clinical trial results ensures that the public can access information that helps shape medical decision-making.**

Anders Dejgaard chief medical officer, Novo Nordisk

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## Environmental strategy builds the business case

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Today, with ample evidence that the global climate *is* changing, there is a strong case for global leaders to take responsible action. The business case is equally clear: proactively preparing for a carbon-constrained future is a matter of cost-effective environmental management and risk mitigation.

While the world's political leaders were preparing to travel to Montreal, Canada, for what was to become an encouraging breakthrough commitment to negotiate future binding CO<sub>2</sub> reduction targets, more than 130 people from Novo Nordisk with responsibilities for environmental management in Product Supply and Research & Development met in Denmark to kick off an ambitious plan for CO<sub>2</sub> reductions: by 2014, the company will have achieved a reduction of 10% of its CO<sub>2</sub> emissions as compared with 2004 emission levels.

The target has been defined in an agreement with WWF, which makes Novo Nordisk the 10th company in the world to become a member of the Climate Savers programme.

Climate change cuts across the dimensions of the Triple Bottom Line: it is now generally recognised as a huge global challenge, with potentially devastating consequences for the world's environment, for people's health and for economic development. To Novo Nordisk it also taps directly into the company's strategic business objectives.

an ambitious stretch target, says Per Valstorp, senior vice president of Novo Nordisk Product Supply. In the absence of emission reduction programmes, Novo Nordisk's emissions would increase by approximately 67% during the period 2004-2014.

Such projections speak for themselves. Given the diabetes pandemic, there will be increased demand for insulin, and manufacturing facilities are bound to be expanded within the 10-year timeframe. Furthermore, the production of insulin analogues is highly resource intensive.

The CO<sub>2</sub> strategy encompasses all production sites globally and will also be implemented under the broad umbrella of the cLEAN® programme. The significant CO<sub>2</sub> reductions will be achieved through a broad range of measures which include energy efficiency, fuel switching and conversion to renewable sources. Given the fact that currently 91% of the company's CO<sub>2</sub> emissions arise in Denmark, where energy supplies are predominantly based on fossil fuels, significantly reducing CO<sub>2</sub> emissions will require genuinely innovative thinking and technology leaps, and most importantly it will rely on the active participation of everyone in the organisation.

We believe that we can find 20% of the necessary CO<sub>2</sub> reductions through energy savings, and that is why we invited all of our people responsible for environmental management to get involved. They know our equipment and processes better than anyone, and they have already given us many ideas to explore, says Per Valstorp. Furthermore, Novo

Nordisk Product Supply is well underway in implementing cLEAN® – an adapted LEAN manufacturing programme that aims at optimising flow and increasing productivity. In other words, cLEAN® leads to better exploitation of production facilities, raw materials and energy, thereby making it possible to postpone expansions of production facilities. By producing more with less, so to speak, cLEAN® will have a significant positive effect on the use of energy, and consequently CO<sub>2</sub> emissions.

### Revisiting priorities

In 2005, Novo Nordisk revisited its environmental strategy to prioritise and align environmental focus areas with business objectives. While the climate change strategy is the number one priority, other corporate-led initiatives look at different aspects of the products lifecycle: the safe use of genetically modified organisms (GMOs), sustainable processes, product stewardship, transportation and supply chain management. Regular management of environmental impacts, in turn, is organised through ISO 14001-certified processes at the individual sites. Here, compliance with regulatory requirements, pollution prevention and eco-efficiency are the responsibility of line managers, and achieving these targets is factored into their bonus schemes.

**Going for a stretch target**

The Climate Savers agreement marks the successful conclusion to more than a year of preparations, assessments and investigations. We have indeed set the organisation up for

See more about the strategic priorities and environmental data at [novonordisk.com/annual-report](http://novonordisk.com/annual-report). Click: [How we perform](#)

With the stretch targets in our CO<sub>2</sub> strategy, we want to challenge perceptions of what can be done and demonstrate that there is a solid business case for protecting the environment.

Per Valstorp senior vice president, Product Supply, Novo Nordisk





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# Reporting against global standards

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Novo Nordisk has chosen an integrated approach to reporting on its financial and non-financial performance. Hence, this report follows current international standards in terms of both mandatory and voluntary reporting.

The *Novo Nordisk Annual Report* is the responsibility of the Board of Directors and Executive Management. The information is audited and assured (see pp 106-107).

### IFRS

As of 2004, Novo Nordisk's financial accounting principles comply with International Financial Reporting Standards (IFRS) as adopted by the EU. This is one year ahead of requirements.

### Sarbanes Oxley

In 2005, again a year ahead, Novo Nordisk is in full compliance with the requirements of documenting and reporting on the effectiveness of

internal controls over financial reporting, as required by the Sarbanes Oxley Act. Novo Nordisk provides this information in its Form 20-F filed in February 2006.

### Corporate governance codes

As an international company listed on the stock exchanges in Copenhagen, New York and London, Novo Nordisk is in compliance with Danish, US and UK securities laws, with the Danish Recommendations on Corporate Governance, and is in general in compliance with corporate governance standards on the New York and London Stock Exchanges.

### AA1000 Framework

Novo Nordisk's non-financial reporting follows the accountability standard, AA1000 Framework. It states that reporting must provide a complete, accurate, relevant and balanced picture of the organisation's approach to and impact on society. The annual report is assured against AA1000AS.

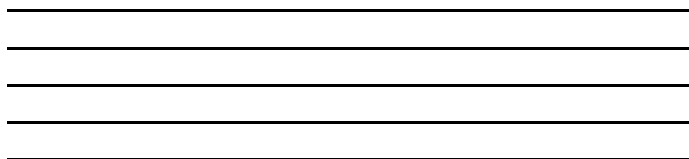
### Global Reporting Initiative Guidelines

Novo Nordisk reports in accordance with the Global Reporting Initiative's (GRI's) 2002 Sustainability Reporting Guidelines which require reporting according to 11 principles and against a list of indicators. In the online report there is a GRI index with an overview of the full in accordance reporting.

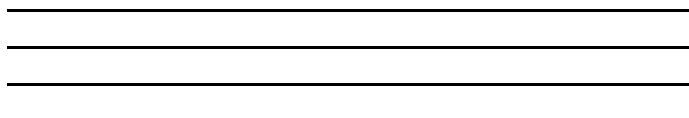
### Global Compact

Novo Nordisk is a signatory to the United Nations Global Compact, a platform to promote good corporate principles and learning in the areas of human rights, labour, environment and anti-corruption. The company reports on actions to implement its 10 principles during 2005 in a Communication on Progress, including performance metrics aligned with the GRI Guidelines.

See Novo Nordisk's performance data at [novonordisk.com/annual-report](http://novonordisk.com/annual-report)  
Click: How we perform



[Novo Nordisk's GRI Content Index 2005 at a glance](#)



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**Indicators Level of reporting**

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Vision and strategy1.1, 1.2 2

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Profile2.1 2.22 22

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Governance structure and management systems3.1

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GRI Content Index4.1 1

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Fully reported / Number of indicators      Not reported /  
Number of indicators

**Global Reporting  
Initiative Guidelines**

Novo Nordisk reports in accordance with the Global Reporting Initiative's (GRI's) 2002 Sustainability Reporting Guidelines. This approach offers a comprehensive, balanced and transparent account of the company's sustainability performance. In essence, this means that the reporting is based on 11 sound principles for sustainability reporting and that it responds to 142 indicators covering economic, environmental and social aspects of the business performance.

The table illustrates how Novo Nordisk responds to the GRI indicators. In most cases reporting covers all aspects of the

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indicators. This is marked as fully reported. For the remaining indicators, Novo Nordisk reports only on some aspects of the indicator; this is marked as not reported. In these cases, however, an explanation for the omission is offered in the GRI Content Index, available in the online report. Typically, this is either because the indicator is irrelevant to Novo Nordisk's operations or because it is not possible to generate the required information.

**See Novo Nordisk's GRI Content Index at**  
[novonordisk.com/annual-report](http://novonordisk.com/annual-report)  
**Click: How we are accountable**

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## Management report and discussion

Novo Nordisk is very pleased with the strong financial results that have been achieved in 2005. This has been a year of continued strong demand for Novo Nordisk's key strategic products: the insulin analogues and NovoSeven®. There has also been solid growth in the sales of products within Novo Nordisk's other therapeutic areas.

During 2005, the company continued to realise efficiency gains in its production. In combination with the strong growth in sales this has enabled Novo Nordisk to further expand the diabetes care sales force in the important North American market as well as in key markets in Europe. Furthermore, additional funds have been allocated to research and development to ensure the best possible foundation for moving key projects forward in clinical development.

### Business performance and discussion

Reported sales in 2005 of DKK 33,760 million correspond to a sales growth of 16% as compared with sales in 2004 of DKK 29,031 million, with the key drivers of growth being:

- Sales of insulin analogues increasing by 62% supported by the continued roll-out of Levemir® and NovoMix® in Europe and International Operations
- Sales of NovoSeven® increasing by 16% reflecting growth within all regions and with North America as the primary contributor to growth
- Sales in North America increasing by 27%
- Sales in International Operations increasing by 25%

thereby exceeding the expectations for operating profit as communicated in January 2005. Measured in local currencies and excluding the impact from non-recurring items operating profit increased by around 20% thereby exceeding the long-term financial target of 15%, which formed the basis for the operating profit growth expectations for 2005.

The operating margin for 2005 was realised at 24.0%, unchanged relative to the previous year. The unchanged operating margin mainly reflects efficiency gains in production and administrative areas countered by a lower level of non-recurring income. The impact in 2005 from development in foreign exchange rates on operating margin is negligible.

Net financials amounted to an income of DKK 146 million for 2005, as compared to an expected income of DKK 100 million at the beginning of 2005.

The effective tax rate decreased to 28.8%, from 32.8% in 2004. This is lower than expected in January 2005 but is mainly the result of a reduction in the Danish corporation tax from 30% to 28%, effective for the full income year of 2005 onwards, and a non-recurring reduction due to the tax-exempt status of non-recurring income from Ferrosan A/S and ZymoGenetics, Inc.

Net profit increased by 17% to DKK 5,864 million, as compared to the 2004 level of DKK 5,013 million. Earnings per share (diluted) thereby increased from DKK 14.83 to DKK 17.83 in 2005, corresponding to a growth of 20%.

The total net capital expenditure for property, plant and equipment was realised at DKK 3.7 billion in line with expectations for the year when including the acquisition of tangible assets of approximately DKK 300 million from Aradigm Corporation related to the AERx® iDMS project.

Return on invested capital (ROIC) was 24.7%, an increase from 21.5% in 2004. This is mainly due to operating profits, less taxes, increasing at a higher rate than the average invested capital combined with a positive impact from the non-recurring impact on the effective tax rate. Adjusted for the impact of the effective tax rate from non-recurring items, ROIC was realised at 23.9% in 2005.

The cash to earnings ratio for 2005 was 82%, slightly down from 85% in 2004. The free cash flow for 2005 was expected to be more than DKK 2 billion, but was realised at a significantly higher level of DKK 4.8 billion, reflecting primarily the higher realised net profit for 2005, an increase in trade payables and a positive impact from the sale of shares in Ferrosan A/S.

### Long-term financial targets

Following the demerger of Novozymes towards the end of 2000, Novo Nordisk communicated four long-term financial targets in early 2001. Focusing on growth, profitability, financial return and generation of cash, the four targets have served to balance short- and long-term considerations, thereby ensuring a



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Sales measured in local currencies increasing by 15%.

Operating profit increased by 16% to DKK 8,088 million from DKK 6,980 million in 2004,

Ratio	Previous target	Result 2005	Three-year average 2003 2005	New target
Operating margin	25%	24.0%	24.2%	25%
Growth in operating profit	15%	15.9%	11.0%	15%
Return on invested capital (ROIC)	25%	24.7% <sup>1)</sup>	21.6%	30%
Cash to earnings (three-year average)	60%	82.4% <sup>2)</sup>	82.4%	70%

1) Excluding the non-recurring reductions in 2005 in the effective tax rate, ROIC would have been 23.9%

2) The cash to earnings ratio is 82.4% both for the year 2005 and as an average for the period 2003 2005

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## management report and discussion

focus on shareholder value creation.

By 2005, Novo Nordisk was approaching the achievement of the long-term financial targets. The four ratios are still considered the best way to ensure value creation; however, the current targets are no longer providing sufficient guidance on the targeted financial performance on a five-year horizon. Following a review, the targets for the four ratios have been reassessed and the updated targets are illustrated below.

The updated targets are guiding the financial development of Novo Nordisk given the current scope of business activities. Individually, and on a combined basis, these four financial targets are considered to be competitive compared to the overall performance of the pharmaceutical industry.

The target for operating margin remains at 25%, as further productivity improvements in production and administrative areas are expected to be re-invested in research and development activities.

The targeted growth in operating profit remains at 15% on average. The target allows for a deviation in an individual year if necessi-

tated by business opportunities or market conditions.

The target for return on invested capital (ROIC) measured post tax is raised from 25% to 30%. The increased target reflects the expectation of continued lower growth in invested capital compared to operating profit as well as a recurring lower effective tax rate, partly due to the lowering of the Danish corporate tax rate from 30% to 28% effective for the year 2005 onwards.

The targeted cash to earnings ratio is raised from 60% to 70% reflecting the improved cash conversion ability in the last three years. As previously, this target will be pursued as an average over a three-year period. Performance measured by this ratio may be impacted in individual years by significant in-licensing activities or other major investments.

### Sales development by segments

Sales in 2005 increased by 16% in Danish kroner and by 15% measured in local currencies. Sales growth was realised both within dia-

betes care and biopharmaceuticals primarily driven by the portfolio of insulin analogues as well as NovoSeven®. Furthermore, sales of growth hormone therapy products contributed to growth.

Sales growth was realised in all regions. The main growth driver was North America, constituting 28% of total sales, followed by International Operations with 18% of total sales.

The growth of 16% in sales for 2005 exceeded the around 10% growth expectations outlined in January 2005 as a result of improved currency exchange rates as well as a stronger underlying sales performance.

### Diabetes care

Sales of diabetes care products increased by 17% in Danish kroner to DKK 24,012 million compared to 2004 and by 16% in local currencies.

#### *Insulin analogues, human insulin and insulin-related products*

Sales of insulin analogues, human insulin and insulin-related products increased by 18% measured in Danish kroner to DKK 22,304



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## management report and discussion

million and by 17% in local currencies. All regions contributed to growth measured in local currencies as well as in Danish kroner, with North America and International Operations having the highest growth rates.

Novo Nordisk continues to consolidate its global leadership position within the insulin segment: the company's total insulin market share worldwide is 51% and the analogue market share is 34%, both measured in volume. The similar market shares in 2004 were 50% and 28%, respectively.

Sales of insulin analogues increased by 62% in Danish kroner to DKK 7,298 million in 2005 and by 61% in local currencies. Insulin analogues constituted around 62% of the overall sales growth for Novo Nordisk in 2005, measured in local currencies, as compared to 55% in 2004.

### North America

Sales in North America increased by 40% in Danish kroner and by 39% in local currencies in 2005, reflecting solid sales performance for the insulin analogues NovoLog® and NovoLog® Mix 70/30. Novo Nordisk now holds 38% of the total US insulin market and 23% of the analogue market, both measured in volume. The similar market shares in 2004 were 34% and 18%, respectively. The human insulin products also contributed to the sales increase in 2005 due to higher volumes and higher average sales prices.

Novo Nordisk has in the final quarter of 2005 expanded its US diabetes care sales force by adding around 400 individuals, thereby bringing the total sales force to 1,200. The company is thereby well positioned to launch Levemir® in the US market, which is expected to take place during the second quarter of 2006.

The primary growth drivers in 2005 were sales in China, Russia and Brazil. China accounted for close to 20% of total insulin sales in International Operations and 25% of the increase in insulin sales during 2005. Novo Nordisk holds close to 60% of the Chinese insulin market, measured in volume.

Whereas insulin sales in International Operations remain dominated by human insulin products, the portfolio of insulin analogue products continues to add to the overall sales growth in the region, with Turkey and Russia as the largest growth drivers. Novo Nordisk remains the overall insulin market leader within the International Operations region and also holds the leadership position within insulin analogues.

### Japan & Oceania

Sales in Japan & Oceania increased by 10% in Danish kroner and by 11% in local currencies, primarily reflecting higher sales of NovoRapid® and NovoRapid® 30 Mix, assisted by the ongoing switch from durable to prefilled devices. In Japan, Novo Nordisk holds close to 60% and in Australia close to 70% of the insulin analogue market, measured by volume.

### Oral antidiabetic products

Sales of oral antidiabetic products increased by 4% in Danish kroner to DKK 1,708 million and by 3% in local currencies, compared to 2004. While the sales development was positive both in Europe and International Operations, this was partly offset by slightly lower sales in the US market, compared to 2004, reflecting a lower market share for Prandin®.

### Biopharmaceuticals

Sales of biopharmaceutical products increased by 15% in Danish kroner to

the high penetration within spontaneous bleeds in congenital inhibitor patients, the predominant part of the growth within the inhibitor segment was generated by treatment of acquired haemophilia patients and usage of NovoSeven® in connection with elective surgery. Treatment of spontaneous bleeds for congenital inhibitor patients remains the largest area of use. In addition, sales are perceived to have been positively affected by increased investigational use of NovoSeven®.

### Growth hormone therapy (Norditropin® and Norditropin® SimpleXx®)

Sales of growth hormone therapy products increased by 20% in Danish kroner to DKK 2,781 million and by 20% in local currencies, and all regions contributed to the sales increase compared to 2004, with North America and Europe having the highest growth rates. The NordiFlex® prefilled ready-to-use delivery device was the main reason for the increase in sales.

### Other products

Sales of other products within biopharmaceuticals, which predominantly consist of hormone replacement therapy (HRT) products, increased by 4% in Danish kroner to DKK 1,903 million and by 4% in local currencies compared to last year. The main sales increase occurred in the US market, while sales in Europe were slightly above the levels realised in 2004.

## Costs, licence fees and other operating income

The cost of goods sold increased by 14% to DKK 9,177 million, representing a gross margin of 72.8%, compared to 72.3% in 2004. The improvement mainly reflects an

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### Europe

Insulin sales in Europe increased by 8% in Danish kroner and by 7% in local currencies, primarily reflecting progress for the portfolio of insulin analogues, including Levemir®. Novo Nordisk continues to consolidate the leadership position in the insulin analogue market, holding 43% of the market, measured in volume.

### International Operations

Sales in International Operations increased by 27% in Danish kroner and by 23% in local

DKK 9,748 million and by 14% in local currencies compared to 2004.

### *NovoSeven*®

Sales of NovoSeven® increased by 16% in Danish kroner to DKK 5,064 million and by 16% in local currencies compared to 2004. All regions contributed to the increase in sales, with North America as the main contributor to growth.

The sales growth of NovoSeven® was influenced by several factors during 2005. Due to

improved product mix and increased production efficiency.

Total non-production-related costs increased by 16% to DKK 16,898 million. The increase in non-production-related costs in particular reflects increased sales and distribution costs, which increased in line with the growth in sales. This was mainly due to the increase in the US diabetes care sales force during the fourth quarter of 2005 as well as costs related to the continued roll-out of Levemir® in the European market, including expansion of sales forces in key markets.

Total costs related to depreciation, amorti-

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## management report and discussion

sation and impairment losses in 2005 were DKK 1,930 million compared to DKK 1,892 million in 2004. The costs for 2005 include DKK 171 million in impairment charges, primarily related to fixed assets, compared to DKK 326 million in 2004.

In 2005, Novo Nordisk expensed costs in relation to share-based incentive programmes for senior management and other senior employees amounting to DKK 83 million. The comparable expense for 2004 was DKK 104 million. In addition, costs amounting to DKK 140 million in connection with the previously announced general employee share programme were expensed during the fourth quarter of 2005.

Licence fees and other operating income in 2005 were DKK 403 million, compared to DKK 575 million in 2004, reflecting a lower level of non-recurring income in 2005.

### Net financials and tax

Net financials showed an income of DKK 146 million in 2005 compared to an income of DKK 477 million in 2004.

The result from associated companies was an income of DKK 319 million compared to an expense of DKK 117 million in 2004, primarily reflecting Novo Nordisk's share of the net loss in ZymoGenetics, Inc being more than offset by total non-recurring gains during 2005 of approximately DKK 450 million from sales of shares in Ferrosan A/S and an offering of new shares in ZymoGenetics, Inc.

The foreign exchange result was a loss of DKK 40 million compared to a gain of DKK 533 million in 2004. The loss on foreign exchange in 2005 reflects losses from foreign exchange hedging activities due to the higher level in 2005 of especially US dollars versus Danish kroner compared to 2004. In accordance with IFRS, an unrealised loss of DKK 345 million was deferred by the end of December 2005 for profit and loss recognition in 2006 and 2007 when the hedged operational cash flows occur.

Novo Nordisk has as per 26 January 2006 hedged expected net cash flows in US dollars, Japanese yen and British pounds for 13, 12 and 10 months respectively. In accordance with IFRS, the financial impact from foreign

exchange contracts will be included in Net financials as the underlying operational cash flows materialise.

The effective tax rate for 2005 was 28.8%, a decrease from 32.8% in 2004, equivalent to a total tax expense of DKK 2.4 billion in 2005. The lower effective tax rate for 2005 is a result of several factors, including the reduction of the Danish corporate income tax rate from 30% to 28%, effective for the entire 2005, and a beneficial impact from the re-evaluation of the company's deferred tax liabilities, as well as the tax-exempt status of the non-recurring gains from associated companies as mentioned above.

### Capital expenditure and free cash flow

Net capital expenditure for property, plant and equipment for 2005 was realised at DKK 3.7 billion, compared to DKK 3.0 billion for 2004. The main investment projects in 2005 were the expansion of purification and filling capacity for insulin products.

Free cash flow for 2005 was realised at DKK



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## management report and discussion

4.8 billion compared to DKK 4.3 billion for 2004.

Novo Nordisk's financial resources at the end of 2005 were DKK 11.4 billion compared to DKK 10.2 billion in 2004. Included in the financial resources are undrawn committed credit facilities of approximately DKK 7.5 billion.

### Non-financial performance

In managing its business with a Triple Bottom Line approach, the corporate Balanced Scorecard reflects financial as well as non-financial goals that are subsequently cascaded as appropriate to line management. Moreover, the performance-based incentive programme for Executive Management and the Senior Management Board is based on long-term value creation, following achievement of predefined overall business-related targets (see management's remuneration p 83).

### Performance indicators

A set of top-level indicators help track the company's performance in terms of economic, environmental and social responsibility. They relate to areas of strategic importance: direct and indirect economic impacts; direct and indirect environmental impacts; and internal (people) and external (patients and society) social impacts. See performance data and comments in the consolidated non-financial statements on pp 92-97.

In addition, Novo Nordisk reports in accordance with the Global Reporting Initiative's 2002 Sustainability Reporting Guidelines and the principles of the Global Compact (see p 40).

### Defining materiality

Ongoing interactions with

### Economic impacts

#### *Job creation*

In 2005, Novo Nordisk created 1,735 new positions globally and had 22,007 full-time positions, measured as full-time equivalents (FTE). This is an increase of 8% from 2004. These jobs translate into 52,200 indirect jobs globally, primarily in the supply chain from production needs, but also as a result of employees' private consumption.

#### *Economic contribution in Denmark*

Novo Nordisk's sales in 2005 accounted for 2.2% of the Danish GDP. The company's economic contribution to overall economic wealth for the Danish society through the value added was 1.3% of gross value added (GVA), and 4.8% of Danish exports compared to 3.9% in 2004.

### Environmental impacts

#### *Eco-efficiency*

In 2005, Novo Nordisk continued to improve eco-efficiency, a measure for the ability to produce more pharmaceutical products with less use of water and energy. In the period 2001-2005 the average annual realised improvements were 8% for water and 14% for energy as measured by EPI indices. Hence, the five-year targets of improvements of the water and energy use efficiency at 5% and 4% per annum respectively were achieved.

#### *Climate change*

At the end of 2005, Novo Nordisk finalised a climate strategy that sets an ambitious target for reducing its CO<sub>2</sub> emissions by 10% in the period 2004-2014 as compared with 2004. In the absence of reduction initiatives, the company's emissions would increase by 67% in line with production growth. The target has

of regulatory limit values increased to 174 from 74 in 2004. The number of accidental releases increased from 29 in 2004 to 83 in 2005.

The registered breaches and accidental releases are evaluated to be minor incidents with no or only minor impact on the external environment. Out of 174 breaches of regulatory limits 164 (94%) are related to pH and temperature in waste water, which are monitored through continuous measurements. The number of breaches is largely due to the fact that at several production sites there have been challenges in managing pH levels in the wastewater in spite of the fact that the company has invested up to DKK 10 million per neutralisation system at some sites.

A total of 50 out of the 83 accidental releases (60%) were related to accidental releases of cooling agents such as HCFCs and HFCs. In 2005, a campaign set focus on accidental releases from these types of facilities. There was one accidental release of GMOs at the site in Montes Claros. There will be a continued focus on compliance and preventive measures to help curb the curve.

In 2006, a three-stringed approach will be taken to ensure increased focus on compliance: first, a revision of approvals in close cooperation with authorities, second, education, and third, focused exchange of experiences.

#### *Environmental management*

Global implementation of environmental management standards progresses on schedule. In 2005, an additional two of Novo Nordisk's production facilities achieved ISO 14001 certification. This is instrumental in focusing local management on pollution prevention and compliance.



stakeholders, trend-spotting, business monitoring and the integrated systematic risk management process are tools to identify the issues that are material to Novo Nordisk's business. As a result of these processes Novo Nordisk frames its strategic response and defines its targets. The company regularly reviews its key priorities to ensure that they reflect current agendas and reports on progress.

been defined in an agreement with the WWF, which makes Novo Nordisk the 10th company in the world to become a member of the Climate Savers programme. The significant CO<sub>2</sub> reductions will be achieved through a broad range of measures including improved energy efficiency, fuel switching and conversion to renewable sources.

*Compliance*

In 2005, Novo Nordisk continued to be challenged on compliance. The number of breaches

*Sustainable supply chain management*

During 2005, a total of 340 suppliers, accounting for 20% of the total value of Novo Nordisk's purchases, were evaluated on their environmental and social performance. Of these, 87% reported a satisfactory performance, while 8% received a rating for poor environmental performance and 5% of suppliers received a rating for both poor environmental and social performance. Following implementation of corrective actions, Novo Nordisk has not yet had to withdraw from the relationship as a result of repeated poor performance.

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As of 2005, the programme includes audits of suppliers, following similar processes as Novo Nordisk's regular quality audits. In 2005, 12 of 340 key suppliers were audited. These are mainly located in countries with high risk of violation of Novo Nordisk's requirements. The conclusions from the audits are a generally satisfying social and environmental performance. A close follow-up on non-satisfactory performance ensures that corrective actions are taken.

### Social impacts

#### *People*

Living the values is a key performance parameter, as this is seen to impact business results. In 2005, there was a 100% fulfilment of action plans arising from facilitations which support a company-wide adherence to the Novo Nordisk Way of Management.

Employee satisfaction surveys underscore the internal support for the company's values-based approach. In the annual employee survey, the average of respondents' answers as to whether social and environmental issues are important for the future of the company were

on a par with 2004 4.2 (on a scale from 1 to 5, with 5 being the highest score). The average of respondents' answers as to whether their manager's behaviour is consistent with Novo Nordisk's values was 4.0, which is at the same level as in 2004.

In the same survey, employees were asked whether their work gives them an opportunity to use and develop their competences and skills. The average of respondents' answers remained at a high level of 3.8. The average of respondents' answers to the question as to whether people from diverse backgrounds have equal opportunities increased from 3.8 to 3.9. This reflects the company's focus on equal opportunities and diversity management.

The rate of absence remained at 3.2, while the rate of employee turnover increased from 7.3 in 2004 to 8.0 in 2005.

While the health and safety initiatives in the organisation focus on prevention, additional measures will be made to prevent occupational injuries and improve the working environment, as there was a notable increase in the frequency of occupational injuries from 5.6 per million working hours in 2004 to 7.3 in

2005, which is not satisfactory. These figures cover the entire organisation; however, 70% of the injuries happen at production sites.

#### *Patients*

In 2005, Novo Nordisk provided insulin for 12-14 million people around the world. Of these, 6.5 million live in Europe, the US, Japan & Oceania; the remaining 5.5-7.5 million people live in the International Operations region. The range here is due to the fact that in the developing world two or three persons may share a daily dose of insulin.

During 2005, Novo Nordisk set off leading the fight against diabetes. With its mission of changing diabetes, concerted efforts focus on improved health management for people with diabetes and preventative measures for those at risk of acquiring it. The goal is to effectively curb the curve of the global diabetes pandemic.

Among the initiatives in 2005 was the Oxford Health Alliance that was established as an independent body to focus attention on prevention of chronic diseases.

Novo Nordisk's programmes to help provide global access to health continued in 2005. It is



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estimated that the corporate and locally-driven programmes, most notably the National Diabetes Programme, reach out to at least 22 million people through awareness raising, education, diagnosis or treatment.

For 2005, Novo Nordisk offered its best possible pricing scheme to all 50 Least Developed Countries as defined by the United Nations. Novo Nordisk operates in 35 of these countries, and during 2005, the company sold insulin in 32 of the LDCs at or below the maximum price at 20% of the average prices in the Western world.

### *Society*

In 2005, Novo Nordisk implemented a new global business ethics policy supported by a set of guidelines. The policy adheres to the principles of the UN Convention against Corruption and the Global Compact. Implementation measures include training, an advisory function and compliance audits.

Full disclosure of current clinical studies was completed within the deadlines requested by the Pharmaceutical Research and Manufacturers of America (PhRMA) and the International Committee of Medical Journal Editors (ICMJE). Each of these bodies specifies a website at which clinical trial results must be registered. By the end of 2005, Novo Nordisk had 51 trials of compounds registered at the website required by the ICMJE and 73 trials for marketed compounds at the PhRMA site.

### *The value of knowledge*

People and talent development is one of the cornerstones in the People Strategy. This includes offers for continued education for all, talent pools and leadership training. In 2005, the annual spending for training,

Novo Nordisk is thereby the only company with a complete range of insulin analogues approved in the US, encompassing rapid-acting NovoLog<sup>®</sup>, premixed NovoLog<sup>®</sup> Mix 70/30 and now also the long-acting analogue, Levemir<sup>®</sup>. Novo Nordisk expects to launch Levemir<sup>®</sup> in the US market in the second quarter of 2006.

Levemir<sup>®</sup> was also filed for marketing approval in Japan. As is already the case in the US and Europe, Novo Nordisk expects, upon approval of the product, to be the first and only company with both rapid-acting, premixed and long-acting insulin analogues in Japan.

In Europe, the European Commission has extended the marketing authorisation for Levemir<sup>®</sup> to include treatment of diabetes in children and adolescents 6-17 years of age. Moreover, an extended authorisation has also been received in Europe for NovoRapid<sup>®</sup> to include treatment of diabetes in children 2-6 years of age. Also the US regulatory authorities (FDA) extended the marketing authorisation for both NovoLog<sup>®</sup> and Levemir<sup>®</sup> to include paediatric treatment.

A label expansion for NovoLog<sup>®</sup> Mix 70/30 in the US has been approved by the FDA. Key additions to the label include blood glucose control data showing that more patients on a NovoLog<sup>®</sup> Mix 70/30 regimen reach an HbA1c target of 7.0% compared to treatment with a basal insulin analogue. The label expansion is expected to support further market share gains for NovoLog<sup>®</sup> Mix 70/30 in the US market.

Novo Nordisk has received marketing authorisation from the European Commission for NovoMix<sup>®</sup> 50 and NovoMix<sup>®</sup> 70. For filing of NovoMix<sup>®</sup> 50 in Japan, additional data will be required for approval. Novo

compared to other marketed products.

The phase 2b study with liraglutide was successfully completed in November 2005. The results from the 14-week study showed an improvement of long-term glycaemic control, as measured by haemoglobinA1c (HbA1c), of between 1.5 and 2 percentage points by treatment with liraglutide compared to placebo. Liraglutide was well tolerated and nausea was reported at a level of 5-10%. There were no cases of major or minor hypoglycaemia in spite of the impressive glycaemic control. Phase 3 studies with liraglutide including approximately 3,800 patients are still expected to start in February 2006.

### **Biopharmaceuticals**

In August 2005, the FDA approved the use of NovoSeven<sup>®</sup> in surgical procedures involving haemophilia patients with inhibitors against their existing factor VIII or factor IX treatment. Furthermore, the FDA has also approved the use of NovoSeven<sup>®</sup> in patients with factor VII deficiency, a rare hereditary haemorrhagic disease caused by the diminution or absence of this coagulation factor. Additionally, Novo Nordisk filed in December an application with the FDA for US marketing approval of NovoSeven<sup>®</sup> for treatment of bleeding episodes in patients with acquired haemophilia.

In October, Novo Nordisk filed in the EU for marketing approval of NovoSeven<sup>®</sup> in ICH, based on results of clinical phase 2 trials. Novo Nordisk has received preliminary feedback from EMEA, indicating a preference for receiving additional data. Based on this, and a higher than expected recruitment rate in the ongoing global phase 3 study, Novo Nordisk will withdraw the current file and resubmit an application following the completion of phase 3. The updated application will reflect the less

measured as average spend per employee, increased by 10% to 9,899 Danish kroner. The money spent per employee does not fully reflect investments in training, since on-the-job-training, internal seminars and other similar activities are not included.

## Research and development update

### Diabetes care

Levemir<sup>®</sup> was approved by the US Food and Drug Administration (FDA) in June 2005, and

Nordisk is currently planning the initiation of the necessary additional clinical trials. For the US, Novo Nordisk filed an application in June with the FDA for a marketing authorisation for NovoLog<sup>®</sup> Mix 50/50 and NovoLog<sup>®</sup> Mix 30/70 (the US trade names for NovoMix<sup>®</sup> 50 and NovoMix<sup>®</sup> 70).

At the annual meeting of the European Association for the Study of Diabetes (EASD) in September 2005, Novo Nordisk launched the NovoPen<sup>®</sup> 4 durable pen device for insulin treatment of patients with diabetes. This is the fourth generation of the NovoPen<sup>®</sup> range of durable devices, and NovoPen<sup>®</sup> 4 offers patients a more convenient treatment option,

restrictive inclusion criteria in the phase 3 trial. This trial, now expected to be completed by the end of 2006, is aimed at satisfying the needs of regulatory agencies for approval worldwide outside Japan. A phase 2 clinical study has been initiated in Japan, which is expected to include around 100 patients and to be completed during 2007.

The NovoSeven<sup>®</sup> phase 3 clinical study in trauma outside the US is continuing as planned. The study includes mortality as a primary study outcome and is expected to in-

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clude around 1,500 patients.

In the US, the FDA has asked for additional data related to the feasibility of conducting a NovoSeven® phase 3 clinical study in trauma without a waiver of informed consent.

Therefore, Novo Nordisk has decided to initiate a phase 3 study without a waiver of informed consent, with the same primary endpoint as the non-US trial, in order to provide the required data to the FDA. Novo Nordisk expects this process to take at least one year, but the timeline will ultimately depend on how the FDA interprets preliminary patient enrolment data from the study conducted without a waiver of informed consent.

Novo Nordisk expects to finalise four ongoing phase 2 studies with NovoSeven® within traumatic brain injury, cardiac surgery, spinal surgery and upper gastro-intestinal bleeds, respectively, in the second half of 2006.

In the HRT area, Novo Nordisk expects to file in February 2006 in Europe and the US for marketing approval of an ultra-low-dose version of Activelle® (Activella® in the US).

See also discussions of Novo Nordisk's research and development activities on pp 10 11 and 24 25 and the pipeline on pp 12 13.

### Equity

Total equity was DKK 27,634 million at the end of 2005, equal to 65.9% of total assets, compared to 70.8% at the end of 2004. The lower equity ratio reflects the accelerated completion of the DKK 5 billion share repurchase programme announced in April 2004 as well as unrealised losses on cash flow hedges, deferred as part of net equity for profit and loss recognition in 2006 and 2007.

shares) of current treasury B shares, to DKK 566.4 million. This corresponds to a 5% reduction of the total share capital.

### Treasury shares and share repurchase programme

As per 27 January 2006, Novo Nordisk A/S and its wholly-owned affiliates owned 30,979,219 of its own B shares, corresponding to 8.73% of the total share capital. In 2005, a total of 852,647 B shares were disposed of to employees under the general employee share programme.

During 2005, Novo Nordisk purchased 9,657,118 B shares at a cash value of DKK 3 billion which, combined with the DKK 2 billion worth of B shares repurchased during 2004, completes the share repurchase programme of DKK 5 billion announced in April 2004.

The Board of Directors has approved the initiation of a new share repurchase programme of DKK 6 billion to be repurchased during 2006 2007. The objective is to align Novo Nordisk's capital structure to the expected positive development in free cash flow. The completion of the new programme will be subject to the shareholders' approval at the Annual General Meeting on 8 March 2006 of the proposed reduction of the company's share capital.

The repurchased shares will be kept as treasury shares and the value of the repurchased shares will, in accordance with Novo Nordisk's accounting policies, be written off against equity. A corresponding reduction will be made in number of shares outstanding used in the calculation of Novo Nordisk's financial ratios.

### Corporate governance

months of salary on average per participant. The shares in the bonus pool are locked up for a three-year period before they are transferred to the executives at the expiry of the three-year lock-up period.

Based on an assessment of the economic value generated in 2005 as well as the performance of the R&D portfolio and key sustainability projects, the Board of Directors on 26 January 2006 approved the establishment of a bonus pool for 2005 by allocating a total of 116,013 Novo Nordisk B shares, corresponding to a cash value of DKK 35.5 million. This allocation amounts to seven months of salary on average per participant.

### Share option programme

The grant of share options to approximately 400 senior employees, excluding the members of Executive Management and the Senior Management Board, in accordance with Novo Nordisk's share option programme is subject to the achievement of shareholder value-based targets as determined by the Board of Directors. For 2005, targets were established for operating profit and return on invested capital, respectively, in addition to a number of non-financial targets for the performance of the R&D portfolio and key sustainability projects. These non-financial targets are identical to the targets included in the long-term share-based incentive programme for Executive Management and the Senior Management Board.

As the majority of the non-financial targets and both financial targets for 2005 were achieved, a total of 820,234 share options will be granted at an exercise price of DKK 306 per option. The options can be exercised in the period 31 January 2009 30 January 2014. The value of the share

**Proposed dividend and reduction of share capital**

At the Annual General Meeting on 8 March 2006, the Board of Directors will propose a 25% increase in dividend to DKK 6.00 per share of DKK 2, corresponding to a pay-out ratio of 33.2%, compared to 31.8% for the financial year 2004. No dividend will be paid on the company's holding of treasury B shares.

In order to maintain capital structure flexibility the Board of Directors will also propose a reduction in the B share capital, by cancellation of nominally DKK 35.5 million (17,734,708

**Long-term share-based incentive programme**

As from 2004, Novo Nordisk's Executive Management and the Senior Management Board (26 in total) participate in a performance-based incentive programme where Novo Nordisk B shares are allocated annually to a bonus pool when certain predefined business-related targets have been achieved. The annual maximum allocation of shares to the bonus pool is capped at the equivalent of eight

option programme is estimated to be DKK 47 million, based on the Black-Scholes model. The company's holding of its own shares will cover this commitment.

**Compliance with Sarbanes Oxley requirements**

In 2005, Novo Nordisk completed the process of becoming compliant with the Sarbanes Oxley Act section 404 that requires detailed documentation of how financial reporting processes are designed and operating: the flow of information, and systems and controls sup-

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porting the reporting processes. Novo Nordisk must ensure that there are no material weaknesses in the internal controls which could lead to a material misstatement in the company's financial reporting. Novo Nordisk will include a conclusion on the evaluation of the financial reporting processes and the auditors' evaluation hereof in the so-called Form 20-F filing to the US Securities and Exchange Commission, which is submitted in February 2006. Compliance with these requirements as a foreign registrant on the New York Stock Exchange (NYSE) is only required by the end of 2006 and, hence, Novo Nordisk's compliance with section 404 is achieved one year ahead of requirements.

### Legal issues

As of 26 January 2006, Novo Nordisk Inc, as the majority of hormone therapy product manufacturers in the US, is a defendant in product liability lawsuits related to hormone therapy products. These lawsuits currently involve a total of 37 individuals who allege to have used a Novo Nordisk hormone therapy product. These products (Activella® and Vagifem®) have been sold and marketed in the US since 2000. Until July 2003, the products were sold and marketed exclusively in the US by Pharmacia & Upjohn Company (now Pfizer Inc).

According to information received from Pfizer, an additional 13 individuals currently allege, in relation to similar lawsuits against Pfizer Inc, that they also have used a Novo Nordisk hormone therapy product. Currently, it is expected that the first trial may take place in the third or fourth quarter of 2006; however, Novo Nordisk is not expecting the claims to impact Novo Nordisk's financial outlook.

In September 2005, Novo Nordisk

conference was held on 10 January 2006, at which time the court scheduled the trial for August 2007. The discovery phase will commence in early 2006.

In June 2005, Novo Nordisk filed a patent infringement lawsuit against Caraco Pharmaceutical Laboratories Ltd in response to their Abbreviated New Drug Application (ANDA) for repaglinide, the active ingredient in Prandin®. In their ANDA, Caraco requests approval to sell repaglinide following the 2009 expiration of a US patent relating to repaglinide, and provides Paragraph IV certification under the statutes of the Drug Competition and Patent Term Extension Restoration Act (Hatch Waxman Act), alleging non-infringement and invalidity of a Novo Nordisk patent relating to the fixed combination or simultaneous administration of repaglinide with met-formin, which expires in 2018. The discovery phase is expected to commence in early 2006.

Novo Nordisk Inc is currently a defendant in three separate cases filed in the US alleging that Novo Nordisk and a number of other pharmaceutical companies provided a false Average Wholesale Price for certain drugs covered by Medicaid. These cases have been brought by the State of Alabama, the State of Mississippi and Erie County, New York. Novo Nordisk was recently dismissed from 31 similar cases by counties in the State of New York.

In December 2005, the office of the US Attorney for the Eastern District of New York served Novo Nordisk with a subpoena calling for the production of documents relating to the company's US marketing and promotional practices. The company believes that the investigation is limited to its insulin products. The subpoena indicates that the documents are necessary for the investigation of potential criminal offences relating to healthcare benefit programmes. Novo Nordisk is

For information on contingencies for pending litigation, see the financial statements, note 37 on p 89.

### Outlook 2006

Novo Nordisk expects at least 10% growth in sales measured in local currencies for 2006. This is based on expectations of a strong market for insulin products in general and the continued market penetration of Novo Nordisk's insulin analogue portfolio, combined with expectations of increasing NovoSeven® and Norditropin® SimpleXx® sales. Given the current level of exchange rates versus Danish kroner, the sales growth rate for 2006 measured in Danish kroner is expected to be slightly higher than the growth rate measured in local currencies.

For 2006, operating profit growth measured in local currencies and excluding the impact from non-recurring items is expected to grow by around 10%, reflecting the expected higher spending on sales and marketing activities, combined with an increased number of late-stage clinical development projects. Measured in Danish kroner the growth in operating profit is expected to be slightly more than 10%, reflecting a minor positive currency impact and the absence of non-recurring income in 2006.

Novo Nordisk expects a net financial expense of DKK 350 million in 2006, reflecting:

- a net financial expense of around DKK 150 million (excluding Novo Nordisk's share of profit & loss in associated companies), primarily related to deferred losses from foreign exchange hedging contracts, and
- a negative impact from losses in associated companies of around DKK 200 million, primarily reflecting Novo Nordisk's share of the expected loss in



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filed a patent infringement lawsuit against sanofi-aventis, Aventis Pharmaceuticals Inc, Aventis Pharma Deutschland GmbH, and Aventis Pharma AG alleging that the OptiClik® pen system marketed in the US by Aventis Pharmaceuticals infringes US patent No. 6582408. In the complaint, Novo Nordisk has asked for an injunction and monetary damages that have and will result from sale of the OptiClik® pen system. The lawsuit was filed in the US District Court for the district of Delaware. An initial

cooperating with the US Attorney in this investigation.

ZymoGenetics, Inc.

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### Invoicing currency

Annual impact on Novo Nordisk's operating profit in 2006 of a 5% movement in currency

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USD	DKK 350 million
JPY	DKK 150 million
GBP	DKK 90 million
USD-related*)	DKK 100 million

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\*) USD-related currencies include CNY, CAD, ARS, BRL, MXN, CLP, SGD, TWD and INR

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Novo Nordisk expects the effective tax rate to be 30%, 1 percentage point higher than the tax rate realised for 2005. As previously stated, the tax rate for 2005 was positively impacted by the tax-exempt status of non-recurring gains related to associated companies as well as the positive impact from re-evaluation of deferred tax liabilities.

Novo Nordisk plans capital expenditures of around DKK 3 billion, primarily related to the construction of additional purification and filling capacity for insulin products. Depreciation, amortisation and impairment losses are expected to be around DKK 2.1 billion and the free cash flow to be around DKK 4 billion.

All of the above expectations are provided that currency exchange rates remain at the current level for 2006. All other things being equal, movements in key invoicing currencies will impact Novo Nordisk's operating profit in 2006 as illustrated on p 50.

With the results achieved and the investments made in 2005, the Board of Directors and Executive Management are confident that this provides a strong platform for 2006, which will enable Novo Nordisk to deliver solid financial performance and to continue to invest in the future.

### Forward-looking statement

The above sections contain forward-looking statements as the term is defined in the US Private Securities Litigation Reform Act of 1995. Forward-looking statements provide current expectations or forecasts of events such as new product introductions, product approvals and financial performance.

Such forward-looking statements are subject to risks, uncertainties and inaccurate assumptions. This may cause actual results to differ materially from expectations. Factors that may affect future results include interest rate and currency exchange rate fluctuations, delay or failure of development projects, production problems, unexpected contract breaches or terminations, government-mandated or market-driven price decreases for Novo Nordisk's products, introduction of competing products, Novo Nordisk's ability to successfully market both new and existing products, exposure to product liability and other lawsuits, changes in reimbursement rules and governmental laws and related interpretation thereof, and unexpected growth in costs and expenses.

Risks and uncertainties are further described in reports filed by Novo Nordisk with the US Securities and Exchange Commission (SEC) including the company's Form 20-F, which was filed on 21 February 2005. Please also refer to pp 56-57. Novo Nordisk is under no duty to update any of the forward-looking statements or to conform such statements to actual results, unless required by law.

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<b>Sales</b>	2001	2002	2003	2004	<b>2005</b>	2004 2005	2004	2005
	DKK million	DKK million	DKK million	DKK million	DKK million	Change	EUR million	EUR million
<i>Diabetes care:</i>								
Insulin analogues	459	1,187	2,553	4,507	<b>7,298</b>	62%	606	979
Human insulin and insulin-related products	14,533	14,651	14,492	14,383	<b>15,006</b>	4%	1,933	2,015
Oral antidiabetic products (OAD)	1,392	1,620	1,430	1,643	<b>1,708</b>	4%	221	229
<b>Diabetes care total</b>	<b>16,384</b>	<b>17,458</b>	<b>18,475</b>	<b>20,533</b>	<b>24,012</b>	<b>17%</b>	<b>2,760</b>	<b>3,223</b>
<i>Biopharmaceuticals:</i>								
Haemostasis management (NovoSeven®)	3,071	3,593	3,843	4,359	<b>5,064</b>	16%	586	680
Growth hormone therapy	2,055	2,061	2,133	2,317	<b>2,781</b>	20%	311	373
Hormone replacement therapy	1,426	1,333	1,322	1,488	<b>1,565</b>	5%	200	210
Other products	449	421	385	334	<b>338</b>	1%	45	45
<b>Biopharmaceuticals total</b>	<b>7,001</b>	<b>7,408</b>	<b>7,683</b>	<b>8,498</b>	<b>9,748</b>	<b>15%</b>	<b>1,142</b>	<b>1,308</b>
<b>Total sales by segments</b>	<b>23,385</b>	<b>24,866</b>	<b>26,158</b>	<b>29,031</b>	<b>33,760</b>	<b>16%</b>	<b>3,902</b>	<b>4,531</b>
Europe	10,562	10,889	11,697	12,411	<b>13,447</b>	8%	1,668	1,805
North America	5,167	5,786	6,219	7,478	<b>9,532</b>	27%	1,005	1,279
International Operations	3,395	4,099	4,227	4,844	<b>6,070</b>	25%	651	815
Japan & Oceania	4,261	4,092	4,015	4,298	<b>4,711</b>	10%	578	632
<b>Total sales by geographical areas</b>	<b>23,385</b>	<b>24,866</b>	<b>26,158</b>	<b>29,031</b>	<b>33,760</b>	<b>16%</b>	<b>3,902</b>	<b>4,531</b>
Price and volume/mix	17%	11%	15%	15%	<b>15%</b>			
Currency	(3%)	(5%)	(10%)	(4%)	<b>1%</b>			
<b>Total growth</b>	<b>14%</b>	<b>6%</b>	<b>5%</b>	<b>11%</b>	<b>16%</b>			

**Key figures**

	DKK million	DKK million	DKK million	DKK million	DKK million	Change	EUR million	EUR million
Operating profit	5,410	5,927	6,422	6,980	<b>8,088</b>	16%	938	1,085
Net financials	285	401	954	477	<b>146</b>	(69%)	64	20
Profit before income taxes	5,695	6,328	7,376	7,457	<b>8,234</b>	10%	1,002	1,105
Net profit	3,620	4,116	4,833	5,013	<b>5,864</b>	17%	674	787

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Equity	19,700	22,477	24,776	26,504	<b>27,634</b>	4%	3,563	3,704
Total assets	28,662	31,612	34,564	37,433	<b>41,960</b>	12%	5,033	5,624
Capital expenditure (net)	3,829	3,893	2,273	2,999	<b>3,665</b>	22%	403	492
Free cash flow	186	497	3,846	4,278	<b>4,833</b>	13%	575	649

Per share/ADR of DKK 2

	DKK	DKK	DKK	DKK	DKK	Change	EUR	EUR
Earnings per share	10.47	11.87	14.17	14.89	<b>17.89</b>	20%	2.00	2.41
Earnings per share, diluted	10.45	11.85	14.15	14.83	<b>17.83</b>	20%	1.99	2.40
Proposed dividend	3.35	3.60	4.40	4.80	<b>6.00</b>	25%	0.65	0.81
Quoted price at year-end for B shares	342	205	241	299	<b>355</b>	19%	40	47.73

Ratios

Long-term financial target in %

	%	%	%	%	%	Previous	New
Growth in operating profit	15.0	9.6	8.4	8.7	<b>15.9</b>	15	15
Growth in operating profit, three-year average	22.7	19.1	11.0	8.9	<b>11.0</b>		
Operating profit margin	23.1	23.8	24.6	24.0	<b>24.0</b>	25	25
Return on invested capital (ROIC)	23.2	21.1	20.4	21.5	<b>24.7</b>	25	30
Cash to earnings	5.1	12.1	79.6	85.3	<b>82.4</b>		
Cash to earnings, three-year average	56.2	34.4	32.3	59.0	<b>82.4</b>	60	70
Net profit margin	15.5	16.6	18.5	17.3	<b>17.4</b>		
Equity ratio	68.7	71.1	71.7	70.8	<b>65.9</b>		

Key figures and per share data are translated into EUR as supplementary information the translation is based on the currency rate at 31 December 2005 (EUR 1 = DKK 7.4605).

[Back to Contents](#)**non-financial highlights**

<b>Economics</b>			2001	2002	2003	2004	2005
<b>R&amp;D</b>	Ratio of R&D expenditure to tangible investments		1:1	1:1	1.8:1	1.5:1	<b>1.3:1</b>
	R&D as share of sales	%	16.6	15.9	15.5	15.0	<b>15.1</b>
<b>Investments</b>	Total tangible investments	DKK million	3,829	3,893	2,273	2,999	<b>4,009</b>
<b>Remuneration</b>	Remuneration as share of cash value added	%		34	34	34	<b>34</b>
<b>Employment</b>	Employment impact worldwide (direct and indirect)	Number of jobs	56,200	62,400	64,900	69,500	<b>74,200</b>
<b>Corporate tax</b>	Total corporate tax as share of sales	%	8.9	8.9	9.7	8.4	<b>7.0</b>
<b>Exports</b>	Novo Nordisk exports as share of Danish exports	%	4.1	4.4	4.4	3.9	<b>4.8</b>
<b>Environment</b>							
<b>Resources</b>	Water consumption	1,000m <sup>3</sup>	1,790	2,044	2,621	2,756	<b>3,014</b>
	Energy consumption	1,000GJ	1,838	2,083	2,299	2,408	<b>2,591</b>
	Raw materials and packaging materials	1,000 tons	88	93	110	111	<b>150</b>
<b>Waste water</b>	COD	Tons	830	971	1,187	1,448	<b>1,303</b>
	Nitrogen	Tons	86	111	122	121	<b>126</b>
	Phosphorus	Tons	15	17	21	21	<b>22</b>
<b>Waste</b>	Total waste	Tons	14,866	12,935	21,356	21,855	<b>23,776</b>
	Recycling percentage	%	50	41	41	40	<b>33</b>
<b>Emissions to air</b>	CO <sub>2</sub>	1,000 tons	174	199	206	214	<b>226</b>
	Organic solvents	Tons	75	149	137	115	<b>124</b>
<b>EPI</b>	EPI for water		102	116	110	107	<b>108</b>
	EPI for energy		114	115	124	108	<b>109</b>
<b>Compliance</b>	Breaches of regulatory limit values	Number	68	30	105	74 <sup>*)</sup>	<b>174</b>
	Accidental releases	Number	5	12	20	29 <sup>*)</sup>	<b>83</b>

## Social

<b>Living our values</b>	Average of respondents' answers as to whether social and environmental issues are important for the future of the company		4.3	4.1	4.0	4.2	<b>4.2</b>
	Average of respondents' answers as to whether their manager's behaviour is consistent with Novo Nordisk's values		3.8	3.7	3.8	4.0	<b>4.0</b>
	Fulfilment of action points planned arising from facilitations of the Novo Nordisk Way of Management and values	%	90	95	99	96	<b>100</b>
<b>Access to health</b>	LDCs where Novo Nordisk operates	Number		30	30	35	<b>35</b>
	LDCs where Novo Nordisk sells insulin at or below the policy price	Number		19	16	33	<b>32</b>
<b>People</b>	Employees (total)	Number	16,693	18,372	19,241	20,725	<b>22,460</b>
	Rate of absence	%	3.8	2.7	3.1	3.2	<b>3.2</b>
	Rate of employee turnover	%	7.7	6.4	7.1	7.3	<b>8.0</b>
	Average of respondents' answers as to whether their work gives them an opportunity to use and develop their competences/skills		3.8	3.7	3.7	3.8	<b>3.8</b>
	Average of respondents' answers as to whether people from diverse backgrounds have equal opportunities		3.9	3.8	3.7	3.8	<b>3.9</b>
<b>Health &amp; Safety</b>	Frequency of occupational injuries per million working hours		8.2	8.9	5.4	5.6	<b>7.3</b>
	Fatalities	Number			0	1	<b>0</b>
<b>Training costs</b>	Annual training costs per employee	DKK	8,201	8,189	7,518	8,992	<b>9,899</b>
<b>Patent families</b>	Active patent families to date	Number	590	654	701	778	<b>812</b>
	New patent families (first filing)	Number	107	114	140	145	<b>130</b>
<b>Animals</b>	Animals purchased	Number	55,876	48,128	42,869	47,311	<b>57,905</b>
	Test types removed from external and internal specification	%	18	64	73	82	<b>82</b>

\*) Was reported as 76 and 30. Reporting error now corrected.

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## Corporate governance

Stakeholder demands for evidence of good corporate governance evolve, and so do the codes, standards and practices according to which businesses are managed. In 2005, Novo Nordisk was among the first companies outside the US to be in full compliance with the requirements of documenting and reporting performance required by the American Sarbanes Oxley Act.

Corporate governance refers to the system by which Novo Nordisk is directed and controlled, the goals towards which the company is managed and the major principles and frameworks which regulate the interaction between the Board of Directors, Executive Management, the shareholders and the stakeholders.

### Framework

#### *Codes and regulations*

As an international company listed on the stock exchanges in Copenhagen, New York and London, Novo Nordisk is in compliance with Danish, US and UK securities laws, with the Danish Recommendations on Corporate Governance, and is in general in compliance with corporate governance standards on the New York and London Stock Exchanges.

Compliance is supported by company standards and a set of management tools that drive and monitor performance.

#### *Novo Nordisk Way of Management*

The Novo Nordisk Way of Management forms the values-based governance framework for the company (see p 7). From vision to policies, it explicates how values are put into action. It is sufficiently specific to guide decision-making, yet at the same time allows for the adoption of

at the Annual General Meeting, query them.

Integrity and values are the spine of Novo Nordisk's corporate culture and must never be compromised. These are essential elements of the control environment, affecting the design, administration and monitoring of other internal control components. This is the message conveyed to employees, as laid down in the Novo Nordisk Way of Management.

#### *Risk management*

Executive Management is responsible for the risk management process, including risk identification, assessment of likelihood and potential impact and initiation of mitigating actions. Major risks are systematically identified and regularly reported to Executive Management and the Board of Directors (see pp 56-57).

#### *Internal control*

In 2005, one year ahead of requirements, Novo Nordisk completed the process of becoming compliant with the Sarbanes Oxley Act section 404 that requires detailed documentation of how financial reporting processes are designed and operating. Novo Nordisk must ensure that there are no material weaknesses in the internal controls which could lead to a material misstatement in its financial reporting. The company's conclusion and the auditors' evaluation of these processes are included in its Form 20-F filing to the US Securities and Exchange Commission.

### Governance structure

#### *Ownership and shares*

Novo Nordisk's share capital is divided between A shares and B shares. All A shares are held by Novo A/S, a private limited liability Danish company, fully owned by the Novo Nordisk Foundation which is a private self-governing institution (see p 111). The B shares are traded on the stock

the exception of agenda items reserved for the Board's internal discussion, executives attend and may speak, without voting rights, at board meetings, ensuring that the Board is sufficiently informed of the company's operations. The Executive Management also conveys information on major shareholders' views.

#### *Board of Directors*

On behalf of shareholders, the Board of Directors actively contributes to developing the company and supervises Executive Management in its decisions and operations. Hence, the aim is to compose a Board consisting of individuals whose particular knowledge and experience enables the Board as a whole to attend to the interests of shareholders, employees and other stakeholders. New board members receive an induction programme equalling two full days during their first year on the board and participate subsequently in educational activities on an as needed basis.

The Novo Nordisk Board of Directors currently has 11 members, eight of whom are elected by shareholders. Five of the shareholder-elected Board members are considered independent, as defined by the Danish Corporate Governance Recommendations, while three are former executives in Novo Nordisk and related to the majority shareholder through board or executive positions. According to Danish law another three Board members are elected by Danish employees among themselves serving for a four year term, with the same rights, duties and responsibilities as shareholder-elected directors. See the profiles of the current Board members on pp 108-109.

The Board of Directors conducts an annual self-assessment, based on written questionnaires, to improve performance and the cooperation with Executive Management. This process is directed by the chairmanship and is

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new, supporting guidelines, policies or practices in response to evolving societal expectations or business developments.

Novo Nordisk holds itself accountable to shareholders and stakeholders for its financial, social and environmental performance. The accuracy, completeness and reliability of the information provided in the company's reporting is verified through internal controls, assurance and independent audits. Reporting is the tool through which shareholders can assess the actions of the board of directors, and can,

exchanges in Copenhagen and London and in the form of American Depositary Receipts on the New York Stock Exchange. Each A share carries 10 votes, whereas each B share carries 1 vote (see p 111).

### *Management structure*

Novo Nordisk has a two-tier board structure with a Board of Directors and an Executive Management. The two bodies are separate, and no one serves as a member of both. With

facilitated by an external consultant. The process evaluates the degree to which each director participates actively in Board meetings. This includes an assessment of whether the director is inspirational and contributes with independent judgement in key areas such as organisation, management, financial and operational strategy. Further, it is assessed whether the environment supports open discussion at Board meetings. The Board continu-



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## corporate governance

ously assesses, formally once a year, the performance of each executive, and the chairman conducts an annual interview with each.

### *Executive Management*

Executive Management is responsible for the company's daily operations. It consists of the president and CEO, and five other executives. Its responsibilities include organisation of the company and allocation of resources, strategies and policies, setting direction and ensuring timely information to the Board and the stakeholders of Novo Nordisk. Executive Management meets at least once a month.

The Board appoints Executive Management and determines their remuneration. The chairmanship reviews other executives' performance. As part of the Organisational Audit (see p 7) the chairmanship identifies successors to executives and presents candidates' names to the Board for approval.

### *Remuneration policy*

Novo Nordisk Annual Report 2005  
The Remuneration policy is designed

to attract, retain and motivate board members and executives. Board members receive a fixed amount, the Chairmanship and the Audit Committee members receive a multiplier thereof (see p 83). Board members are not offered stock options, warrants or participation in other incentive schemes.

Executive remuneration must be competitive and is evaluated against Danish and international benchmarks. It consists of a base salary, cash bonus, pensions, non-monetary benefits and a long-term incentive, which is designed to align the interests of the executive with those of the shareholders (see p 83).

### **Assurance**

Compliance with codes and regulations as well as follow-up methodology specified by the Novo Nordisk Way of Management is supported by a range of internal procedures such as the Organisational Audit, Facilitation, Quality Management system, assurance and internal and external audits. The internal procedures are monitored, and potential deficiencies are reported upstream, with serious matters reported to Executive Management and the Audit Committee or the Board of Directors.

### *External audit*

The annual report and the internal controls over financial reporting processes are audited by an external auditor elected by the Annual General Meeting. The auditor acts in the interest of the shareholders, as well as the public (see pp 106-107).

The auditor reports any significant findings regarding accounting matters and any significant internal control deficiencies via the Audit Committee to the Board and in the auditor's long-form report.

### *Internal audit*

The internal audit function provides independent and objective assurance, primarily within internal control and governance. To ensure that the function works independently of management, its charter, audit plan and budget are approved by the Audit Committee. The head of internal audit is appointed by and reports to the Audit Committee.

### *Facilitation*

Facilitations (see p 7) are a method to evaluate

how well the practices and understanding of the Novo Nordisk Way of Management are embedded in the organisation. The findings and identified corrective actions are part of the documentation that the CEO presents to the Board of Directors.

### *Quality audit*

The commitment to quality is outlined in the Novo Nordisk Way of Management. Quality is defined as meeting the expectations and needs of customers and society. The Quality Management system, including audits, ensures continuous improvements (see p 32).

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## Risk management

In the rapidly changing business environment of the pharma industry, having a clear view on risks and timely mitigations allows Novo Nordisk to better allocate resources to target future growth opportunities.

With increased pressure for innovations in research and development, it is essential for management to nurture an entrepreneurial spirit that encourages calculated risk-taking, and at the same time proactively mitigates potential risks. Monitoring risks requires a 360 degree perspective: risks may not only occur in relation to business operations and external factors such as regulatory demands, compliance requirements and product safety. In a globalised business environment, reputational risks need to be considered too. In 2004, Novo Nordisk established a governance structure for risk management to ensure that the company seeks to respond in a timely and appropriate way to potential risks.

In business as in personal life there will be risks to be faced, to take and to avert. For people at Novo Nordisk, understanding risks and managing them appropriately will enhance their ability to make better decisions, deliver on objectives and subsequently improve performance. If, on the other hand, they fail to

identify and manage business risks, this may result in considerable expenditure and eroded shareholder confidence.

For Novo Nordisk, risk management is about identifying and reducing risk to an acceptable level. Risks are defined as events or developments which could reduce our ability to meet our overall objectives, as defined by the company's vision and reflected in business plans. The company's risk policy spells out that we will manage risks to enable continued growth of our business and to protect our people, assets, earnings and reputation against material loss. Hence, risk management considers both financial and non-financial risks, and key risks are reported through one integrated and systematic process.

Novo Nordisk's strategic planning process forms part of the risk management process. Once a year, a strategic plan with an in-depth identification and evaluation of long-term strategic growth opportunities is performed across the organisation. This also creates the basis for formulating Critical Success Factors and setting targets for the Key Performance Indicators which are part of the company's Balanced Scorecards. Subsequently, risk factors and mitigations are identified and these are factored into individual business plans for all units in Novo Nordisk. The assessment of key risks will build on Novo Nordisk's existing

organisational assurance activities, such as Organisational Audit, Facilitation, quality audit and Group Internal Audit.

As of 2004, Executive Management established a dedicated Risk Management Group of senior executives, representing all key business activities and selected supporting functions. Chaired by the chief financial officer, it reports to Executive Management and the Board of Directors. It sets the strategic direction and challenges for risk management, and analyses the risk and control information generated by the individual business areas. This process helps reduce blind spots and consider potential cross-functional impacts. In quarterly reports to Executive Management and the Board of Directors, risks are assessed and quantified in terms of potential financial impact and reputational damage. For each risk the potential impact is specified, as are mitigating actions.

Risk Office is the secretariat of the Risk Management Group, and drives and consolidates risk reporting from discovery and development, through manufacturing and logistics, to marketing and sales. In addition, risks related to support functions such as quality, regulatory, business development, finance, legal & IT and HR are included. This is done in consultation with relevant Novo Nordisk committees, boards and management groups.

### Integrated risk management process

### Risk management process

Novo Nordisk's risk management process identifies and assesses material risks associated with the company's overall business objectives. The risk management framework aims:

- to provide timely and accurate reporting of risks to Executive

Management

to maintain and improve stakeholders' confidence in the ability to achieve short- and long-term goals, thereby maintaining and improving the company's reputation in the marketplace

to utilise an effective and integrated risk management process while maintaining business flexibility

to identify and manage a comprehensive risk portfolio aligned to the vision and corporate Balanced Scorecard to monitor and mitigate risks to maximise business benefits.

Novo Nordisk's risk management is broadly divided into two major components: strategic risk management and operational risk management.

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## risk management

### Assessing risks

In the assessment of risks two factors are considered: the likelihood of the event and its eventual impact on the business. Impacts are quantified and assessed in terms of potential financial loss and reputational damage. The matrix below shows how Novo Nordisk assesses its key risks.

The risks are assessed at a gross level and a net level. The gross level is the assessment of the risk with the assumption that no mitigating actions have been implemented. The net risk level is the residual risk when taking into account the mitigating actions and their anticipated effect. Below are examples of key risks.

### Pressure on insulin prices

Rising healthcare costs are putting pressure on public healthcare. This, in turn, threatens to undermine the profitability of the pharmaceutical industry and discourage investments in research into therapeutic areas where there are limited prospects for commercialisation.

For Novo Nordisk this situation would imply that the company cannot sustain its insulin prices at their current level, as governmental price regulation would be likely to result in lower prices for insulin. While the company fully recognises the need to resolve the issues, it also proactively defends the value of its products. Backed by clinical and health economic studies of the benefits of a high-quality insulin therapy regimen, Novo Nordisk is closely monitoring initiatives from regulatory bodies and advocates moving diabetes higher up the healthcare agenda for the benefit of the 194 million people in the world with diabetes and

### Current risk profile examples

To the right are Novo Nordisk's risk management structure and reporting

the estimated 333 million people at risk of developing diabetes by 2025, as projected by the International Diabetes Federation.

### Product recall

In pharmaceutical production, quality is paramount, and any incidents where patients' well-being is at risk would go against the Novo Nordisk Way of Management. It would also imply major reputational risks as well as risks of costly compensation payments in the case of product liability claims.

While gross risk is very high, this is an example of how mitigating actions can significantly reduce the net risk to the company. Novo Nordisk has a corporate quality system in place, with quality audits, quality improvement plans and a number of management reviews.

### Insufficient production capacity

The majority of Novo Nordisk's manufacturing capacity is concentrated at a few sites in Denmark. This in itself entails a relatively low risk profile, yet there is always a risk of failure or breakdown in any of the company's vital production facilities. This would entail physical damage and potential loss of life, and could in the longer term also affect the supply chain. In order to mitigate this risk, procedures and instructions are in place to minimise the risk of fire, each site is inspected annually and there are some back-up facilities and minimum safety inventories in place, should an incident happen. Moreover, to reduce losses, buildings are designed to prevent any fires from spreading by measures such as fire separation, fire alarms and fire-extinguishing systems.

### Adherence to ethical marketing practices

Adherence to ethical marketing practices in the pharmaceutical industry is particularly critical. Companies are expected to provide evidence that they have policies in place and that any misconduct is brought to light and rectified. Any major breaches might jeopardise the company's reputation and could also mean blacklisting by institutional investors, regulatory bodies, IGOs such as the UN or other influential stakeholders.

In December 2005, the office of the US Attorney for the Eastern District of New York served Novo Nordisk with a subpoena calling for the production of documents relating to the company's US marketing and promotional practices. The company believes that the investigation is limited to its insulin products. The subpoena indicates that the documents are necessary for the investigation of potential criminal offences relating to healthcare benefit programmes. Novo Nordisk is cooperating fully with the US Attorney in this investigation.

In 2005, Novo Nordisk implemented a global business ethics policy, supported by standard operating procedures and training for everyone affected. Business ethics practices will be audited by Group Internal Audit and will also be addressed in the company's facilitation process.

In addition, affiliates' ethics and compliance policies, some of which have been in place for many years, supplement and enhance the global policy in accordance with local laws and requirements.

lines. The lean organisational structure with clear reporting lines to the Executive Management team makes it relatively easy for senior management to oversee risks reported through the line and also to ensure that the risk reporting addresses any event which might have an impact elsewhere in the organisation.

Examples of key risks for illustrative purposes:

[Back to Contents](#)**consolidated income statement**

DKK million	Note	2005	2004	2003
Sales	4, 5	<b>33,760</b>	29,031	26,158
Cost of goods sold	6, 7	<b>9,177</b>	8,050	7,409
<b>Gross profit</b>		<b>24,583</b>	20,981	18,749
Sales and distribution costs	6, 7	<b>9,691</b>	8,280	7,451
Research and development costs	6, 7	<b>5,085</b>	4,352	4,055
Administrative expenses	6, 7, 8	<b>2,122</b>	1,944	1,857
Licence fees and other operating income (net)	9	<b>403</b>	575	1,036
<b>Operating profit</b>		<b>8,088</b>	6,980	6,422
Share of profit/(loss) in associated companies	7, 16	<b>319</b>	(117)	(59)
Financial income	10	<b>498</b>	898	1,482
Financial expenses	11	<b>671</b>	304	469
<b>Profit before income taxes</b>		<b>8,234</b>	7,457	7,376
Income taxes	12	<b>2,370</b>	2,444	2,543
<b>Net profit</b>		<b>5,864</b>	5,013	4,833
Basic earnings per share (DKK)	13	<b>17.89</b>	14.89	14.17
Diluted earnings per share (DKK)	13	<b>17.83</b>	14.83	14.15

[Back to Contents](#)**consolidated balance sheet**

DKK million	Note	31 Dec 2005	31 Dec 2004
<b>Assets</b>			
Intangible assets	14	485	314
Property, plant and equipment	15	19,941	17,559
Investments in associated companies	16	926	883
Deferred income tax assets	23	879	769
Other financial assets	17	169	159
<b>Total long-term assets</b>		<b>22,400</b>	19,684
Inventories	18	7,782	7,163
Trade receivables	19	4,794	4,062
Tax receivables		504	710
Other receivables	20	1,455	1,040
Marketable securities and financial derivatives	17	1,722	1,341
Cash at bank and in hand	30	3,303	3,433
<b>Total current assets</b>		<b>19,560</b>	17,749
<b>Total assets</b>		<b>41,960</b>	37,433
<b>Equity and liabilities</b>			
Share capital	21	709	709
Treasury shares		(61)	(45)
Share premium account			2,565
Retained earnings		26,962	22,671
Other comprehensive income		24	604
<b>Total equity</b>		<b>27,634</b>	26,504
Long-term debt	22	1,248	1,188
Deferred income tax liabilities	23	1,846	1,853
Provision for pensions	24	316	250
Other provisions	25	335	358

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Total long-term liabilities		<b>3,745</b>	3,649
<hr/>			
Short-term debt and financial derivatives	26	<b>1,444</b>	507
Trade payables		<b>1,500</b>	1,061
Tax payables		<b>676</b>	631
Other liabilities	27	<b>4,577</b>	3,721
Other provisions	25	<b>2,384</b>	1,360
<hr/>			
Total current liabilities		<b>10,581</b>	7,280
<hr/>			
<b>Total liabilities</b>		<b>14,326</b>	10,929
<hr/>			
<b>Total equity and liabilities</b>		<b>41,960</b>	37,433
<hr/>			



[Back to Contents](#)**consolidated cash flow statement and financial resources**

DKK million	Note	2005	2004	2003
<b>Net profit</b>		<b>5,864</b>	5,013	4,833
Reversals with no effect on cash flow:				
Income taxes		<b>2,370</b>	2,444	2,543
Depreciation, amortisation and impairment losses		<b>1,930</b>	1,892	1,581
Interest income and interest expenses		<b>44</b>	(128)	(101)
Other reversals with no effect on cash flow	28	<b>1,109</b>	1,018	365
Income taxes paid		<b>(2,138)</b>	(2,866)	(1,804)
Interest received and interest paid (net)		<b>(73)</b>	109	67
<b>Cash flow before change in working capital</b>		<b>9,106</b>	7,482	7,484
Change in working capital:				
(Increase)/decrease in trade receivables and other receivables		<b>(1,139)</b>	211	(721)
(Increase)/decrease in inventories		<b>(618)</b>	(623)	(571)
Increase/(decrease) in trade payables and other liabilities		<b>1,363</b>	519	(43)
<b>Cash flow from operating activities</b>		<b>8,712</b>	7,589	6,149
Investments:				
Acquisition of subsidiaries and business units	29	<b>(350)</b>		10
Sale of intangible assets and long-term financial assets		<b>400</b>		
Purchase of intangible assets and long-term financial assets		<b>(264)</b>	(312)	(40)
Sale of property, plant and equipment		<b>234</b>	140	185
Purchase of property, plant and equipment		<b>(3,899)</b>	(3,139)	(2,458)
Net change in marketable securities (maturity exceeding three months)		<b>(1,032)</b>	1,310	(1,516)
<b>Cash flow from investing activities</b>		<b>(4,911)</b>	(2,001)	(3,819)
Financing:				
New long-term debt			505	476
Repayment of long-term debt		<b>(29)</b>	(574)	(23)
Purchase of treasury shares		<b>(3,018)</b>	(1,982)	(1,619)
Sale of treasury shares		<b>206</b>	87	15
Dividends paid		<b>(1,594)</b>	(1,488)	(1,243)
<b>Cash flow from financing activities</b>		<b>(4,435)</b>	(3,452)	(2,394)

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<b>Net cash flow</b>		<b>(634)</b>	2,136	(64)
Unrealised gain/(loss) on exchange rates and marketable securities included in cash and cash equivalents		<b>154</b>	(14)	(14)
<b>Net change in cash and cash equivalents</b>		<b>(480)</b>	2,122	(78)
Cash and cash equivalents at the beginning of the year		<b>2,963</b>	841	919
<b>Cash and cash equivalents at the end of the year</b>	30	<b>2,483</b>	2,963	841
Bonds with original term to maturity exceeding three months	17	<b>1,502</b>	508	1,810
Undrawn committed credit facilities	26	<b>7,461</b>	6,694	8,701
<b>Financial resources at the end of the year</b>		<b>11,446</b>	10,165	11,352
Cash flow from operating activities		<b>8,712</b>	7,589	6,149
+ Cash flow from investing activities		<b>(4,911)</b>	(2,001)	(3,819)
Net change in marketable securities (maturity exceeding three months)		<b>(1,032)</b>	1,310	(1,516)
<b>Free cash flow</b>		<b>4,833</b>	4,278	3,846

[Back to Contents](#)**consolidated statement of changes in equity**

	Share capital	Treasury shares	Share premium account <sup>*)</sup>	Retained earnings	Other comprehensive income			Total
					Exchange rate adjustments	Deferred gain/loss on cash flow hedges	Other adjustments	
DKK million								
<b>2005</b>								
Balance at the beginning of the year	709	(45)	2,565	22,671	(40)	461	183	<b>26,504</b>
Exchange rate adjustment of investments in subsidiaries					182			<b>182</b>
Deferred (gain)/loss on cash flow hedges at the beginning of the year recognised in the Income statement for the year						(461)		<b>(461)</b>
Deferred gain/(loss) on cash flow hedges at the end of the year						(345)		<b>(345)</b>
Other adjustments				29			44	<b>73</b>
Net income recognised directly in equity for the year				29	182	(806)	44	<b>(551)</b>
Net profit for the year				5,864				<b>5,864</b>
Total income for the year				5,893	182	(806)	44	<b>5,313</b>
Cost of share-based payment				223				<b>223</b>
Purchase of treasury shares		(19)		(2,999)				<b>(3,018)</b>
Sale of treasury shares		3		203				<b>206</b>
Transfer of Share premium account to Retained earnings			(2,565)	2,565				
Dividends				(1,594)				<b>(1,594)</b>
Balance at the end of the year	709	(61)		26,962	142	(345)	227	<b>27,634</b>

At the end of the year proposed dividends of DKK 1,945 million are included in Retained earnings. No dividend is declared on treasury shares.

\*) In accordance with changes in the Danish Companies Act the Share premium account is transferred to Retained earnings.

<b>2004</b>								
Balance at the beginning of the year	709	(33)	2,565	20,925	(79)	513	176	24,776
Exchange rate adjustment of investments in subsidiaries					39			39
Deferred (gain)/loss on cash flow hedges at the beginning of the year recognised in the Income statement for the year						(513)		(513)

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Deferred gain/(loss) on cash flow hedges at the end of the year						461			461
Other adjustments							7		7
Net income recognised directly in equity for the year					39	(52)		7	(6)
Net profit for the year				5,013					5,013
Total income for the year				5,013	39	(52)		7	5,007
Cost of share-based payment				104					104
Purchase of treasury shares	(13)			(1,969)					(1,982)
Sale of treasury shares	1			86					87
Dividends				(1,488)					(1,488)
Balance at the end of the year	709	(45)	2,565	22,671	(40)	461	183		26,504

At the end of the year proposed dividends of DKK 1,594 million are included in Retained earnings. No dividend is declared on treasury shares.

<b>2003</b>									
Balance at the beginning of the year	709	(19)	2,565	18,849	(85)	391	67		22,477
Exchange rate adjustment of investments in subsidiaries					6				6
Deferred (gain)/loss on cash flow hedges at the beginning of the year recognised in the Income statement for the year						(391)			(391)
Deferred gain/(loss) on cash flow hedges at the end of the year						513			513
Other adjustments							109		109
Net income recognised directly in equity for the year					6	122		109	237
Net profit for the year				4,833					4,833
Total income for the year				4,833	6	122	109		5,070
Cost of share-based payment				76					76
Purchase of treasury shares	(14)			(1,605)					(1,619)
Sale of treasury shares				15					15
Dividends				(1,243)					(1,243)
Balance at the end of the year	709	(33)	2,565	20,925	(79)	513	176		24,776

At the end of the year proposed dividends of DKK 1,488 million are included in Retained earnings. No dividend is declared on treasury shares.

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## notes accounting policies

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### 1 Summary of significant accounting policies

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The Consolidated financial statements are prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU. The Consolidated financial statements are prepared in accordance with the historical cost convention, as modified by the revaluation of available-for-sale financial assets, financial assets and financial liabilities (including derivative financial instruments) at fair value through profit or loss.

#### Effects of new accounting pronouncements

In 2005 Novo Nordisk adopted all of the new and revised standards and interpretations that are relevant to Novo Nordisk and effective for accounting periods beginning on 1 January 2005.

In 2005 the following standards and interpretations were implemented in accordance with the effective date 1 January 2005

IFRS 5 Non-current Assets Held for Sale and Discontinued Operations

Amendment to IAS 39 Financial Instruments: Recognition and Measurement Transition and Initial Recognition of Financial Assets and Financial Liabilities

The implementation of these standards and interpretations did not result in any significant changes to amounts reported for 2005 or prior periods.

The following standards and interpretations have been implemented before the effective date 1 January 2006

Amendment to IAS 19 Employee Benefits

Amendment to IAS 39 Financial Instruments: Recognition and Measurement Cash Flow Hedge Accounting of Forecast Intragroup Transactions

Amendment to IAS 39 Financial Instruments: Recognition and Measurement The Fair Value Option

IFRIC 4 Determining Whether an Arrangement Contains a Lease

The implementation of the amendment to IAS 19 Employee Benefits has resulted in increased disclosure regarding the Group's defined benefit plans (see note 24). The implementation of the amendments to IAS 39 and IFRIC 4 did not have any significant effect on the financial statements of Novo Nordisk.

At the end of 2005, the following standards were issued with effective date 1 January 2006 and 1 January 2007, which have not yet been implemented:

Amendment to IAS 21 The Effects of Changes in Foreign Exchange Rates

IFRS 7 Financial Instruments: Disclosures

Amendment to IAS 1 Presentation of Financial Statements Capital Disclosures

The adoption of these standards is not expected to have any significant effect on the Financial statements of Novo Nordisk.

#### Reclassification

In line with international development, the market value of financial instruments has been reclassified from Other receivables to Marketable securities and financial derivatives. Comparative figures have been adjusted accordingly. The reclassification has affected the calculation of the key financial ratio ROIC.

#### Principles of consolidation

The Consolidated financial statements include the financial statements of Novo Nordisk A/S (the Parent Company) and all the companies in which Novo Nordisk A/S directly or indirectly owns more than 50% of the voting rights or in some other way has a controlling influence (subsidiaries). Novo Nordisk A/S and these companies are referred to as the Group.

Companies that are not subsidiaries, but in which the Group holds 20% to 50% of the voting rights or in some other way has a

significant influence on the operational and financial management, are treated as associated companies.

The Consolidated financial statements are based on the Financial statements of the Parent company and of the subsidiaries and are prepared by combining items of a uniform nature and eliminating intercompany transactions, shareholdings, balances and unrealised intercompany profits and losses. The Consolidated financial statements are based on financial statements prepared by applying the Novo Nordisk Group's accounting policies.

The purchase method of accounting is used to account for the acquisition of businesses by the Group. The cost of an acquisition is measured as the fair value of the assets given and liabilities incurred or assumed at the date of exchange, plus costs directly attributable to the acquisition. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are

measured initially at their fair values at the acquisition date, irrespective of the extent of any minority interest. The excess of the cost of acquisition over the fair value of the Group's share of the identifiable net assets acquired is recorded as goodwill.

Acquired and divested companies are included in the Income statement during the period of Novo Nordisk's ownership. Comparative figures are not adjusted for disposed or acquired companies.

## **CRITICAL ACCOUNTING POLICIES**

Novo Nordisk's management considers the following to be the most important accounting policies for the Group.

### **Sales and revenue recognition**

Sales represent the fair value of the sale of goods excluding value added tax and after deduction of provisions for returned products, rebates, trade discounts and allowances.

Provisions and accruals for rebates to customers are provided for in the period the related sales are recorded. Historical data are readily available and reliable and are used for estimating the amount of the reduction in sales.

Revenue is recognised when it is realised or realisable and earned. Revenues are considered to have been earned when Novo Nordisk has substantially accomplished what it must do to be entitled to the revenues.

Revenue from the sale of goods is recognised when all the following specific conditions have been satisfied:

Novo Nordisk has transferred to the buyer the significant risk and rewards of ownership of the goods

Novo Nordisk retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold

The amount of revenue can be measured reliably

It is probable that the economic benefits associated with the transaction will flow to Novo Nordisk; and

The costs incurred or to be incurred in respect of the transaction can be measured reliably.

These conditions are usually met by the time the products are delivered to the customers.

A reliable measurement of the amount of revenue requires that reliable estimates of discounts, rebates and product returns can be made.

Licence fees are recognised on an accrual basis in accordance with the terms and substance of the relevant agreement.

As a principal rule, sale of intellectual property is recorded as income at the time of the sale. Where the Group assumes an obligation in connection with a sale of intellectual property, the income is recognised in accordance with the term of the obligation. On the sale of intellectual property where the final sale is conditional on future events, the amount is recorded as income at the occurrence of such future events.

Revenue is measured at the fair value of the consideration received or receivable.

### **Research and development**

Due to the long development period and significant uncertainties relating to the development of new products, including risks regarding clinical trials and regulatory approval, it is concluded that the Group's internal development costs in general do not meet the capitalisation criteria in IAS 38 'Intangible Assets'. Consequently the technical feasibility criteria of IAS 38 are not considered fulfilled before regulatory approval is obtained. Therefore, all internal research and development costs are expensed in the Income statement as incurred.

For acquired in-process research and development projects the effect of probability is reflected in the cost of the asset and the probability recognition criteria are therefore always considered satisfied. As the cost of acquired in-process research and development projects can often be measured reliably, these projects fulfil the criteria for capitalisation. Please refer to the section

Intangible assets regarding the accounting treatment of intangible assets.

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Property, plant and equipment used for research and development purposes are capitalised and depreciated over their estimated useful lives.

[Back to Contents](#)**notes    accounting policies****1 Summary of significant accounting policies (continued)****Derivative financial instruments**

The Group uses forward exchange contracts, currency options, interest rate swaps and currency swaps to hedge forecasted transactions, assets and liabilities, and net investments in foreign subsidiaries in foreign currencies.

Novo Nordisk applies hedge accounting under the specific rules of IAS 39 to forward exchange contracts and currency swaps. Upon initiation of the contract, the Group designates each derivative financial contract that qualifies for hedge accounting as a hedge of a specific hedged transaction: either i) a recognised asset or liability (fair value hedge), ii) a forecasted financial transaction or firm commitment (cash flow hedge), or iii) a hedge of a net investment in a foreign entity.

All contracts are initially recognised at cost and subsequently re-measured at their fair values at the balance sheet date. The value adjustments on forward exchange contracts designated as hedges of forecasted transactions are recognised directly under equity, given hedge effectiveness. The cumulative value adjustment of these contracts is removed from equity and included in the Income statement under Financial income or Financial expenses when the hedged transaction is recognised in the Income statement.

Novo Nordisk has chosen not to apply the hedge accounting requirements to interest rate swaps hedging forecasted transactions. Consequently, the fair value adjustments of these contracts are recognised in the Income statement.

Currency options are initially recognised at cost and subsequently remeasured at their fair values at the balance sheet date. While providing effective economic hedges under the Group's risk management policy, the current use of currency options does not meet the detailed requirements of IAS 39 for allowing hedge accounting. Currency options are therefore recognised directly in the Income statement under Financial income or Financial expenses.

Forward exchange contracts and currency swaps hedging recognised assets or liabilities in foreign currencies are measured at fair value at the balance sheet date. Value adjustments are recognised in the Income statement under Financial income or Financial expenses, along with any value adjustments of the hedged asset or liability that is attributable to the hedged risk.

Currency swaps used to hedge net investments in subsidiaries are measured at fair value based on the difference between the swap exchange rate and the exchange rate at the balance sheet date. The value adjustment is recognised in equity.

All fair values are based on marked-to-market prices or standard pricing models.

The accumulated net fair value of derivative financial instruments is presented as Marketable securities and financial derivatives, if positive, or Short-term debt, if negative.

**Provisions**

Provisions including tax and legal cases are recognised where a legal or constructive obligation has been incurred as a result of past events and it is probable that it will lead to an outflow of resources that can be reliably estimated. In this connection Novo Nordisk makes the estimate based upon an evaluation of the individual most likely outcome of the cases. In the case where a reliable estimate cannot be made, these are disclosed as contingent liabilities.

**OTHER ACCOUNTING POLICIES****Translation of foreign currencies***Functional and presentation currency*

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (functional currency). The Consolidated financial statements are presented in Danish kroner (DKK), which is the functional and presentation currency of the Parent company.

*Translation of transactions and balances*

Foreign currency transactions are translated into the functional currency using the exchange rates ruling at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at



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year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the Income statement, except when deferred in equity as qualifying cash flow hedges and qualifying net investment hedges.

Translation differences on non-monetary items, such as equities classified as available-for-sale financial assets, are included in the fair value reserve in equity.

### *Translation of Group companies*

Financial statements of foreign subsidiaries are translated into Danish kroner at exchange rates ruling at the balance sheet date for assets and liabilities and at average exchange rates for Income statement items.

All exchange rate adjustments are recognised in the Income statement with the exception of exchange gains and losses arising from:

The translation of foreign subsidiaries net assets at the beginning of the year translated at the exchange rates at the balance sheet date.

The translation of foreign subsidiaries income statements using average exchange rates, whereas balance sheets are translated using the exchange rates ruling at the balance sheet date.

The translation of long-term intercompany receivables that are considered to be an addition to net assets in subsidiaries.

The translation of investments in associated companies.

The above exchange gains and losses are recognised in Other comprehensive income under equity.

### **Licence fees and other operating income (net)**

Licence fees and other operating income (net) comprise licence fees and income (net) of a secondary nature in relation to the main activities of the Group. The item also includes non-recurring income items (net) in respect of sale of intellectual property.

### **Intangible assets**

#### *Goodwill*

Goodwill represents any cost in excess of identifiable net assets, measured at fair value, in the acquired company. Goodwill recorded under Intangible assets is related to subsidiaries.

Goodwill is measured at historical cost less accumulated impairment losses. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

Goodwill is allocated to cash-generating units for the purpose of impairment testing.

#### *Patents, licences and other intangibles*

Patents and licences that include acquired patents and licences to in-process research and development projects and other intangibles are carried at historical cost less accumulated amortisation and any impairment loss.

Amortisation is provided under the straight-line method over the estimated useful life of the asset (up to 10 years).

Internal development costs and the related software in connection with major IT projects for internal use are capitalised under Other intangibles.

### **Property, plant and equipment**

Property, plant and equipment are measured at historical cost less accumulated depreciation and any impairment losses. The cost of self-constructed assets includes costs directly attributable to the construction of the assets. Interest on loans financing construction of major investments is recognised as an expense in the period in which it is incurred. Subsequent cost is included in the assets carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably.

Land is not depreciated. Depreciation is provided under the straight-line method over the estimated useful lives of the assets as follows:

Buildings: 12–50 years.

Plant and machinery: 5–16 years.

Other equipment: 3–16 years.

Minor fixed assets below DKK 100,000 and fixed assets with limited expected useful lives are charged to the Income statement in the year of acquisition.

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The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance sheet date.

An asset's carrying amount is written down to its recoverable amount if the asset's carrying amount is higher than its estimated recoverable amount.

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## notes accounting policies

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### 1 Summary of significant accounting policies (continued)

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#### Leases

Leases of assets whereby the Group assumes substantially all the risks and rewards of ownership are capitalised as finance leases under Property, plant and equipment and depreciated over the estimated useful lives of the assets, according to the periods listed above. The corresponding finance lease liabilities are included in liabilities.

Operating lease costs are charged to the Income statement on a straight-line basis over the period of the lease.

#### Investments in associated companies

Investments in associated companies are accounted for under the equity method of accounting (ie at the respective share of the associated companies' net asset value applying Group accounting policies).

Goodwill relating to associated companies is recorded under Investments in associated companies.

#### Impairment of assets

The Group assesses the carrying amount of identifiable intangible assets, long-lived assets and goodwill annually, or more frequently if events or changes in circumstances indicate that such carrying amounts may not be recoverable. Factors considered material by the Group and that could trigger an impairment test include the following:

Significant underperformance relative to historical or projected future results.

Significant changes in the manner of the Group's use of the acquired assets or the strategy for our overall business.

Significant negative industry or economic trends.

When it is determined that the carrying amount of intangible assets, long-lived assets or goodwill may not be recoverable based upon the existence of one or more of the above indicators of impairment, any impairment is measured based on discounted projected cash flows.

This impairment test is based upon management's projections and anticipated future cash flows. The most significant variables in determining cash flows are discount rates, terminal values, the number of years on which to base the cash flow projections, as well as the assumptions and estimates used to determine the cash inflows and outflows. Management determines the discount rates to be used based on the risk inherent in the related activity's current business model and industry comparisons. Terminal values are based on the expected life of products, forecasted lifecycle and forecasted cash flows over that period.

While the assumptions are believed to be appropriate, the amounts estimated could differ materially from what actually occurs in the future. These discounted cash flows are prepared at cash-generating-unit level.

#### Financial assets

The Group classifies its investments in the following categories: Financial assets at fair value through profit or loss (financial derivatives), Loans and receivables and Available-for-sale financial assets. The classification depends on the purpose for which the investments were acquired. Management determines the classification of its investments on initial recognition and re-evaluates this designation at every reporting date.

##### *Financial assets at fair value through profit or loss*

Financial assets at fair value through profit or loss include financial derivatives used for hedging purposes. Assets in this category are classified as current assets.

##### *Loans and receivables*

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Loans and receivables are included in Trade receivables and Other receivables in the Balance sheet.

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Trade receivables and Other receivables are stated at amortised cost less allowances for doubtful trade receivables. The allowances are based on an individual assessment of each receivable, which also includes an assessment of payment risk associated with individual countries.

### *Available-for-sale financial assets*

Available-for-sale financial assets are non-derivatives that are either designated in this category or not classified in any of the other categories. They are included in Other financial assets unless Management intends to dispose of the investment within 12 months of the balance sheet date. Marketable securities under current assets are classified as available-for-sale financial assets.

### *Recognition and measurement*

Purchases and sales of investments are recognised on the settlement date. Investments are initially recognised at fair value plus transaction costs for all financial assets not classified as fair value through profit or loss.

Investments are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the Group has transferred substantially all risks and rewards of ownership.

Available-for-sale financial assets and financial assets at fair value through profit or loss are subsequently carried at fair value. Loans and receivables are carried at amortised cost using the effective interest method.

Unrealised gains and losses arising from changes in the fair value of financial assets classified as available-for-sale are recognised in equity. When financial assets classified as available-for-sale are sold or impaired, the accumulated fair value adjustments are included in the Income statement as gains and losses from available-for-sale financial assets.

The fair values of quoted investments are based on current bid prices. Financial assets for which no active market exists are carried at cost.

The Group assesses at each balance sheet date whether there is objective evidence that a financial asset or a group of financial assets has been impaired. If any such evidence exists for available-for-sale financial assets, the cumulative loss is removed from equity and recognised in the Income statement. Impairment losses recognised in the Income statement on equity instruments are not reversed through the Income statement.

## **Inventories**

Raw materials and consumables are measured at cost assigned by using the first-in, first-out method.

Work in progress and finished goods are stated at cost assigned by using the first-in, first-out method. Cost comprises direct production costs such as raw materials, consumables, energy and labour, and production overheads such as employee costs, depreciation, maintenance etc. The production overheads are measured based on a standard cost method which is reviewed regularly in order to ensure relevant measures of utilisation, production lead time etc.

If the expected sales price less completion costs and costs to execute sales (net realisable value) is lower than the carrying amount, a write-down is recognised for the amount by which the carrying amount exceeds its net realisable value.

## **Tax**

Income taxes in the Income statement include tax payable for the year with addition of the change in deferred tax for the year.

Deferred income taxes arise from temporary differences between the accounting and tax balance sheets of the individual consolidated companies and from realisable tax-loss carry-forwards, using the liability method. The tax value of tax-loss carry-forwards will be included in deferred tax assets to the extent that the tax losses and other tax assets are expected to be utilised in the future taxable income. The deferred taxes are measured according to current tax rules and at the tax rates expected to be in force on the elimination of the temporary differences.

Tax payable/receivable includes tax payable computed on the basis of the expected taxable income for the year and adjustments for tax payable for previous years.

## **Employee benefits**

Wages, salaries, social security contributions, paid annual leave and sick leave, bonuses, and non-monetary benefits are accrued in the year in which the associated services are rendered by employees of the Group. Where the Group provides long-term employee benefits, the costs are accrued to match the rendering of the services by the employees concerned.



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**1 Summary of significant accounting policies (continued)**

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*Pensions*

The Group operates a number of defined benefit and defined contribution plans throughout the world. The costs for the year for defined benefit plans are determined using the projected unit credit method. This reflects services rendered by employees to the dates of valuation and is based on actuarial assumptions primarily regarding discount rates used in determining the present value of benefits, projected rates of remuneration growth, and long-term expected rates of return for plan assets. Discount rates are based on the market yields of high-rated corporate bonds in the country concerned.

Differences between assumptions and actual events and effects of changes in actuarial assumptions are allocated over the estimated average remaining working lives of employees, where these differences exceed a defined corridor.

Past service costs are allocated over the average period until the benefits become vested.

Pension assets and liabilities in different defined benefit schemes are not offset unless the Group has a legally enforceable right to use the surplus in one plan to settle obligations in the other plan. Pension assets are only recognised to the extent that the Group is able to derive future economic benefits in the way of refunds from the plan or reductions of future contributions.

The Group's contributions to the defined contribution plans are charged to the Income statement in the year to which they relate.

*Share-based compensation*

The Group operates equity-settled, share-based compensation plans. The fair value of the employee services received in exchange for the grant of the options or shares is recognised as an expense and allocated over the vesting period.

The total amount to be expensed over the vesting period is determined by reference to the fair value of the options or shares granted, excluding the impact of any non-market vesting conditions. The fair value is fixed at grant date. Non-market vesting conditions are included in assumptions about the number of options that are expected to become exercisable. At each balance sheet date, the Group revises its estimates of the number of

**Liabilities**

Generally, liabilities are stated at amortised cost unless specifically mentioned otherwise.

**Treasury shares**

Treasury shares are deducted from share capital at their nominal value of DKK 2 per share. Differences between this amount and the amount paid for acquiring, or received for disposing of, treasury shares are deducted from retained earnings.

**Dividends**

Dividends are recognised as a liability in the period in which they are declared at the Annual General Meeting.

**Consolidated statement of cash flows and financial resources**

The Consolidated statement of cash flows and financial resources is presented in accordance with the indirect method commencing with net profit. The statement shows cash flows for the year, the net change in cash and cash equivalents for the year, and cash and cash equivalents at the beginning and the end of the year.

Cash and cash equivalents consist of cash and marketable securities, with original maturity of less than three months, less short-term bank loans. Financial resources consist of cash and cash equivalents, bonds with original term to maturity exceeding three months, and undrawn committed credit facilities expiring after more than one year.

**United States Generally Accepted Accounting Principles (US GAAP)**

The Group prepares a reconciliation of the effect on net profit, equity and balance sheet of the application of US Generally Accepted Accounting Principles (US GAAP) in lieu of International Financial Reporting Standards. Note 38 discloses the US GAAP reconciliation.

options that are expected to become exercisable. Novo Nordisk recognises the impact of the revision of the original estimates, if any, in the Income statement and a corresponding adjustment to equity over the remaining vesting period. Adjustments relating to prior years are included in the Income statement in the year of adjustment truing up .

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## 2 Changes in the scope of consolidation

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In January 2005, Novo Nordisk's wholly owned subsidiary Novo Nordisk Delivery Technologies, Inc completed the acquisition of a business unit from Aradigm Corporation related to the AERx<sup>®</sup> insulin Diabetes Management System (iDMS). The date of acquisition was 26 January 2005. The cost of the combination was DKK 358 million consisting of DKK 350 million in purchase price and DKK 8 million in assumed liabilities. The purchase price was paid in cash. The net assets are included in the consolidation as from 26 January 2005. The acquisition was accounted for under the purchase method of accounting and there was

no goodwill related to the acquisition. Note 29 shows the assets and liabilities recognised as a result of the business combination. These values approximate their carrying amounts immediately before the combination.

In 2004, no changes in the scope of consolidation occurred.

In 2003, Novo Nordisk acquired 55% of the Algerian company Aldaph SpA for DKK 0. There was no goodwill related to the acquisition. Until the acquisition of these shares, Aldaph SpA was an associated company of Novo Nordisk and Novo Nordisk owned 45% of the share capital.

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## notes accounting policies

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### 3 Critical accounting estimates and judgements

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The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date(s) of the financial statements and the reported amounts of revenues and expenses during the reporting period(s). Management bases its estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgements about the reported carrying amounts of assets and liabilities and the reported amounts of revenues and expenses that may not be readily apparent from other sources. Actual results could differ from those estimates. Novo Nordisk believes the following are the significant accounting estimates and related judgements used in the preparation of its Consolidated financial statements.

#### Sales rebate accruals and provisions

Sales rebate accruals and provisions are established in the same period as the related sales. The sales rebate accruals and provisions are recorded as a reduction in sales and are included in Other provisions and Other liabilities.

The accruals and provisions are based upon historical rebate payments. They are calculated based upon a percentage of sales for each product as defined by the contracts with the various customer groups.

Factors that complicate the rebate calculations are identification of which products have been sold subject to a rebate, which customer or government price terms apply, and the estimated lag time between sale and payment of a rebate.

Novo Nordisk believes that the accruals and provisions established for sales rebates are reasonable and appropriate based on current facts and circumstances. However, actual amount of rebates and discounts may differ from the amounts estimated by Management.

The carrying amount of sales rebate accruals and provisions is DKK 1,872 million at 31 December 2005; please refer to note 5 for further information.

#### Indirect Production Costs (IPC)

Work in progress and finished goods are stated at cost assigned by using the first-in, first-out method. Cost comprises direct production costs such as raw materials,

#### Allowances for doubtful trade receivables

Trade receivables are stated at amortised cost less allowances for potential losses on doubtful debts.

Novo Nordisk maintains allowances for doubtful trade receivables for estimated losses resulting from the subsequent inability of the customers to make required payments. If the financial conditions of the customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required in future periods. Management specifically analyses trade receivables and analyses historical bad debt, customer concentrations, customer creditworthiness, current economic trends and changes in the customer payment terms when evaluating the adequacy of the allowance for doubtful trade receivables.

The uncertainty connected with the allowance for doubtful trade receivables is considered limited. The carrying amount of allowances for doubtful trade receivables is DKK 419 million at 31 December 2005.

#### Income taxes

Management judgement is required in determining the Group's provision for deferred income tax assets and liabilities. Novo Nordisk recognises deferred income tax assets if it is probable that sufficient taxable income will be available in the future against which the temporary differences and unused tax losses can be utilised. Management has considered future taxable income in assessing whether deferred income tax assets as well as outcome of tax cases should be recognised.

The carrying amount of deferred income tax assets and deferred income tax liabilities is DKK 879 million and DKK 1,846 million respectively at 31 December 2005.

#### Provisions and contingencies

As part of normal business Novo Nordisk issues credit notes for expired goods. Consequently a provision for future returns is made, based on historical statistical product returns. The pattern in returns in the future may be different from previous patterns.

The carrying amount of provision for returned products is DKK 496 million at 31 December 2005.

Management of the Group makes judgements about provisions and contingencies, including the probability of pending and potential future litigation outcomes that in nature are dependent on future events that are inherently



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consumables, energy and labour, as well as IPC such as employee costs, depreciation, maintenance etc.

IPC are measured based on a standard cost method which is reviewed regularly in order to ensure relevant measures of utilisation, production lead time and other relevant factors. Changes in the method for calculation of IPC, including utilisation levels, production lead time etc in the calculation of IPC, could have an impact on the gross margin and the overall valuation of inventories. The carrying amount of IPC is DKK 3,536 million at 31 December 2005.

uncertain. In making its determinations of likely outcomes of litigation, etc, management considers the evaluation of external counsel knowledgeable about each matter, as well as known outcomes in case law. See note 37 for a description of significant litigations pending.

[Back to Contents](#)**financial definitions****ADRs**

American Depositary Receipts.

**Basic earnings per share (EPS)**

Net profit divided by the average number of shares outstanding.

**Cash to earnings**

Free cash flow as a percentage of net profit.

**Diluted earnings per share**

Net profit divided by the sum of average number of shares outstanding including the dilutive effect of share options in the money in accordance with IAS 33. The dilutive effect of share options in the money is calculated as the difference between the following: 1) the number of shares that could have been acquired at fair value with proceeds from the exercise of the share options and 2) the number of shares that would have been issued assuming the exercise of the share options. The difference (the dilutive effect) is added to the denominator as an issue of shares for no consideration.

**Effective tax rate**

Income taxes as a percentage of profit before income taxes.

**Equity ratio**

Equity at year-end as a percentage of the sum of total liabilities and equity at year-end.

**Free cash flow**

The sum of Cash flow from operating activities and Cash flow from investing activities excluding Net changes in marketable securities.

**Gross margin**

Gross profit as a percentage of sales.

**Net profit margin**

Net profit as a percentage of sales.

**Number of shares outstanding**

The number of shares outstanding is the total number of shares excluding the holding of treasury shares.

**Operating profit**

Earnings before tax, financial items and share of profit/loss in associated companies.

**Operating profit margin**

Operating profit as a percentage of sales.

**Payout ratio**

Total dividends for the year as a percentage of net profit.

**ROIC (return on invested capital)**

Operating profit after tax (using the effective rate) as a percentage of average inventories, receivables, property, plant and equipment as well as intangible assets less non-interest bearing liabilities including provisions (the sum of the above assets and liabilities at the beginning of the year and at year-end divided by two).

[Back to Contents](#)**notes consolidated income statement****4 Segment information****Primary reporting format Business segments**

At 31 December 2005, the Novo Nordisk Group operates on a worldwide basis in two business segments (the primary reporting format):

**Diabetes care:**

The business segment includes discovery, development, manufacturing and marketing of products within the areas of insulin and delivery systems and oral antidiabetic products (OAD).

**Biopharmaceuticals:**

The business segment includes discovery, development, manufacturing and marketing of products within the therapy areas haemostasis management

(NovoSeven®), growth hormone therapy, hormone replacement therapy and other products.

There are no sales or other transactions between the business segments. Costs have been split between business segments based on a specific allocation with the addition of a minor number of corporate overheads allocated systematically to the segments. Segment assets comprise the assets that are applied directly to the activities of the segment, including intangible assets, property, plant and equipment, long-term financial assets, inventories, trade receivables and other receivables. Segment liabilities comprise liabilities derived from the activities of the segment, including provisions, trade payables and other liabilities.

<b>Business segments</b>	<b>2005</b>	2004	2003
DKK million		Diabetes care	
Segment sales and results			
Sales			
Insulin analogues	<b>7,298</b>	4,507	2,553
Human insulin and insulin-related sales	<b>15,006</b>	14,383	14,492
Oral antidiabetic products (OAD)	<b>1,708</b>	1,643	1,430
Diabetes care total	<b>24,012</b>	20,533	18,475
Haemostasis management (NovoSeven®)			
Growth hormone therapy Hormone replacement therapy			
Other products			
Biopharmaceuticals total			
Sales	<b>24,012</b>	20,533	18,475
Change in DKK (%)	<b>16.9%</b>	11.1%	5.8%
Change in local currencies (%)	<b>15.9%</b>	14.7%	16.0%
Operating profit	<b>4,055</b>	3,404	3,142

Share of profit in associated companies  
 Financial income (net) Profit before income taxes Income taxes

Net profit

Other segment items

Research and development costs	<b>3,177</b>	2,932	2,805
Depreciation and amortisation	<b>1,446</b>	1,312	1,125
Impairment losses in the Income statement	<b>171</b>	320	143

### Geographical segments

	2005	2004	2003	2005	2004	2003
DKK million	Europe			North America		
Sales	<b>13,447</b>	12,411	11,697	<b>9,532</b>	7,478	6,219
Change in DKK (%)	<b>8.3%</b>	6.1%	7.4%	<b>27.5%</b>	20.2%	7.5%
Additions to property, plant and equipment and intangible assets including acquisition of business units (net)	<b>2,332</b>	2,831	2,137	<b>801</b>	133	63
Property, plant and equipment	<b>16,946</b>	16,519	15,510	<b>1,212</b>	425	366
Total assets	<b>32,523</b>	31,198	29,166	<b>4,205</b>	2,725	2,270

[Back to Contents](#)**notes consolidated income statement****4 Segment information (continued)****Secondary reporting format Geographical segments**

The Novo Nordisk Group operates in four main geographical areas (the secondary reporting format):

**Europe:** EU, EFTA

**North America:** USA and Canada

**Japan & Oceania:** Japan, Australia and New Zealand

**International Operations:** All other countries

Sales are attributed to geographical segments based on the location of the customer. There are no sales between segments.

Total assets and additions to property, plant and equipment and intangible assets are based on the location of the assets.

The segments and regions are the same as those used for internal reporting, allowing a reliable assessment of risk and returns.

2005	2004	2003	2005	2004	2003	2005	2004	2003
Biopharmaceuticals			Corporate/unallocated			<b>Total</b>		
						<b>7,298</b>	4,507	2,553
						<b>15,006</b>	14,383	14,492
						<b>1,708</b>	1,643	1,430
						<b>24,012</b>	20,533	18,475
<b>5,064</b>	4,359	3,843				<b>5,064</b>	4,359	3,843
<b>2,781</b>	2,317	2,133				<b>2,781</b>	2,317	2,133
<b>1,565</b>	1,488	1,322				<b>1,565</b>	1,488	1,322
<b>338</b>	334	385				<b>338</b>	334	385
<b>9,748</b>	8,498	7,683				<b>9,748</b>	8,498	7,683
<b>9,748</b>	8,498	7,683				<b>33,760</b>	29,031	26,158
<b>14.7%</b>	10.6%	3.7%				<b>16.3%</b>	11.0%	5.2%
<b>14.2%</b>	15.4%	14.0%				<b>15.4%</b>	14.9%	15.0%
<b>4,033</b>	3,576	3,280				<b>8,088</b>	6,980	6,422
			<b>319</b>	(117)	(59)	<b>319</b>	(117)	(59)
			<b>(173)</b>	594	1,013	<b>(173)</b>	594	1,013
			<b>2,370</b>	2,444	2,543	<b>2,370</b>	2,444	2,543

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						<b>5,864</b>	5,013	4,833
<b>1,908</b>	1,420	1,250				<b>5,085</b>	4,352	4,055
<b>309</b>	254	278	<b>4</b>			<b>1,759</b>	1,566	1,403
	6	35				<b>171</b>	326	178
<b>727</b>	583	388	<b>4</b>			<b>4,241</b>	3,235	2,318
				18			18	
<b>3,625</b>	3,185	3,020	<b>1,273</b>	1,229	947	<b>22,400</b>	19,684	18,372
<b>6,566</b>	5,644	5,495	<b>6,910</b>	6,792	5,158	<b>41,960</b>	37,433	34,564
<b>1,959</b>	1,581	1,416	<b>5,732</b>	4,560	4,131	<b>14,326</b>	10,929	9,788

<b>2005</b>	2004	2003	<b>2005</b>	2004	2003	<b>2005</b>	2004	2003
International Operations			Japan & Oceania			Total		
<b>6,070</b>	4,844	4,227	<b>4,711</b>	4,298	4,015	<b>33,760</b>	29,031	26,158
<b>25.3%</b>	14.6%	3.1%	<b>9.6%</b>	7.0%	1.9%	<b>16.3%</b>	11.0%	5.2%
<b>1,088</b>	252	83	<b>20</b>	19	35	<b>4,241</b>	3,235	2,318
<b>1,546</b>	376	184	<b>237</b>	239	282	<b>19,941</b>	17,559	16,342
<b>4,212</b>	2,387	2,260	<b>1,020</b>	1,123	868	<b>41,960</b>	37,433	34,564

[Back to Contents](#)**notes consolidated income statement****5 Sales rebate accruals and provisions**

DKK million	2005	2004	2003
At the beginning of the year	<b>1,031</b>	745	660
Additional rebates deducted from sales	<b>2,637</b>	1,600	1,069
Payments and grants of rebates during the year	<b>(1,943)</b>	(1,258)	(888)
Exchange rate adjustments	<b>147</b>	(56)	(96)
At the end of the year	<b>1,872</b>	1,031	745
Specification of sales rebate accruals and provisions:			
Other liabilities	<b>77</b>	107	94
Current provisions	<b>1,795</b>	924	651
Total sales rebate accruals and provisions	<b>1,872</b>	1,031	745

**6 Employee costs**

DKK million	2005	2004	2003
Wages and salaries	<b>9,101</b>	8,119	7,657
Share-based payment costs (refer to note 34)	<b>223</b>	104	76
Pensions defined contribution plans	<b>660</b>	592	516
Pensions defined benefit plans (refer to note 24)	<b>137</b>	100	91
Other contributions to social security	<b>584</b>	488	483
Other employee costs	<b>793</b>	660	554
Total employee costs	<b>11,498</b>	10,063	9,377

Included in the Income  
statement

under the following headings:

Cost of goods sold	<b>3,664</b>	3,219	2,951
Sales and distribution costs	<b>3,380</b>	2,868	2,756
Research and development costs	<b>2,095</b>	1,713	1,516
Administrative expenses	<b>1,751</b>	1,523	1,479

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Total included in the Income statement	<b>10,890</b>	9,323	8,702
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Included in the Balance sheet as:

Capitalised employee costs related to assets in course of construction etc	<b>605</b>	598	524
Change in employee costs included in inventories	<b>3</b>	142	151

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Total included in the Balance sheet	<b>608</b>	740	675
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Total employee costs	<b>11,498</b>	10,063	9,377
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For information on remuneration to the Board of Directors and Executive Management, please refer to note 35.