
Engineering for a healthier world
... please join us
nne pharmaplan®

HANS OLE VOIGT, Engineer, PhD.
CEO of NNE Pharmaplan since 1999.

If you want to make an impact on the future of this planet, you've come to the right industry.

If there is a higher meaning to what you do at work, everything else assumes greater meaning as well, and vice versa. Higher meaning is a powerful attraction for working on environmental, humanitarian and pharmaceutical issues.

THE EUROPEAN MEDICINE AGENCY, the US Food and Drug Administration, WHO and many other organisations are regulating the pharmaceutical industry for obvious reasons: mistakes can have severe – even fatal – consequences for patients.

NNE Pharmaplan is the leading engineering and consulting company for the pharmaceutical industry. That is a position we have earned. The industry knows that we care as much as they do about the end result of our joint efforts. We are dedicated to serving the worldwide pharma and biotech industries with engineering and consulting services. Our growth has stemmed from the pharmaceutical history of Novo Nordisk and Fresenius, and we are keeping our business focus fixed on serving the pharmaceutical companies all over the world – large, mid-sized and small - in their local or global needs.

The pharmaceutical industry is only 100 years old, but it has had a remarkable history. It has created major breakthroughs that have changed the lives of people everywhere in several very important areas, such as: penicillin's fight against infectious diseases, insulin's successful treatment of diabetes, monoclonal antibodies' fight against cancer – and more advancements and discoveries will surely follow.

Although it is ranked the most profitable industry on the Fortune 500, the profits are not earned by sitting back and counting patent income. The profits reflect a business founded on, and driven by, new ideas. The key words are Research & Development. On average, out of every 10,000 substances synthesised in laboratories, only one or two will pass all the experimental stages to become marketable medicines. In 2009, the cost of researching and developing a new chemical or biological entity was estimated at 1,000 million Euros. By the time a medical product is introduced on the market, an average of 12-13 years will have elapsed since the synthesis of the new substance.

This is not an industry for people who give up easily. However, it is probably the most rewarding industry with the greatest potential for satisfaction for anyone who wants to utilise their talents in work with a higher meaning.

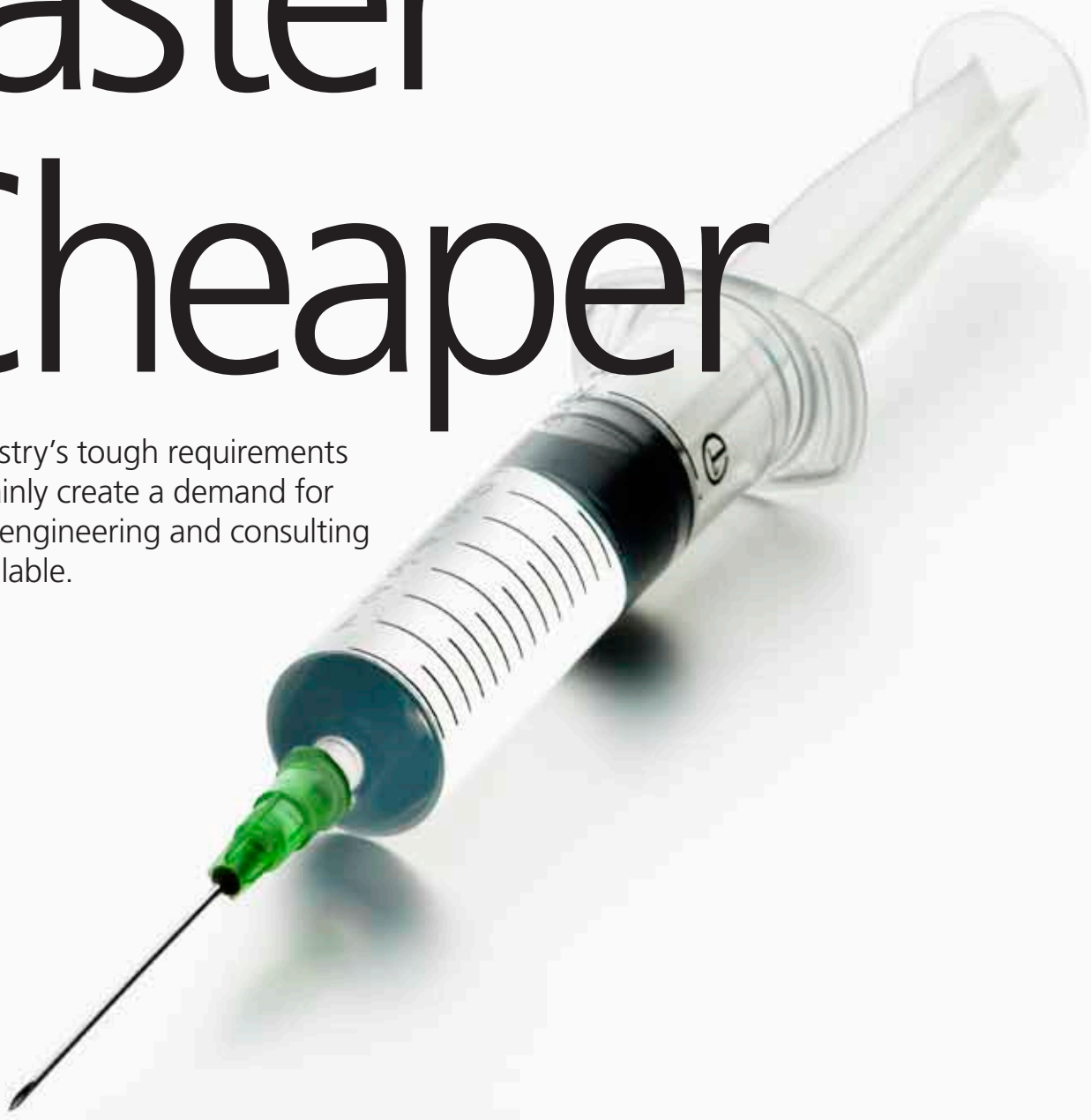
Needless to say, the rapid development of the industry that we serve with engineering and consulting calls for the equally rapid development of our company: a development that we hope you will want to be part of.

Welcome.

IN 2009, more than 3 million students worldwide earned a university degree in science or engineering.

Better Faster Cheaper

The industry's tough requirements will certainly create a demand for the best engineering and consulting skills available.



DEMAND. An ever-increasing demand for more efficient R&D facilities is ruling the pharmaceutical industry.

New research, as well as new challenges on human ageing, epidemics and economic conditions, are factors which are quickly transforming the pharmaceutical business. The world population is growing and ageing; new areas of medical needs are emerging; and the diseases from which people in developing countries suffer are increasingly like those that trouble people living in the developed world. The global population is projected to rise from 6.5 billion in 2005 to 7.6 billion in 2020. In short, the pharmaceutical industry has to improve its R&D and productivity if it is to meet the world's medical needs.

This is our challenging world.

At NNE Pharmaplan, we are close to 1,600 dedicated employees working in more than 25 offices to meet the many challenging demands of our complex industry. Our focus is fixed on global consulting and engineering with a strong local presence. We work across disciplines, projects and borders to strengthen unity and cooperation between our employees around the world which is crucial in enabling our organisation to capitalise on our unique combination of global knowledge and local presence: a combination that gives us an incomparable position in our industry.

All employees take part in our performance and development process to establish relevant goals and development plans for their future roles and to ensure that they have the necessary competencies and practical experience.

A large variety of in-house training courses are available to all of our employees in the company's academy, supplemented by international courses which seek to inspire new concepts. Employee development is also facilitated by team training and by sharing new ideas and lessons learned across the organisation.

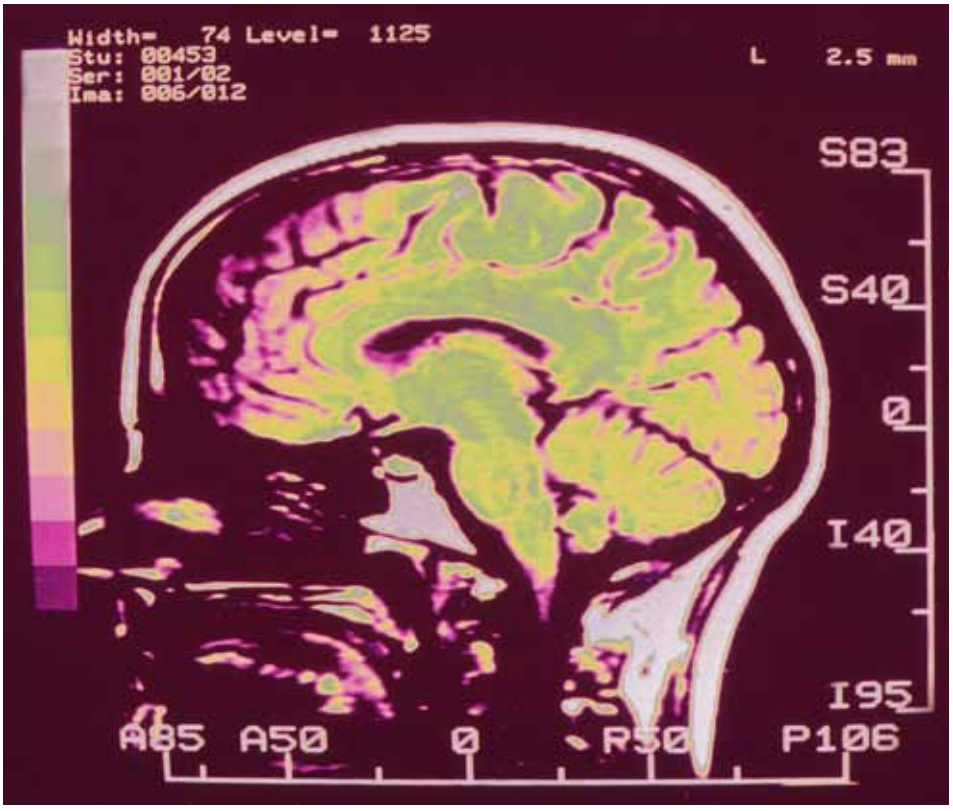
The industry's need for better, faster and cheaper production will certainly create a demand for the best engineering and consulting skills available.

We aim to attract the very best people in our industry, but we also strive to have a high score for job satisfaction and loyalty. So far, we have accomplished both.

Homo (sick) Sapiens

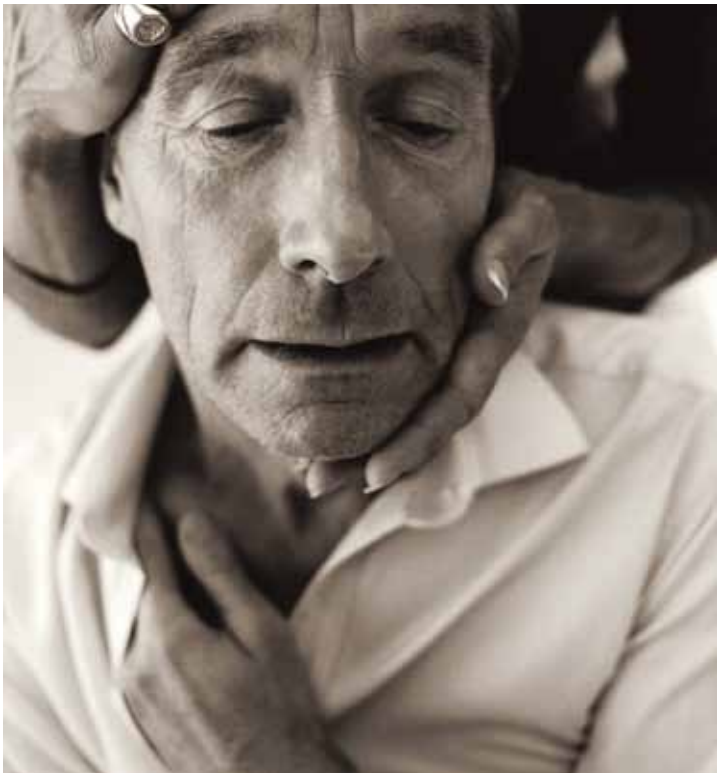
The five biggest challenges for the human race and the pharmaceutical industry.

HIV/AIDS. AIDS was reported for the first time almost 30 years ago. Since then, more than 60 million have been infected and more than 25 million have died of the disease. AIDS is an international problem, but the problem is at its worst in sub-Saharan Africa where AIDS is inflicting a catastrophe of epic proportions on an already poverty-stricken and weakened population. The disease is killing more than 3,000 Africans every day, leaving millions of children orphaned and spawning a region where the life expectancy hovers around 40 years. Globally, AIDS causes between 2 and 3 million deaths a year.

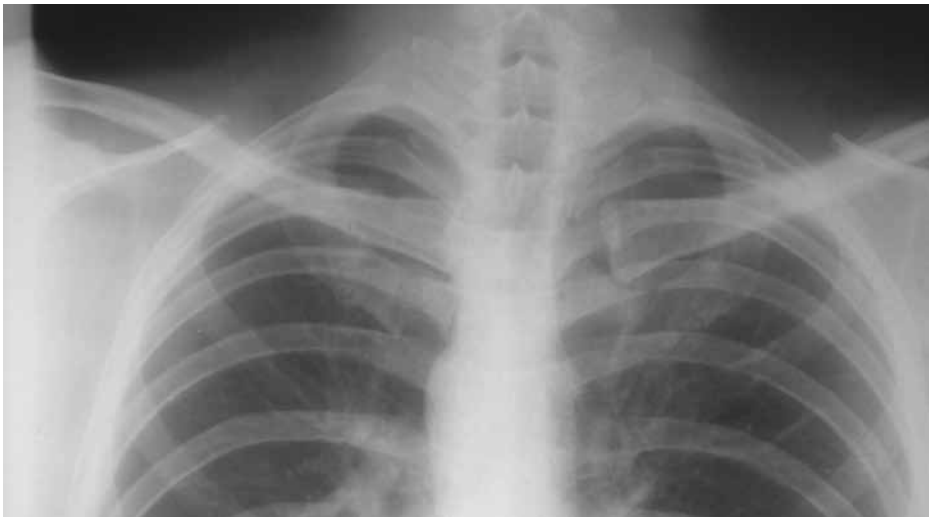


CEREBROVASCULAR DISEASE. Cerebrovascular disease includes a number of brain dysfunctions caused by diseases in the blood vessels supplying blood flow to the brain. The most common and serious symptom is a stroke, which often causes permanent brain damage or death. Hypertension, which is often referred to as "high blood pressure", is the most common origin of the disease. Cerebrovascular disease can permanently cause blood vessels to narrow, stiffen and become deformed. More than 5 million people die each year as a result of cerebrovascular disease.

ISCHAEMIC HEART DISEASE. Ischaemic heart disease arises when blood supply to the heart muscle is reduced. It usually happens when fatty materials like cholesterol thicken the artery walls, preventing blood from flowing freely. Symptoms include chest pain, but for more than 50% of occurrences, the first symptom is a heart attack or sudden cardiac death. Worldwide, more than 7 million people die from ischaemic heart disease annually.



MALARIA. Malaria is caused by a parasite that is spread through mosquito bites. The parasite is transferred to the mosquito when it sucks blood from an infected person. The parasite then lives within the mosquito and can be transmitted to other persons. After living in the infected person's liver for between two weeks to two months or, in rare cases, even years, the parasites begin multiplying within the red blood cells, which causes fever and headaches. In some cases this is followed by coma and death. Every year 350-500 million persons are infected with malaria and more than one million die. Most of the victims are children in sub-Saharan Africa.



LOWER RESPIRATORY INFECTIONS. Lower respiratory infections include pneumonia and acute bronchitis, as well as other infections. The symptoms are shortness of breath, fever and coughing. Most infections will elapse without treatment, but in some cases antibiotics are necessary. Even though the treatment for such infections is simple, these diseases still cause approximately 4 million deaths a year with the greatest number of fatalities among children in developing countries under the age of 5. Tuberculosis and whooping cough are also lower respiratory infections, but they are counted as a separate category by the World Health Organisation.

Before you join us, we must warn you: we are extremely single-minded.

We were born and raised in the pharmaceutical industry. Ever since Novo Nordisk, Fresenius and our other ancestors started working with pharmaceuticals decades ago, we started building our competencies for providing engineering and consulting services.

OUR HISTORY dates back more than 80 years, and we are still in the same business: consulting services and professional engineering for pharma and biotech projects.

NNE Pharmaplan has been engaged in professional engineering and consulting services for customers all over the world for several decades. In fact, we are the largest international engineering and consulting company that specialises in pharma and biotech. Our competencies span all technical disciplines applying to engineering, construction, validation, start-up, optimisation and reconstruction of facilities for product development and production plants, pilot plants and laboratories. We work in a flexible and integrated organisation where engineers, architects and pharmacists work closely together and continuously share their mutual experience and expertise. Most international companies make the same claim, but we back up our conviction about the importance of cooperation with a series of global intranet tools, such as our very own Facebook and Wikipedia sites which we have respectively named Ourbook and Ourwiki. At the same time, we work with Ourmodel, a global engineering model that ensures that projects are conducted in the most efficient way. To illustrate what we are about, take a look at what we have been doing for the last ten years:

2001 NNE Pharmaplan wins an architectural competition, together with Carl Bro A/S and KHR AS Arkitekter, for construction of a new bio centre in Universitetsparken in Copenhagen, Denmark.

2002 Hillerød, Denmark. Completion of a new, complete biotechnological plant for production of the haemophilia medicine FVII for Novo Nordisk A/S. A fast-track engineering project completed in only 18 months.

2003 United Arab Emirates. The production facility for auto-disabled syringes, designed by NNE Pharmaplan, is completed through a

PRONOVA. Pronova has worked with NNE Pharmaplan when the existing plant in Sandefjord, Norway, was expanded and upgraded and when the new facility in Denmark was established in 2009.

WHO-supported project. NNE Pharmaplan teamed up with its client MEDECO, transferring syringe knowledge to the production company and subsequently running a turnkey project to design and build the facility. In 2004, MEDECO started delivery of auto-disabled syringes to UNICEF.

2004 Kalundborg, Denmark. The hand-over process for a new Novo Nordisk plant for purification of insulin analogues is formally completed. The 7,000 m² greenfield facility was completed in only 14½ months, using pre-assembled units and a completely modularised automation system that was built and tested off-site to ensure fast-track construction.

2005 Inno Biologics sets out to build Malaysia's first GMP-compliant biotech facility. Within a short time frame NNE Pharmaplan delivers a flexible, bio safety level 2 turnkey facility that meets both European and US-FDA GMP regulations. The facility has taken Inno Biologics to the forefront of the country's biotech sector.

2006 A production facility that makes enzymes is inaugurated in Hongda, 80 kilometres northwest of Shanghai. The facility is built by NNE Pharmaplan for Novozymes and Suzhou Hongda Enzyme Company.

2007 NNE Pharmaplan completes a facilities upgrade for Pronova Biopharma in Norway. The project is carried out with minimum downtime and results in a GMP-compliant production plant with doubled capacity and fast-track resumption of production.

In March, NNE Pharmaplan is officially launched as a joint company following Danish NNE's acquisition of the German engineering company Pharmaplan GmbH.

2008 NNE Pharmaplan designs and constructs a facility for the production of high-potent active pharmaceutical ingredients by chemical synthesis for Synthon in the Czech Republic.

2009 Germany. Hameln pharma's sterile production plant, designed by NNE Pharmaplan, is awarded the prestigious international ISPE Facility of the Year Award in the operational excellence category.

NOVO NORDISK PenFill production facility in China.

2010 The Danish pharmaceutical company Novo Nordisk is a leading manufacturer of medication for people with diabetes 2. They are building a new production facility 50 km outside of Tianjin in China to meet the increasing demand for insulin pens. The product itself has already been developed, and the technologies used for production facilities already exist in other factories around the world. Still, building a new production facility even larger than existing ones is an enormous challenge.

The facility in Tianjin is the biggest Novo Nordisk facility outside of Denmark, spanning an area equivalent to 8 football fields. The total cost of the factory will be 282 million Euro, which is more that the cost of the Olympic Stadium in Beijing. The factory is owned and will be run by Novo Nordisk, and NNE Pharmaplan is strongly involved in all the engineering disciplines.

The factory will be fully operational in 2011, and, by 2016, the production of 240 million PenFills will help millions of people cope with diabetes on an everyday basis. The factory in Tianjin will be a remarkable achievement, combining the best medication and cutting edge production technology to create the world's biggest and most efficient diabetes medication production facility.

AMIR TAFRESHI, Project Manager for NNE Pharmaplan, Novo Nordisk PenFill production facility, Tianjin, China. Amir holds a BSc in Electro Engineering.

LOOK AT OUR WORLD. NNE Pharmaplan is headquartered in Denmark. We have offices and project references throughout the world. In short, to work with us you won't have to give up your national identity, but you will get a chance to adopt a much more international attitude in the best sense of the word "international".

Please visit nnepharmaplan.com for more information

INDONESIA. Japanese Encephalitis affects thousands of persons each year causing death or disability. Especially among children.

INDIA. HLL Lifecare is building a world class vaccine production facility to combat world health issues including Japanese Encephalitis.

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