

**Novo Nordisk
Investor Presentation
Fall 2000**

An edited summary of remarks by

Speakers:

Lars Rebien Sørensen
President and
Chief Executive Officer

Lars Alblom Jørgensen
Chief Operating Officer

Mads Krogsgaard Thomsen
Chief Science Officer

Jesper Brangaard
Chief Financial Officer

Kåre Schultz
Chief of Staffs and Quality

**Global Niche Pharma with Biotech Expertise
7 September 2000 Watermen's Hall, London**

Lars Rebien Sørensen: First of all, welcome! It is nice to be back here in London. It is a little bit out of season for us to be on the roadshow, but we believe we have an interesting story to tell you and therefore we are pleased that you could come. Thank you also to JP Morgan for setting up the meeting in this wonderful setting and a special thanks to Kurt Anker Nielsen, the Deputy CEO of Novo Nordisk, that is here with us today. He is not going to give a presentation as he usually does in London, but he is here as a mental support for us if we get into trouble, so thank you very much to Kurt for being here.

Novo Nordisk A/S

Global Niche Pharma with Biotech Expertise

Fall 2000

Demerger process update



Ladies and gentlemen, this is the roadshow for the healthcare business and I will just briefly describe why we are here before I introduce my colleagues. As you know the company is demerging into an industrial entity, which will be called Novozymes and a pure play health care company, which will retain the old name Novo Nordisk. We now have a timetable on when this will happen, 13 November, and prior to that we will obviously provide you with a great deal of information in the form of a demerger document and also, as far as it goes, the new enzyme stock prospectus.

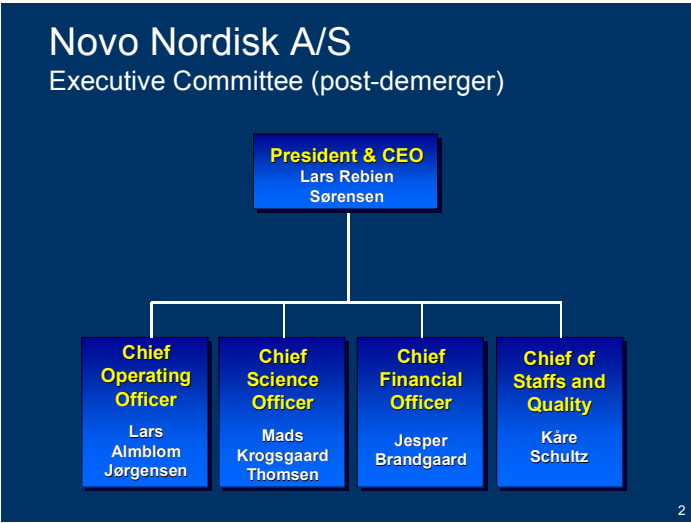
Likewise, as we are now conducting a roadshow for the health care business to try to direct your focus towards what the company is going to look like, what the prospects are and what the management looks like, the enzyme management group will be coming around prior to the demerger to give you a similar presentation about the future for the enzyme company.

Novo Nordisk A/S – Executive Committee (post-demerger)

Let me introduce the team we have here today. It is a great pleasure to introduce you to my colleagues. They are young but they are not unproven. This group has been managing the health care business for Novo Nordisk for the last six years, and as such has some experience in running the business. Lars Almbloom Jørgensen, Chief Operating Officer. For us this is sales marketing and manufacturing. Kåre Schultz, is head of staff, quality, IT, legal, business development and all other things. Jesper Brandgaard, Chief Finance Officer, has been heading up the de-merger project under the guidance of Kurt Anker Nielsen and he has been

Demerger process update

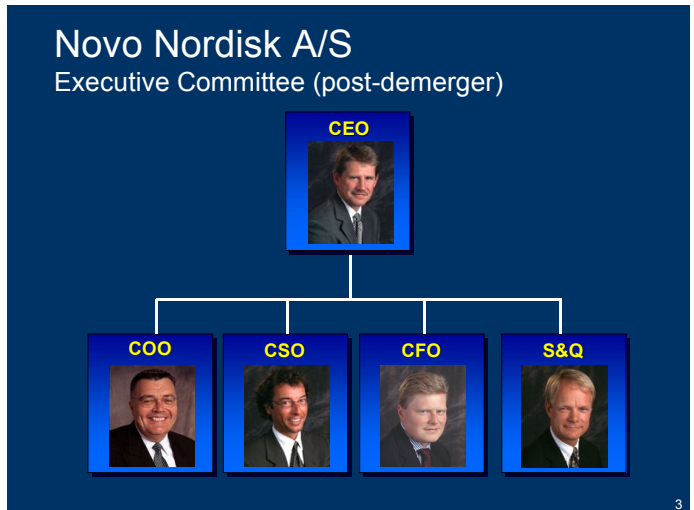
	Health Care	Enzymes
		
<i>Detailed historic financial data</i>	Demerger Document, October 2000	Demerger Document and Prospectus, October 2000
<i>Road shows</i>	Aug./Sept. 2000	November 2000
<i>Extraordinary Gen. Meeting</i>	November 13, 2000	
<i>Pure Play Listing</i>	Nov./Dec. 2000	



doing a great job. Mads Krogsgaard Thomsen, Chief Science Officer, is a face known to many of you and has been involved in our drug discovery and development activities for quite a few years. Also we have Carsten Bøss and Rasmus Holm-Jørgensen from Investor Relations. That is the team.

Novo Nordisk A/S – Executive Committee (post-demerger)

These are the faces.



A global niche pharma company

This is the story. The departure point for the company is one where we had certain strength in areas that we have selected to focus on for the future. We have a very strong position in diabetes and we are the largest company in diabetes care, both in terms of research efforts and product sales. We have a strong presence in haematology and growth disorders, and we believe that we have a world-class pipeline in key therapeutic areas that we have selected, and we will try to substantiate this.

Another point to note is that due to our background we have the original biotechnological expertise and level of competencies required. Think only of insulin, which was the first biotech product, and other products like growth hormone, NovoSeven®, Glucagen®, TPO, PDGF. A lot of innovations have come from Novo Nordisk that are all biotech products. We intend to focus on this even more in the future with the innovation coming from ZymoGenetics.

When you are selling drugs that are therapeutic proteins you need to have drug delivery technology. Diabetes is the biggest area as far as drug delivery technology goes because we are selling millions and millions of delivery systems every year in the form of our devices.

Historically, we have a strong presence in the European scene and also a dominating position in

A global niche pharma company

- Leadership position in diabetes care
- Strong market presence in haematology and growth disorders
- World class pipeline in key therapeutic areas
- Proven, genuine biotech expertise in R&D and access to ZymoGenetics
- Drug delivery technology platform
- Outstanding presence in Europe and Japan
- US growth platform
- Strong sales growth, significant cash flow generation, robust balance sheet.

Japan having worked in Japan for a couple of decades now. We have a relatively modest position in the US but, as you will see, it is a business that is growing for us and increasing in importance and obviously the US market has a great potential for us going forward.

Lately you will have seen segmented data for the health care business. We have given you segmented data on some of the numbers for the last 3 years and you will see strong sales growth, strong cash flow generation and a very robust balance sheet.

Novo Nordisk – Key drivers

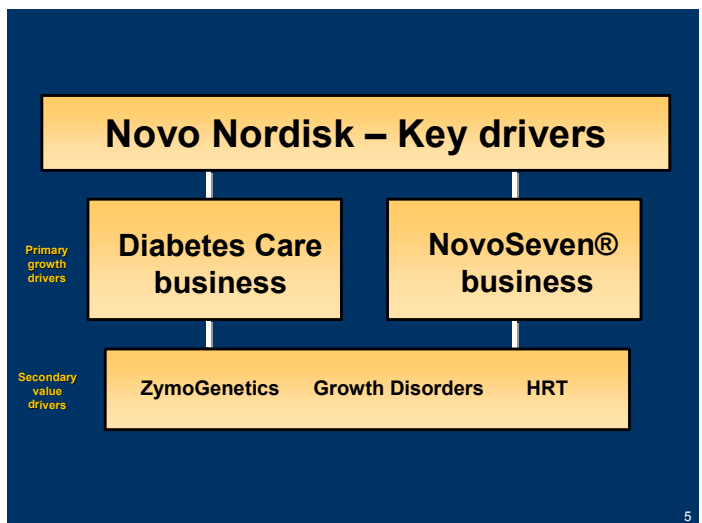
The short story about the future for the Novo Nordisk health care company is that the two primary growth drivers will be our diabetes care business and the NovoSeven® business. Then there are some secondary growth drivers, one is ZymoGenetics, our genomics based company in Seattle, Washington. We will revert to how we intend to take advantage of this company's innovative capabilities to ensure that we renew our pipeline in the area of either diabetes, or more importantly, new biotech products like NovoSeven®. Growth disorders is contributing nicely to our business as you will see, and likewise HRT.

Our ambition

Our ambition is to stay ahead in diabetes and we are making significant investments in both sales marketing, innovation and manufacturing. We will also offer products in areas that are outside of diabetes that lend themselves to the competencies we have. Building on traditional biotechnology and new genomics-based biotechnology.

We intend to grow our pipeline through internal but increasingly also through external collaborations. This is a tradition of ours. Very early on, we past the 20% in terms of resources spent externally and we will push this even further going forward.

Finally, we would like to continue the financial development that we have seen. I can confirm that we have surpassed the four financial navigation marks that the corporation has set for itself which were that we should have a 20% or better operating margin; a 15% growth in operating profit; a 20% return on the invested



- ### Our ambition
- Continue to be the world's leading diabetes care company
 - Offer products and services in other areas where we can make a difference
 - Grow our product pipeline through internal and external sourcing
 - Build upon our biotechnology expertise and link with ZymoGenetics to harness the full potential of the genomics revolution
 - Continue to improve financial performance.

capital (RONFA) and positive cash flow after dividends. The health care business has surpassed all these navigation marks and hence we are looking at defining new navigation marks for the future. However, we think it is only fair that we invite the new board of directors to the company and have them commit to these new navigation marks. Hence we will communicate this in February when we return here to announce the annual results for 2000.

This was the short story – the introduction – and now on to Sales and Marketing. Here is Lars Alblom Jørgensen.

Lars Alblom Jørgensen

Thank you Lars. Good afternoon, ladies and gentlemen. I am in charge of sales marketing and manufacturing in the health care part of Novo Nordisk today.

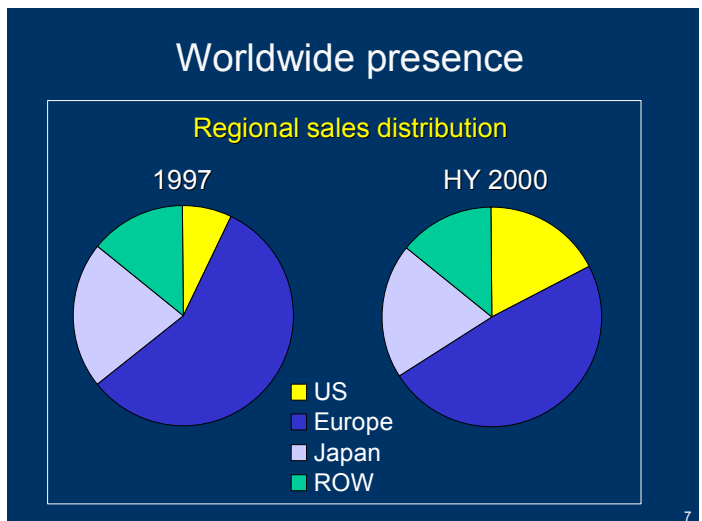
Worldwide presence

This pie chart shows that over the last three years we have seen some changes in the geographical constitution of our sales in the sense that the USA has increased its relative importance from being around 7-8% to about 14-15% of sales. Traditionally, Japan has been our biggest single market in the group, but this year the USA will become the biggest single affiliate for Novo Nordisk health care. This is due to good performance in our insulin business, and certainly also with the launch of Prandin™ in 1998 in the US, and the launch last year of NovoSeven® in the USA.

Health Care half year 2000

Looking at the sales evolution in the first half of 2000 compared with the first half of 1999, we show a 26% increase in sales over the first half last year. Currency effects account for 10% and 16% is the effect of volume and product mix. You will see that all the therapeutic areas have shown strong, growth going forward – 21% in insulin and devices, 59% in Prandin™/ NovoNorm®, giving a 23% increase in diabetes care in total.

NovoSeven® has increased by 84%, an unusually strong growth that I will come back to a little later during my presentation and discuss. Growth disorders/growth hormone has increased nicely by 20%, and also HRT and other areas have contributed to the growth of our business.



Health Care half year 2000
Turnover by therapy

DKK million	2000	1999	% of total	% chg.
Insulin and devices etc.	6,321	5,217	65%	21%
NovoNorm®/Prandin™	513	323	5%	59%
Diabetes Care, Total	6,834	5,540	70%	23%
NovoSeven®	1,034	561	11%	84%
Growth Disorders	952	795	10%	20%
HRT	603	556	6%	8%
Other	246	222	3%	11%
Health Care, Total	9,669	7,674	100%	26%

Diabetes Care

Let us now look at the diabetes care business and get some more details on that.



Health Care half year 2000

Insulin and devices is an important part of our business in as much as 65% of sales are generated by that category. Two-thirds of our business is insulin and devices, and therefore it is worthwhile taking a closer look in terms of how we have been doing and how we expect to be doing going forward.

Novo Nordisk is indeed the largest company in the world in terms of sales of diabetes products. No other company sells more than Novo Nordisk does in this product area.

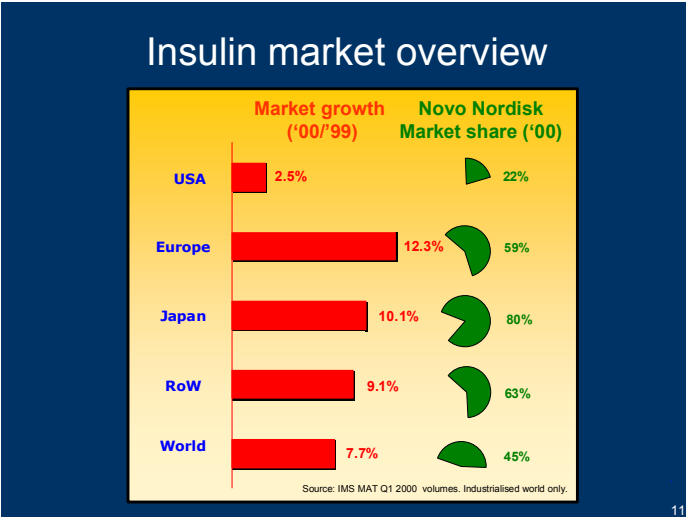
**Health Care half year 2000
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Insulin market overview

The overall insulin market has grown 7.7% on a worldwide volume basis but we can see that there are some major differences in the growth rates. The USA had 2.5% growth compared to Europe with 12.3%. The US growth of 2.5% is good news in a sense that the US has, as you may have observed, been in a flat mode for some time. As a function of the introduction of insulin sensitisers we saw that there has been some postponement of initiation of insulin in the US treatment picture. This seems to be coming back now and we are getting into a more demographically driven, normal growth pattern of the US insulin market.

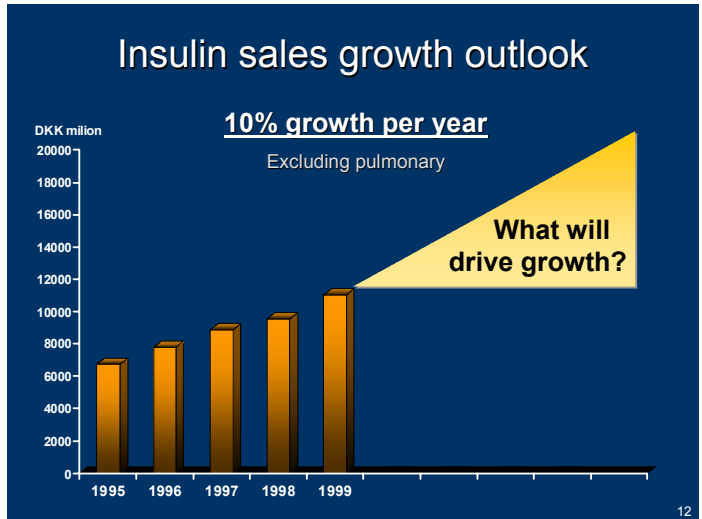
In Europe, we have seen extraordinary high growth and that has been fuelled especially by Germany, where we have seen a surge towards initiating more Type 2 patients earlier with insulin, as a function of the recommendations which were contained in the UKPDS study (see also slide 16).



On the right hand side of this panel we show our relative size in the various. We are strong in those areas where growth is high with a 59% share of the European market, 80% share of the Japanese market and 63% share of the rest of the world giving a worldwide share of 45%. The USA, with 22%, represents an upside going forward, as we will come back to in a minute.

Insulin sales growth outlook

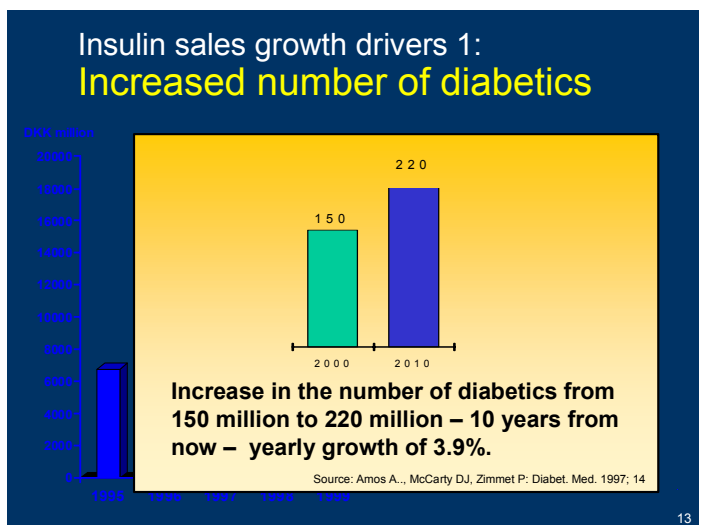
In the past we have been able to grow our insulin business by 10-12-13%. We believe we can continue to do that in the future and we are stating that a 10% growth per year is something that we will be looking at going forward from here onwards.



Insulin sales growth drivers 1: Increased number of diabetics

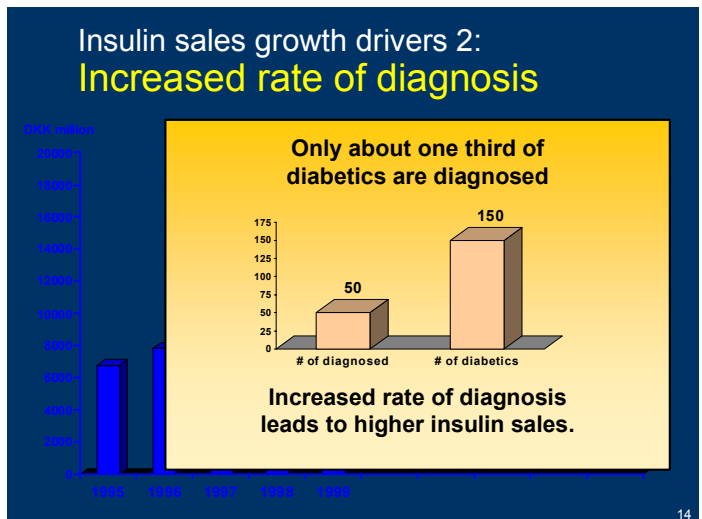
Let us then take a brief look at the growth drivers substantiating such a claim. Why are we confident that we can grow our insulin business by 10% going forward?

First of all, we know that there is a major increase in the number of diabetics worldwide. It is estimated today that about 150 million people around the world are suffering from diabetes, and it is also expected by the epidemiology community in the area of diabetes that this number will grow to 220 million by 2010. So, that is almost 4% growth in the number of diabetics per year.



Insulin sales growth drivers 2: Increased rate of diagnosis

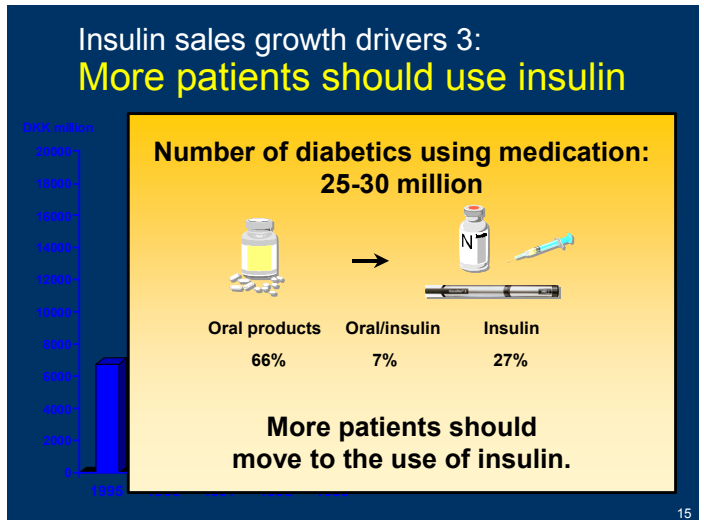
It is estimated that only about a third of people suffering from diabetes know they are sufferers: two-thirds are not yet diagnosed. Increased rate of diagnosis will move the market upwards and is going to be one of the growth drivers. You will perhaps have noticed that last week's Newsweek magazine featured an article on diabetes on the front page talking about the growth of the disease in the USA and also in the rest of the world. This is just one example of the increasing awareness of this disease. We are working on increasing awareness and diagnosis rate, WHO is working on it and so on. So, the increased rate of



diagnosis is also increasing the size of the market.

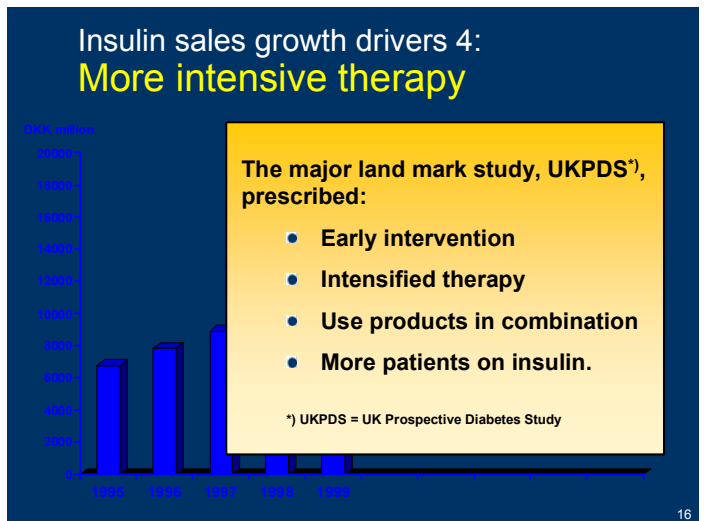
Insulin sales growth drivers 3: More patients should use insulin

About half the 50 million people who are diagnosed are treated with medication. More and more people are being treated with medication and, of those treated with medication, more and more people are also being treated with insulin. There is a move towards more medication and there is also a move, as I just said, being spearheaded in Europe towards more intensified treatment with insulin also in the area of Type 2 diabetes.



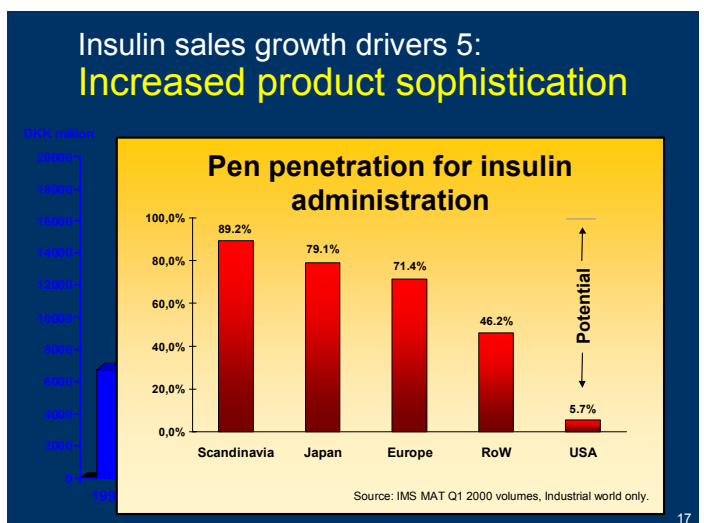
Insulin sales growth drivers 4: More intensive therapy

This is because it has been recommended by the medical community to do so – most lately in a big study called UKPDS, which is an over 50,000 patient year strong, prospective study, which has clearly shown that early intervention is the way to go in order to achieve a better outcome of the treatment. Intensified treatment is the way to go - a higher degree of combination of oral insulin, various types of orals and so on, and, last but certainly not least, it strongly recommends that more patients should be treated with insulin. These recommendations have fuelled the growth recently in the market for insulin in Europe.



Pen penetration

We have also seen that product sophistication is the way to grow the market. It is value driver of the market, and here treatment by injection devices is certainly one way that we in Novo Nordisk have taken the lead. We initiated this 15 years ago with the introduction of Novopen and we have managed over the years to increase the penetration of pen systems as the preferred mode of treatment. In Scandinavia 90% of all insulin take-in is taken through the use of injection devices and in Japan it is 80%. In Europe in total it is about 70% and, of course, the big potential is the USA. Jokingly, you could say that we have successfully over the years retained a lot of growth potential in the USA on that particular segment.

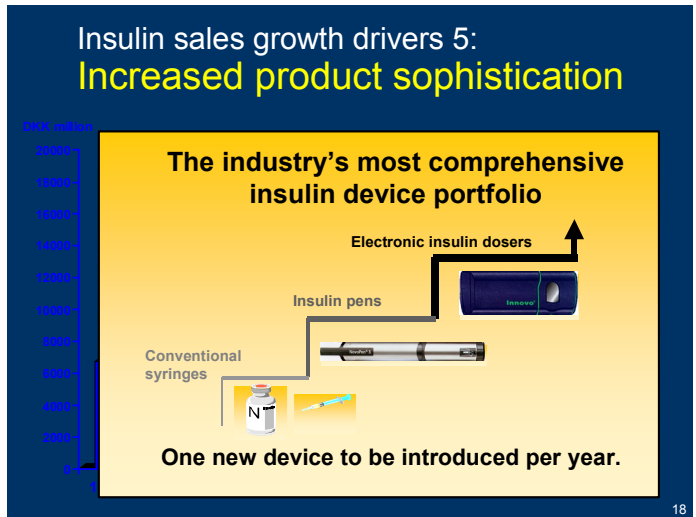


You will also notice that the 5.7% represents a change from the more traditional 2 percent plus

penetration in the US. We have seen a change in the market that has clearly moved from counter-detailing this kind of treatment to positively moving in this area. Lilly has developed devices and has started to recommend that pen treatment is certainly the way to go in order to intensify treatment and in order to increase the number of diabetics being treated with insulin.

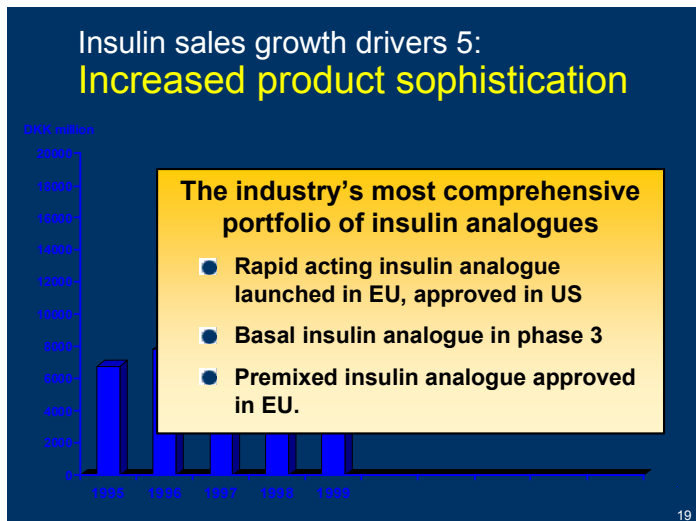
Most comprehensive device portfolio

We spearheaded the development of devices in Novo Nordisk. I believe we can say that we have been able, all the time, to develop new, more sophisticated, patient-friendly devices. Whenever competition has moved in we have been able to move ahead, mostly lately illustrated by the Innovo insulin doser, on the right-hand side of the panel, which is a concept for an insulin injection device featuring certain Smart features with electronics and so on, so that we can remember when we last took the dose and how large it was, etc.



Most comprehensive analogue portfolio

There is also another way of increasing the value of the market and that is by upgrading from human insulin to insulin analogues. As you know, an insulin analogue is human insulin where we have manipulated the sequence of amino acids and done a few other elegant things to the molecules so that the insulin starts behaving in a different way either by acting more quickly after injection, or by acting in a longer, flatter term and, of course, also in a combination of the two. We are developing the industries most comprehensive line for analogues.



The Competitive Scene

The competitive picture in new insulins is depicted on this slide. It shows that the three main suppliers in the world Novo, Lilly and Aventis have projects in this area. Eli Lilly was first off with a fast acting insulin analogue, followed by Novo Nordisk. We are rolling ours out in Europe and it is approved in the United States. Lilly was first with the premix rollout and we are following that now. We have approval in Europe for our premixed analogue.

In the category of long-acting analogues, Aventis has recently launched Lantus in Germany. We have told Aventis that they are using some of our intellectual property in their product and we have filed a lawsuit against them in line with our policy of vigorously protecting our intellectual property right. We will eventually have to go to court with Aventis to solve that dispute.

It is worth noting that Aventis does not have a premixed analogue project and it is also noticeable that, to the best of our knowledge, Lilly does not have a basal project either. So, the point we are making on this slide is that we will be the first company to have a comprehensive product line in the area of insulin analogues.

Pulmonary insulin taken by inhalation has caught the attention of the investment community and certainly also the medical community. We have elected a follower strategy. We looked at this many years ago and decided not to move on it because of bioavailability issues and so on, but when Pfizer/Aventis/Inhale announced their project, then we decided to enter this field as well thinking that if the concept works and there is a market for it, then we should certainly be part of it.

There are some issues related to bioavailability. Recent data talk about 10%, meaning that in order to achieve the same degree of control as if you inject insulin, you have to use ten times as much insulin. This will, of course, have consequences for pricing. Pfizer will first have to set the stage in this. How expensive and what kind of issues in connection with reimbursement etc. will not be known until they are out there. We will probably be 1.5 – 2 years behind them. Right now we believe we have an advantage on the device side. Our devices are breath-controlled so that we believe we can give a more precise inhalation, and our product appears to be less bulky than that of our competition but we will have to see how that pans out.

The competitive scene
Insulin sophistication

	NVO	LLY	AVE
Insulin analogues			
Rapid-acting	✓ Marketed	✓ Marketed	✓ Ph1/Ph2
Basal	✓ Ph3		✓ Marketed
Premix, protracted	✓ Approved	✓ Marketed	
Pulmonary insulin			
Human short-acting	✓ Ph2	✓ Ph2	✓ Ph3

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Insulin sales growth drivers 6: More aggressive US strategy

We launched Prandin™ in the US in collaboration with Schering-Plough. Prandin™ did not take-off to the heights that we had hoped and expected. In March this year we decided with Schering-Plough that the pie for a co-promotion arrangement with Schering-Plough was not big enough to share and therefore we separated amicably from Schering-Plough on this partnership strategy on co-promotion of Prandin™.

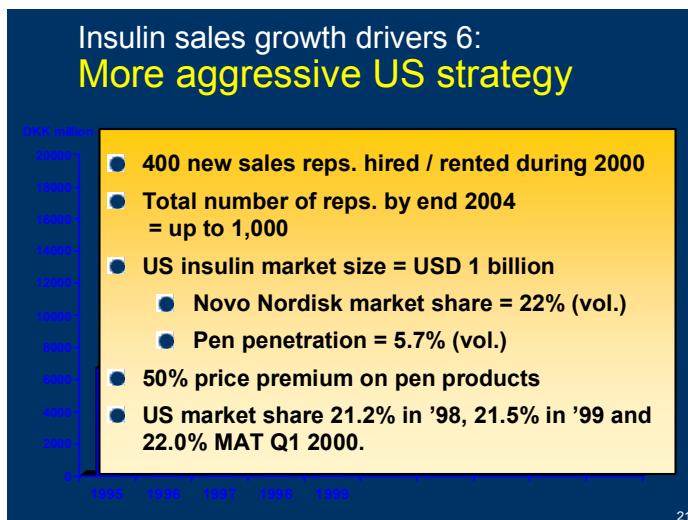
In Novo Nordisk, we changed our strategy following that from a partnership strategy to a go-alone strategy. We also changed from a Prandin™ first/insulin second strategy to an insulin first/Prandin™ second strategy, and we immediately started adding to our own salesforce. By the end of October, we will have 600 people in the field promoting insulin and devices to the US medical community as the first detail, and promoting Prandin™ second detail. We hope we will be able to keep the Prandin™ market share constant grow, going forward, the Prandin™ business in the USA with the market.

The upgrade of the US market from a vial market to a pen cartridge market is financially interesting because there is a 50% price premium when moving a patient from vials to cartridges used in connection with injection devices. We have seen our share in the US increase slightly over the last couple of years fuelled by among other things the Veteran Administration contract and by the increase in the pen usage in the USA.

We have announced that we are prepared to go to a 1000 rep strong sales force if that is what it takes to convey the new revised strategy that we have in the US in the appropriate way to the US medical community.

Health Care half year 2000

As I said Prandin™ was launched in 1998 in the US. It is an important product for us and it grew 59% in the first half compared to first half last year. In the US it has grown along with the market this year. We have introduced Prandin™/NovoNorm® in a number of European countries and we rolling it out as fast as we can get reimbursement fixed with the European authorities. It has been well received in those markets in Europe where it has been introduced.

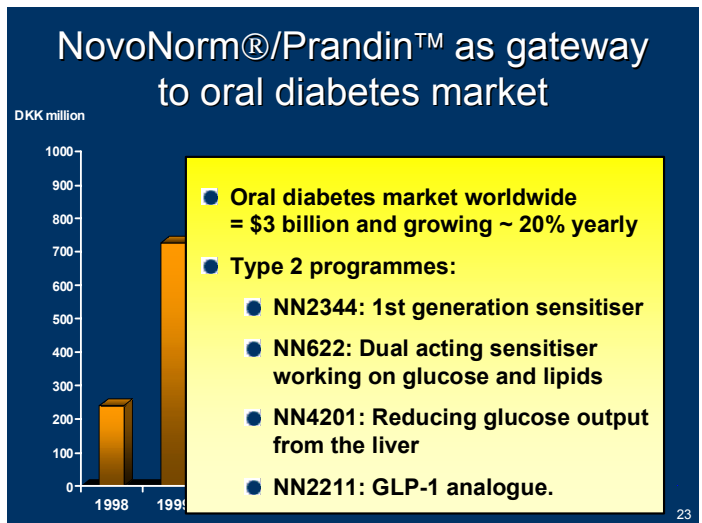


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NovoNorm®/Prandin™ as gateway to oral diabetes market

Prandin™/NovoNorm® is especially important for us because it is our first move into oral anti-diabetes and we have learnt a lot from it. We will take that lesson with us so that we can do a much better job on the exciting pipeline that we have following the current marketed products. This pipeline is something that Mads Krogsgaard will come and talk to you about in detail in a moment.



Diabetes Care growth drivers

This next slide summarises the reasons why we are confident when saying that we can grow our insulin business by 10% going forward. It highlights the diabetes care growth drivers as we see them through an increased number of diabetics worldwide; through a higher rate of diagnosis; by the fact that more people are recommended by the medical community to be treated with insulin; through more intensified therapy; by the increased device penetration; by a conversion of the market from human insulin to analogues and also by more aggressive US strategy. All of this is going to fuel a 10% growth of our insulin business – a two thirds of our current business going forward – and on top of that it is an exciting opportunity in the area of Type 2 and OAD products.

- Diabetes Care growth drivers**
- Increased number of diabetics
 - Higher diagnosis rate
 - More patients should use insulin
 - More intensive therapy
 - Increased device penetration
 - Conversion to analogues
 - More aggressive US strategy
 - New Type 2 products in pipeline.
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We now move into the area of research, and therefore it will only be appropriate for me to leave the floor to Mads Krogsgaard Thomsen.

Mads Krogsgaard Thomsen

Thank you very much Lars.

What I would like to do today is to talk very briefly about the diabetes pipeline and then I will get back to you on NovoSeven® research and development a little bit later.

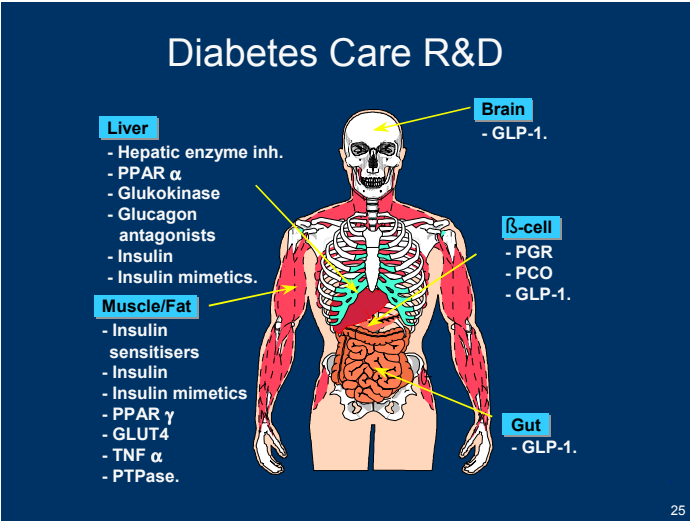
Diabetes Care R & D

First of all we have a vision at Novo, and it is a vision stating that at the end of the day we will defeat diabetes. What does it take to defeat diabetes? Well, it really takes the ability to restore into the body the amount of insulin producing cells that you have lost due to your diabetes. To that

end, we have a very long-term commitment, which is being conducted at a basic research institute called “Hagedorn” where we are looking into stem-cell biology relating to the fact that there is a huge donor problem. Even if you can transplant beta cells, pancreases etc, basically it is a therapy that can be offered only to one in 1000 patients. Henceforth we have a highly active programme within stem-cell biology and a huge network of collaborators around the world, so if anyone ends up curing diabetes in this way we hope that it will be Novo Nordisk.

However, if we look a little bit more into the medium and shorter term future, we are committed to both Type 1 and Type 2 diabetes. As you know, Type 1 diabetes is a disease where the immune system attacks and destroys the beta cells of the pancreas. To that end we have two programmes running that aim at halting the progression of the Type 1 disease, the autoimmune destruction of beta cells, and of these I will speak no more about.

The epidemic growth of diabetes is really due to the fact that Type 2 diabetes is taking off, as Lars has alluded to, at an epidemic rate. This is due to many factors we have previously talked about. We eat more, we exercise less, we live an urbanised life-style and we basically end up in a situation where many of us are slightly overweight, maybe even obese. This leads to insulin resistance and with insulin resistance you suddenly have a much bigger demand for insulin supply from the pancreas. When the pancreas – and only when the pancreas - fails to compensate by secreting more insulin do you develop Type 2 diabetes. On top of that you have to remember the fact that at night time the liver, which has a little power switch that is suppose to turn off its production of sugar when it is not needed by the



body such as when we sleep, is also defective in diabetes. We then have a multi-organ disease that really leads to a desire and need for a very multi-faceted approach towards the treatment of Type 2 diabetes. Our philosophy within Research & Development is basically one of saying we will often be the first to discover new agents but we must always be the first to learn about them. Hence forth, as Lars Rebien has alluded to, we must be out there with biotech academia and the network that we have built over the last 75 years. On top of that, five years ago management decided, very wisely I would say, to actually deploy all the resources that lay behind the development and discovery of drugs such as Seroxat/Paxil, Gabitril and so on into actually boosting efforts in Type 2 diabetes.

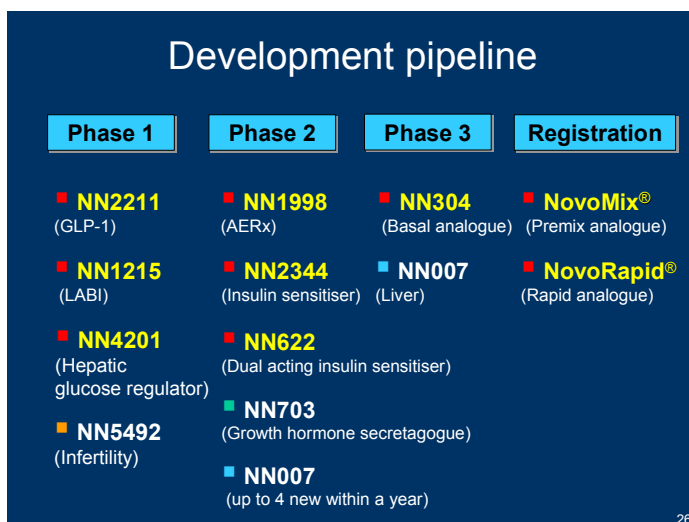
Development pipeline

Where do we stand five years later? Have we come anywhere? I believe we have. If you look at the development pipeline you can see there are a number of agents in different phases. Focus on the ones with the yellow numbers as they relate to diabetes. Last year, we told you that eight projects had progressed at least one phase in the development pipeline. If everything goes well, and we cross our fingers, we will reach a similar figure this year. Bearing in mind the size of the company, this is something that we believe we can be reasonably happy about.

Now, if we quickly run through the pipeline skipping the insulins because Lars Almbloom has already covered them. I will only focus on the left hand side of the picture – namely the one that depicts what we are doing in other anti-diabetics and non-insulin Type 2 drugs.

NN2211 is a stabilised version of the body's own insulin stimulating hormone (GLP-1), and the major aspects of this molecule is that it is glucose dependent, it reduces appetite and it has a multitude of beneficial effects in Type 2 diabetes. The problem has been one of chemical stability, i.e. making sure that you can dose it only once a day. We think we have cracked that nut and we are very happy with the project one now in phase one where the major competitors are Eli Lilly.

If we then look at the NN4201 where we have one competitor, namely Pfizer, it is a molecule that turns off the power switch of the liver reducing hepatic glucose output, meaning that fasting hypoglycaemia should be ameliorated in Type 2 diabetes. If we then look at Phase 2, the first



molecule, NN2344, is the insulin sensitiser which is a potent first generation glitazone which will, of course, be up to some hefty competition, whereas the second one will also be subject to competition. However, it has the added benefit of not being a glitazone, but more importantly it acts on two receptors, one that causes the insulin sensitising effect, but also another receptor known as PPAR alpha that mediates the lipid lowering effect that is so much desired in diabetes, because we have elevation of what is known as triglycerides, free fatty acids, much to the same extent as we have elevation of blood glucose.

That is what I really wanted to say in the area of diabetes but, before I hand over to Lars again, I would like just to say that we really believe that we can bridge the gap between the phases where behavioural modification, diet and exercise can do the trick and that point in time where you really need the insulin portfolio. Certainly we will need much more insulin in the future, but the oral anti-diabetic market is also growing at a rapid rate.

Lars Almbom Jørgensen

Thank you, Professor.

NovoSeven®

From an interesting exciting diabetes care business with an exciting pipeline, let us move to another exciting area called NovoSeven®. As you know NovoSeven® was developed for a small sub-segment of the haemophilia community that suffers from antibodies to the treatment and therefore they need something else; they need NovoSeven®. We have introduced this product successfully in all parts of the world and are now ready with a new expansion strategy that we are here to share with you.

NovoSeven® strategy

We have decided to attempt to develop NovoSeven® to become the first general haemostatic agent, thus taking NovoSeven® and broadening it into other areas where we expect NovoSeven® can help meet some major medical needs. We will do that by developing a range of new clinical indications, new products and new formulations. That will require an expansion of production capacity and also sales and marketing efforts. Please note that in this strategy we will keep the price as it is and we will not attempt to increase it beyond where it is at the moment. As soon as we are able to get going with it, we will start up a series of Phase 2 trials in order to build that business going forward.



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NovoSeven® strategy

- Develop NovoSeven® to become the first general haemostatic agent
- Develop a range of new clinical indications, new products and new formulations
- Expansion of production and sales force capacity
- Price per mg to be kept unchanged
- Clinical Phase 2 trials on up to four new indications will be initiated within the next year.

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Health Care half year 2000 – Turnover by therapy

As I said I wanted to return to the NovoSeven® sales in the first half of 2000 compared to the first half last year. The 84% growth rate is not a growth rate that we expect to continue sustaining going forward. It worth noticing here that we are comparing a first half 1999 where we did not introduce NovoSeven® in the US until April so we do not have a full first half 1999 in the US to compare with. It is also worth noticing that we launched in Japan in second quarter of 2000.

DKK million	2000	1999	% of total	% chg.
Insulin and devices etc.	6,321	5,217	65%	21%
NovoNorm®/Prandin™	513	323	5%	59%
Diabetes Care, Total	6,834	5,540	70%	23%
NovoSeven®	1,034	561	11%	84%
Growth Disorders	952	795	10%	20%
HRT	603	556	6%	8%
Other	246	222	3%	11%
Health Care, Total	9,669	7,674	100%	26%

NovoSeven® sales growth outlook

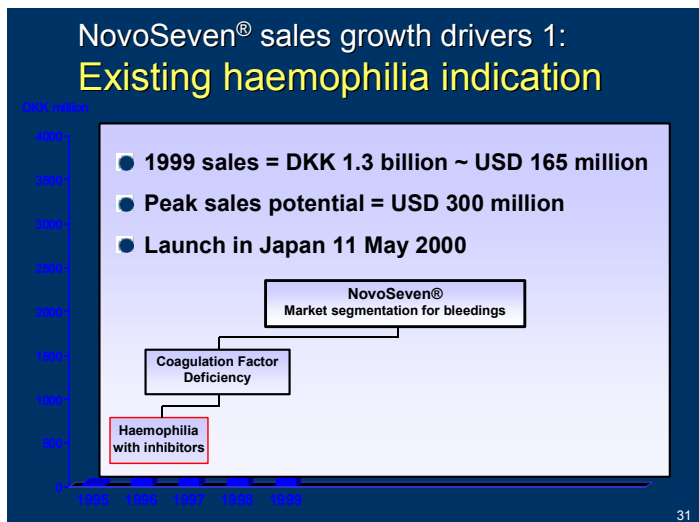
Historically it looks like this bar chart and you can then ask what are the growth drivers in NovoSeven® going forward?



NovoSeven® sales growth drivers 1: Existing haemophilia indication

First of all, we have increased our peak sales expectations on the existing indication for NovoSeven® in the haemophilia indication from around \$250 million to \$300 million. Last year we sold NovoSeven® to the tune of \$165 million, so there is still some room left for growth within this indication. We have now launched NovoSeven® in Japan. The launch has been successful and the product has been well received.

There are some other opportunities going forward. We are in clinical trials with a liver indication but now we are moving into an area beyond the indications approved, and therefore it is beyond my jurisdiction to speak about that so I will ask Professor Krogsgaard to come and share that with you, together with the other programmes that we are initiating on NovoSeven®.



NovoSeven® sales growth drivers 2: Liver indication in Phase 3

Mads Krosgaard Thomsen:

Thank you Lars. You are so modest today and I do not know quite why! Basically, Lars has alluded to the fact that we will try to make NovoSeven® the first and only universal haemostatic agent. What do I mean by that?

A universal haemostatic agent is a compound that will do the trick and stop the bleeding episode regardless of whether you have a defect in your coagulation system, in your platelet system, or are a healthy person like most of us around the table. It is basically something that in severe life or limb-threatening bleeding episodes is able to cause clot formation and hence haemostatis.

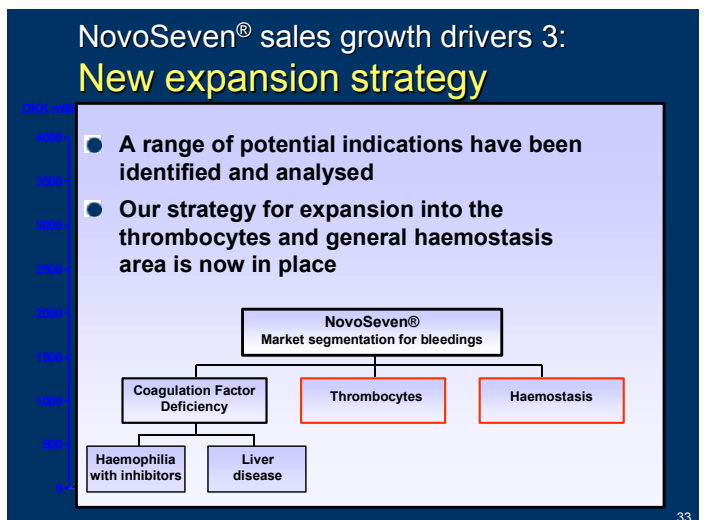
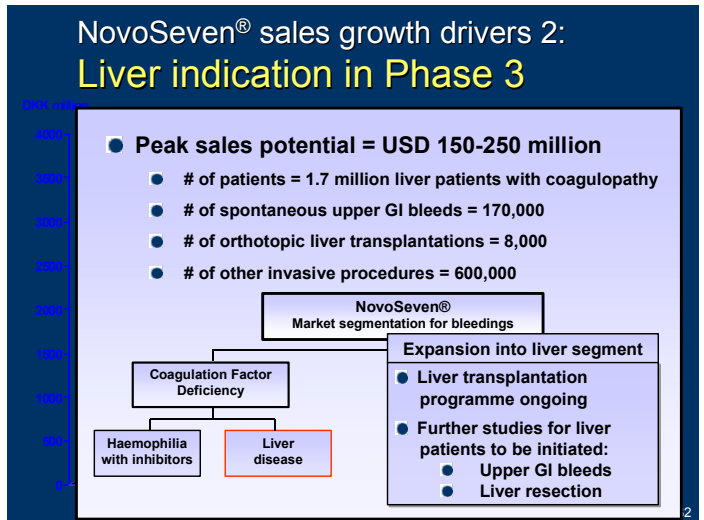
What happens during a bleeding episode is that when a vessel ruptures you have exposure of what is known as tissue factor and this is the receptor for Factor VII. This means that NovoSeven® will only bind to its receptor tissue factor at the site of the injury, at the site of the bleeding and nowhere else in the body. This is what makes NovoSeven® so unique.

The first new indication we plan to expand into is liver disease. The liver is a factory of clotting factor synthesis. During cirrhosis – be it from hepatitis, alcoholism or other reasons – this factory is defective and you may experience coagulation problems. We are running trials in the liver transplantation area where we believe we can significantly reduce the need for blood transfusion. We are also doing further studies in other areas such as gastro-intestinal bleeding, particularly in the upper part of the GI track together with partial resection of the liver due to malignancies, or other reasons.

NovoSeven® sales growth drivers 3: New expansion strategy

As I mentioned, we have decided to embark upon a strategy of moving outside of coagulation factor disturbances. This includes platelet disorder, either in the form of reduced count or defective function of the platelets, and also general haemostatis in normal human beings where their defences against bleeding have become overwhelmed.

To that end, I will mention a couple of things that are important to bear in mind. First of all regarding prices: You might argue that it is a relatively high priced drug for haemophilia where we are talking about chronic, progressive, life-long treatment.



The new indications, however, are probably, in most instances, going to be acute one-off treatments where you use one or two doses of Factor VII. What makes it attractive to us is the fact that the treatment modalities that are present out there either do not exist, or involve hospitalisation in intensive care units, the price of which per 24 hours is probably more or less equivalent to the full treatment cost of Factor VII. On top of that, we have a lot of anecdotal evidence, pharmacological studies and case stories that substantiate or at least give us a good gut feeling that in some of these indications we will indeed end up with clinical proof of concept. However, as you know drug development is a risky business and this means that you cannot anticipate a 100% hit rate in an area such as this.

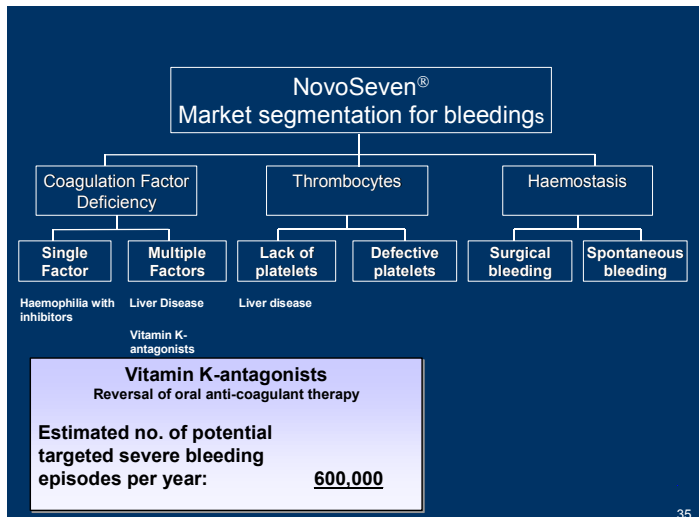
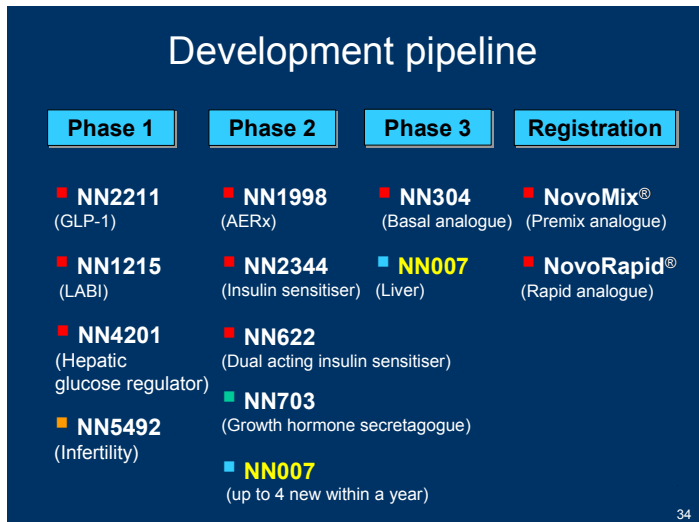
Development pipeline

What you should look at here is Phase 2 where it says that for NovoSeven® up to 4 new indications will be started up over the next year. The trials will have to include dose finding. We have selected these 4 diseases among 40 different indications and have deselected the ones where we thought that the cost/risk benefit ratio might not be suggestive of regulatory approvability, nonetheless we will of course look very distinctly into the safety profile of the agent in the chosen indications. They will be prospective Phase 2 trials, approximately 200 patients per trial, and they will be completed, let us say, each within a year and a half after initiation.

After that, what happens? You either go for a Phase 3 trial to aim at regulatory approval if your data is really good. You might have less strong data meaning that you will go for a publication strategy, getting peer reviewed articles, etc., or theoretically you might get approval based on one very strong pivotal study if the data is truly remarkable. This happens, however, rather rarely.

NovoSeven® – Vitamin K antagonists

Vitamin K antagonists is the area of blood thinning medicine. You might have heard of Warfarin and coumarins. These are agents that you have to take lifelong if you are prone to thrombosis, bleeding from the veins, or have problems with your heart. This is an area that has been growing over the years, and there is no real antidote to these agents. You can give Vitamin K to the Vitamin K-antagonists treated anti-coagulated patients, but it takes at least 6, 12, 24 hours to kick in, and if you have a serious, life-threatening bleeding episode, this is far too long.



What we are aiming at is an acute antidote, an acute reversal of the anti-coagulated state, either because the patient is bleeding overtly, or because something else has happened, namely that you need acute surgery for completely different reasons, and the doctor does not dare to put his knife into your body because he knows that you are anti-coagulated and at risk of severe bleeding, and hence has to postpone the surgery.

These are the two areas that total approximately 600,000 target bleeding episodes. This does not mean to say that Novo Nordisk would treat each and everyone of those, of course.

NovoSeven® – Bone Marrow Transplantation

Moving into the area of platelet disorder or “thrombocytes”.

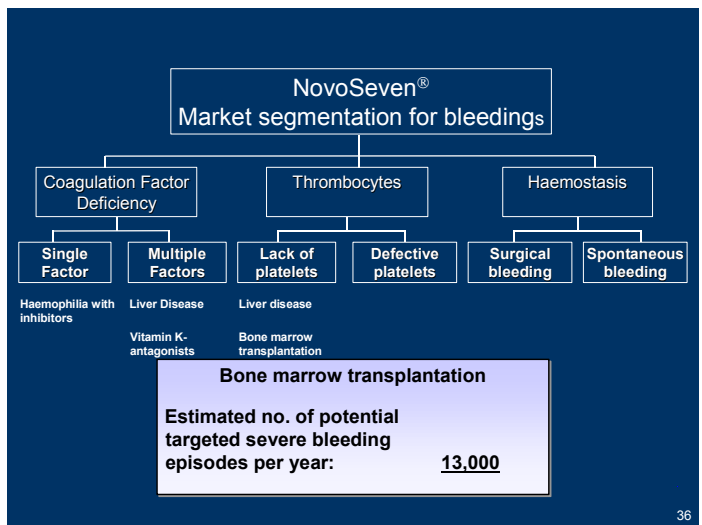
When a patient is undergoing bone marrow transplantation his red blood cells, white blood cells and platelets are wiped out. You can give such patients Epogen and Nupogen, but apart from platelet transfusions, there is nothing to substitute for the platelets, which is highly unsatisfactory in a situation where the patient is immuno-compromised, which means they carry an enhanced risk of viral translation by plasma products etc.

This is a small area, but well defined area that we are looking at as strategic entry into the platform of platelet-related bleeding disturbances.

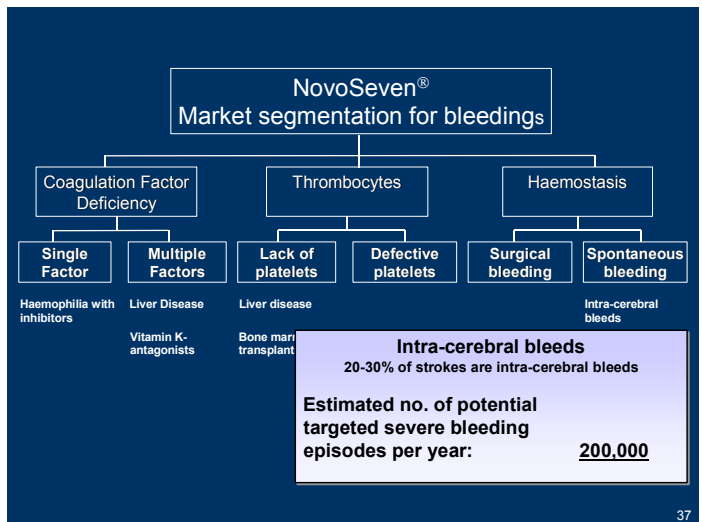
NovoSeven® – Intra-cerebral bleedings

Finally, I will highlight two indications within the area of people with normal haemostatic systems, general haemostasis. The first one relates to the fact that from our haemophilia programme we have seen a great number of patients who have had a bleeding of the brain, so-called intra-cerebral haemorrhage. They constitute about one-quarter of the strokes that occur in the world. That means that you have uncontrollable bleeding in the brain with no treatment modality available, apart from surgery, and what we think based on the high success rate we have had in this indication within haemophiliacs is that a similar situation might pertain to the non-haemophiliacs.

The two scenarios where this becomes exciting or life-saving is first, when you come to the hospital, you are diagnosed as having a stroke related to bleeding, and progression continues after admission to the neuro-surgical ward. In this scenario, halting or arresting the progression of the bleeding episode would be life-saving or at least quality of life-saving to the patient. The other scenario is a haematoma where once you



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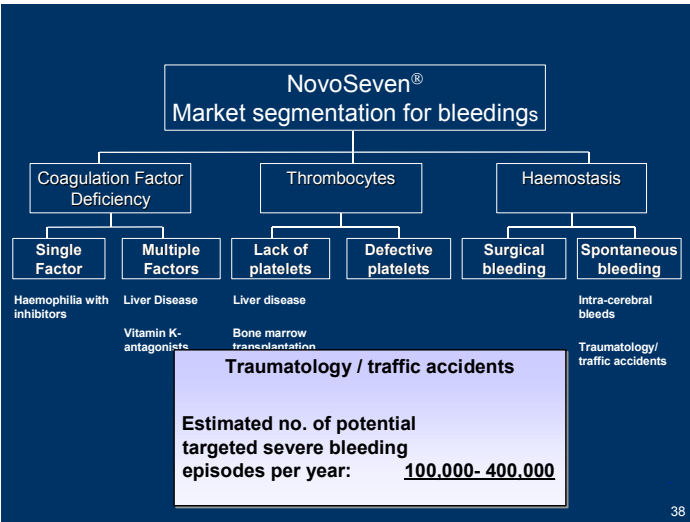
have a haematoma of the brain, the surgeon is very often scared to take it out surgically because there is a huge risk of re-bleeding in the same area. Henceforth, prophylaxis against re-bleeding could also be interesting or life-saving in this condition.

NovoSeven® – Traumatology

Finally, traumatology is a huge area. We have anecdotes as you might have heard and read and at least heard us talk about of effects in severely traumatised patients who are bleeding very severely in spite of a normal coagulation system, and at present there is no treatment available. You give them salt water and put your thumb into the blood vessel to try to stop the bleeding. However, if the bleeding is in the abdomen or lungs or elsewhere, this is not a viable option and after this, there is no treatment.

Logistically, this is the most difficult trial to do, as you imagine, trying to do studies in traffic accidents, but it is also an area of huge unmet need.

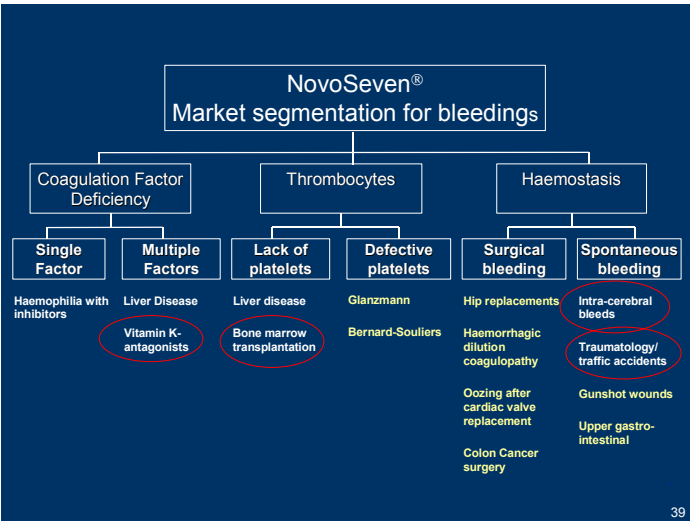
These are the four indications we are pursuing currently in Phase 2 trials, but where does that take us in the longer term future?



NovoSeven® – Market segmentations for bleedings

This is my final slide before handing over to Jesper. It summarises (red ovals) the four areas where we are now moving into Phase 2. It also highlights that if our ambition of having the universal haemostatic agent is to come to fruition at the end of the day, then we truly have to continue developing new indications of an exciting nature, realising that we have already been able to rewrite the haematology textbooks over the last decade by a new understanding of what clotting is all about, namely tissue factor, etc. Basically, we believe there is hope that we might also rewrite other chapters in other textbooks, but only the future based on the outcomes of these trials will be able to tell us to which extent that will occur.

With that, I will hand you over to our CFO, Jesper Brandgaard.

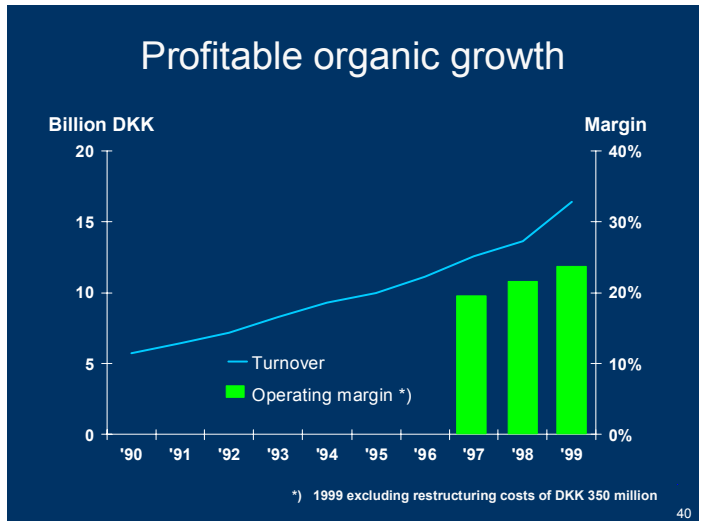


Jesper Brandgaard

Now to something a bit different, moving to the numbers.

Profitable organic growth

Lars Alblom referred to the fact that we expected 10% growth from insulin. When we look back the last ten years, that 10% seems meaningful. The compounded annual growth rate for Novo Nordisk has been 12.4% over the last ten years, growth moving between 8-20%. In connection with the demerger, we will make available detailed segmented numbers for the last three years. As you can see, our margin has been growing significantly. I should, however, caution you a little. You should not expect margins to continue to increase at the same speed. We will probably continue to invest in R&D, like the NovoSeven® indications we have which will take some growth away from the operating margin growth.



Financial Results – Health Care

If we can move to the annual results for the health care business for the last three years. From 1998 to 1999 we saw a growth in our turnover of some 20%. 5% point of that was currency impact, mainly from the Japanese yen. Changes in the exchange rate of the Japanese yen has had a significant impact on Novo Nordisk health care, and on an annual basis you should expect a 5% point movement in the Japanese yen will improve Novo Nordisk operating profit by DKK 110m.

Secondly, our operating profit grew by 20%. The key drivers of our operating profit have been the growth of sales in diabetes care and NovoSeven® along with the currency effects. As a consequence, our EBITDA is growing from 26% to 29% as a percentage of sales from 1998 to 1999.

Financial results
Health Care

DKK million	1999	1998	1997	% chg. 1998-99
Net turnover	16,423	13,647	12,585	+20%
Operating profit % of sales	3,527 21.5%	2,933 21.5%	2,440 19.4%	+20%
Operating profit adjusted *) % of sales	3,877 23.6%	2,933 21.5%	2,440 19.4%	+32%
EBITDA adjusted *) % of sales	4,820 29.3%	3,919 28.7%	3,315 26.3%	+23%

*) 1999 excluding restructuring costs of DKK 350 million

Financial results first half year

Moving to the half year results, we have had a very positive growth in our turnover the first half of this year of 26%. We expected this to be *annus horribilis* for Novo Nordisk. Just over a year ago, we thought it would be very difficult for Novo Nordisk to report single digit growth. This is the year when DKK 700 million Seroxat royalties for Novo Nordisk fell away, and hence we are proud to present a result where our operating profit has been growing by 36%.

The result reflects that we have had a strong growth in turnover of 26%, and that we have seen a strong growth in NovoSeven® sales, a weak euro and also having significant one-off effects

Financial results first half year
Health Care

DKK million	2000	1999	% chg.
Net turnover	9,669	7,674	+26%
Operating profit % of sales	2,271 23.5%	1,671 21.8%	+36%
EBITDA % of sales	2,784 28.8%	2,137 27.8%	+30%

coming from a settlement with Eli Lilly, and also coming from the out-licensing of our HRT portfolio in the US.

Balance Sheet

Moving on to the Balance Sheet. Detailed balance sheet numbers will be made available when we release the demerger document mid-October. Here are some key highlights. Note that our capital expenditure in percent of sales has come down to the level of 8%. Do not expect that to be the trend in the future. We have initiated a major investment in insulin production capacity. We will probably also initiate new investment in NovoSeven® production facilities, and hence you should expect our investment levels to creep up to a level just below 10% of sales.

Secondly, you should note that our production of insulin and devices are slightly more capital intensive than traditional pharmaceutical companies. Also you may want to note that in terms of outlook for Novo Nordisk, when we release the Q3 results, we will give you a specific outlook for each of the two business, Novo Nordisk and Novozymes. In connection with the Q2 release, we have noted that the total Novo Nordisk will grow operating profit by around 25% this year given three factors: 1) that currency stays at the level where they were in mid-August, and that is clearly the case today; 2) that the Novozymes sales recovery continues; and 3) that we do not see any temporary set-back from the change in our US distribution strategy as Lars Almbloom alluded to.

Those are the key factors for this year's forecast. The longer term forecast and the milestones which Lars Rebien alluded to will be released together with our annual report for 2000 in February. The financial milestones will have been approved by then by the new Board of Directors of Novo Nordisk which will be elected at the Extraordinary General Meeting on 13 November.

With those words on our financial numbers, I hand over to Kåre.

Kåre Schultz:

Thank you, Jesper.

As you have seen, we have a strong situation, and my colleagues have just explained that with the two key value drivers, the diabetes care business and NovoSeven®, we have a good position there.

As we mentioned in the beginning, we also have some secondary value drivers, ZymoGenetics,

DKK million	1999	1998	1997
Capital expenditures	1,362	1,767	1,950
<i>% of sales</i>	<i>8.3%</i>	<i>12.9%</i>	<i>15.5%</i>
Fixed assets	10,284	9,870	9,244
<i>% of sales</i>	<i>62.6%</i>	<i>72.3%</i>	<i>73.4%</i>
Stocks and trade debtors	6,496	6,044	5,982
<i>% of sales</i>	<i>39.6%</i>	<i>44.3%</i>	<i>47.5%</i>

our HRT business and our human growth hormone business. I will briefly touch upon ZymoGenetics.

ZymoGenetics

As you are probably aware, ZymoGenetics is a genomics-based research company on the US West Coast. We have owned ZymoGenetics for a number of years, and about 300 people work there. ZymoGenetics have been very active in the process of utilising the whole project of mapping the human genome. We believe that based on our knowledge of therapeutic proteins and the fact that we have discovered and are producing more therapeutic proteins than probably any other pharmaceutical or biotech company, we have a good understanding of what part of the human genome codes are for plausible therapeutic proteins.

It is very important to understand that when you look at the drug candidates based on the human genome, you are searching a little in the dark, because you start by handling sequences that represent a code for something, and you do not know exactly what it is going to be used for.

We believe that we have been able to do a qualified guess on what could be useful. Based on this we estimate that ZymoGenetics was the first to file on approximately 15% of all US patents on genes that codes for "plausible protein therapeutics" filed in the period December 1993 to August 1998.

With this kind of discovery, you never know where it is going to end. Once you find out the biology of the therapeutic proteins, they could be within one therapeutic area, and you do not know that when you start. Therefore, it is likely that some of the most interesting drug candidates we are looking into will be in areas outside our core business areas. In realising this, and at the same time wanting to keep the upside of having relevant drug candidates coming out of ZymoGenetics that we can use to become eventually our second NovoSeven® biotech product, we have decided on a strategy where we will take other biotech investors into the ownership structure of ZymoGenetics. This will reduce our risk, but will of course also mean that we will have to share the rewards.

It will be some years before you see new drugs from ZymoGenetics coming to the market. This research is in the early phases, and if everything works out well, of course, it will be the plan to take the company public through an IPO, but it is too early to say right now when this will take place.

ZymoGenetics

- Approximately 275 people, hereof 200 scientists
- Using bio-informatics to discover novel gene sequences
- First to file on approx. 15% of US patents filed on "plausible protein therapeutics" from Dec. 1993 to Aug. 1998.
- Pipeline includes preclinical projects in the areas of immunology and oncology
- No current projects expected to reach market before 2007-2010
- Active dialog with accredited biotech investors is taking place.

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This was one of the secondary value drivers. There is something else that underpins our focus on shareholder value.

Triple Bottom Line

As I hope you have seen, we are very focused on creating shareholder value, but there are a few prerequisites which we are also keenly aware of. Two of these are mentioned here. One of them is based on the fact that being a pharmaceutical company, working with genetically modified organisms, it is extremely important that you have the trust of society so that you are allowed to run your research activities and you are allowed to run your manufacturing operations based on the trust that society has in you. Therefore, we are very active in the environmental area making sure that all our activities are environmentally sound and that all our activities are looked on positively by authorities worldwide.

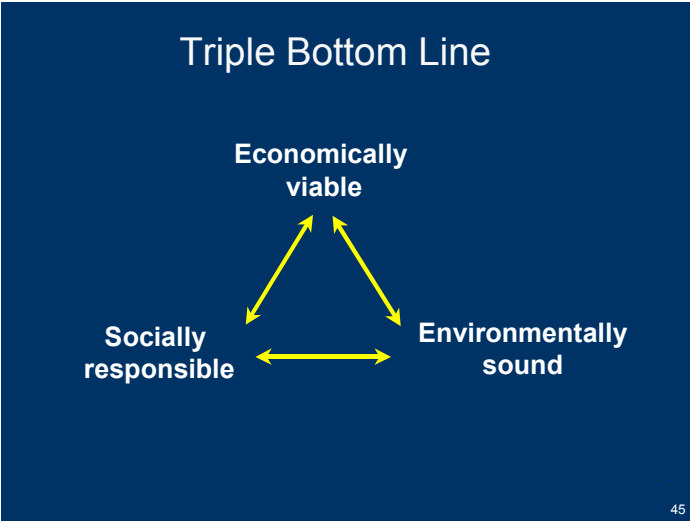
It is also very important for us to attract new talent. Discovery is done by people, and only if you get the brightest people into your company will you be able to generate a pipeline long term which will sustain the growth in shareholder value. Therefore, it is important for us to have a positive image, and we are very conscious about this and have many activities to ensure that society at large as well as young people have a positive opinion of our company.

Human Resources

Talking about people, it is also very important for us to have a strong corporate culture that drives performance. "Everything that is measured gets done" we say, and therefore we have very systematic targets for all our people. We also have a process whereby we remunerate people based on performance. This goes for the whole company, and in connection with the demerger, you will see some more aggressive option schemes that will further enhance this for management.

In terms of customer focus, we are in a situation where we identify with diabetics. We have been emphasising this this year by making sure that all our employees come face to face with a diabetic to understand their situation better, to understand their needs better, and to inspire the organisation to develop products and services that will enhance our position in the marketplace.

As you know, we are based in Denmark. Denmark is a tiny country, and we are acutely aware of this. Therefore, we are driving our



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- ### Human Resources
- Performance culture
 - Transparent recognition and incentive scheme
 - Performance linked stock option programme for >300 managers
 - Development plans and bonus linked appraisal systems for most employees
 - Preferred employer
 - Customer focus
 - All employees to meet a person with diabetes this year
 - Globalisation
 - Growth in number of employees mainly outside Denmark.

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research, production, sales and marketing activities towards a more global positioning where we are increasing our activities more outside Denmark than inside Denmark.

I will hand over now back to Lars Rebien who will conclude.

Lars Rebien Sørensen:

Thank you very much, Kåre. Ladies and gentlemen, we are getting near to the end of the presentations. I will just recap on some of the main statements that have been made.

**Global Niche Pharma company
with Biotech Expertise**

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Novo Nordisk – Key Drivers

We will remind you of the slide where we presented the main primary growth drivers which is the diabetes business with 10% growth coming from the insulin business, with an upside of an expansion strategy in the US, and entry into the Type 2 diabetes market with tablets; a strong short-term growth from the NovoSeven® business with potential expansion of indication into liver disease, and longer term, an option into a much more extended application of NovoSeven®. Also, there is very limited patent expiration for NovoSeven®. As you can see, we are protected for the next ten years for this product.

There is also a possibility of renewing our pipeline for the future based on human genomics and a financial upside coming from ZymoGenetics.

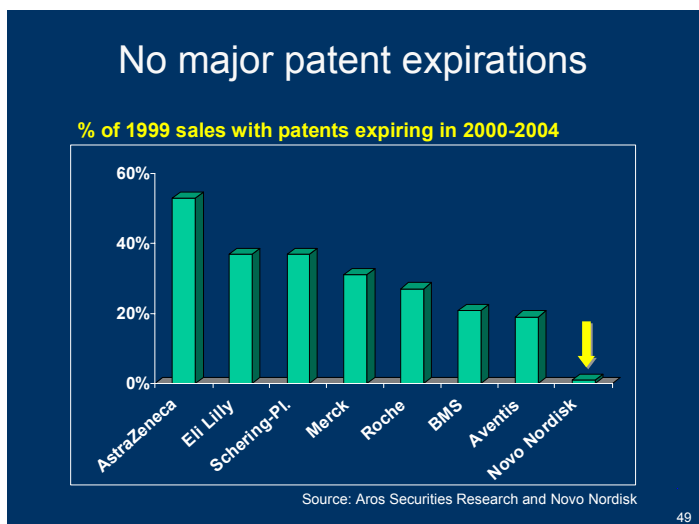
No major patent expirations

In a sense, you might say that Novo Nordisk has just passed our patent expiration. We have shown here the level of sales for selected companies that are exposed to patent expiration during the next three to four years. We had our year this year where our royalties from Seroxat/Paxil went off. We managed to create growth in other areas. Some of our colleagues are struggling with their issues as you can see, so I feel that this clearly demonstrates the possibility for us to develop strong and stable growth, and a growth which is based on very little risk on the top line as far as we can see.

Novo Nordisk – Key drivers

Primary growth drivers	Diabetes business	NovoSeven® business
	<ul style="list-style-type: none"> World leader 2/3 of business (insulin) growing >10% Steady growth for 76 years The most comprehensive insulin and insulin device portfolio in the industry – one new device per year Expansion strategy in the US Sensitiser and liver programmes NN2211 (GLP-1 analogue). 	<ul style="list-style-type: none"> Peak sales potential for current indication = USD 300 million Peak sales potential for liver indication (Phase 3) = USD 150 - 250 million Strategy for entry into the thrombocytes & general haemostasis areas Phase 2 studies on up to four new indications to be initiated Patent protection until 2007-11.
Secondary value drivers	<ul style="list-style-type: none"> ZymoGenetics Growth Disorders HRT 	

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Forward-looking statements

Having made forward-looking statements, it is only appropriate that I show you this last slide with which you are all familiar. If not, it is in your material.

I would like to close the presentation by stating that we may have anticipated most of your questions; we probably have not anticipated all of them. We would now like to open the session by taking questions should you have any.

Forward-looking statements

This presentation contains forward-looking statements as the term is defined in the US Private Securities Litigation Reform Act of 1995.

Such forward-looking statements are subject to risk and uncertainties that may cause actual results to differ materially from expectations, including unexpected developments in the international currency exchange and securities markets, government-mandated or market-driven price decreases for Novo Nordisk's products in the company's major markets and the introduction of competing products within Novo Nordisk's core businesses.

These and other risks and uncertainties, are further described in reports filed with the US Securities and Exchange Commission (SEC) by Novo Nordisk and readily available to the public, including the company's Form 20-F, which was filed on 2 May 2000.

In addition to the risk factors described in the company's Form 20-F, the economic situation in Asia, Russia and Latin America could have an adverse impact on unit sales and/or prices, including currency exchange rates, in 2000. The total group sales in Asia (excluding Japan), Russia and Latin America were approximately DKK 2 billion in 1999 corresponding to 10% of total group sales.

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