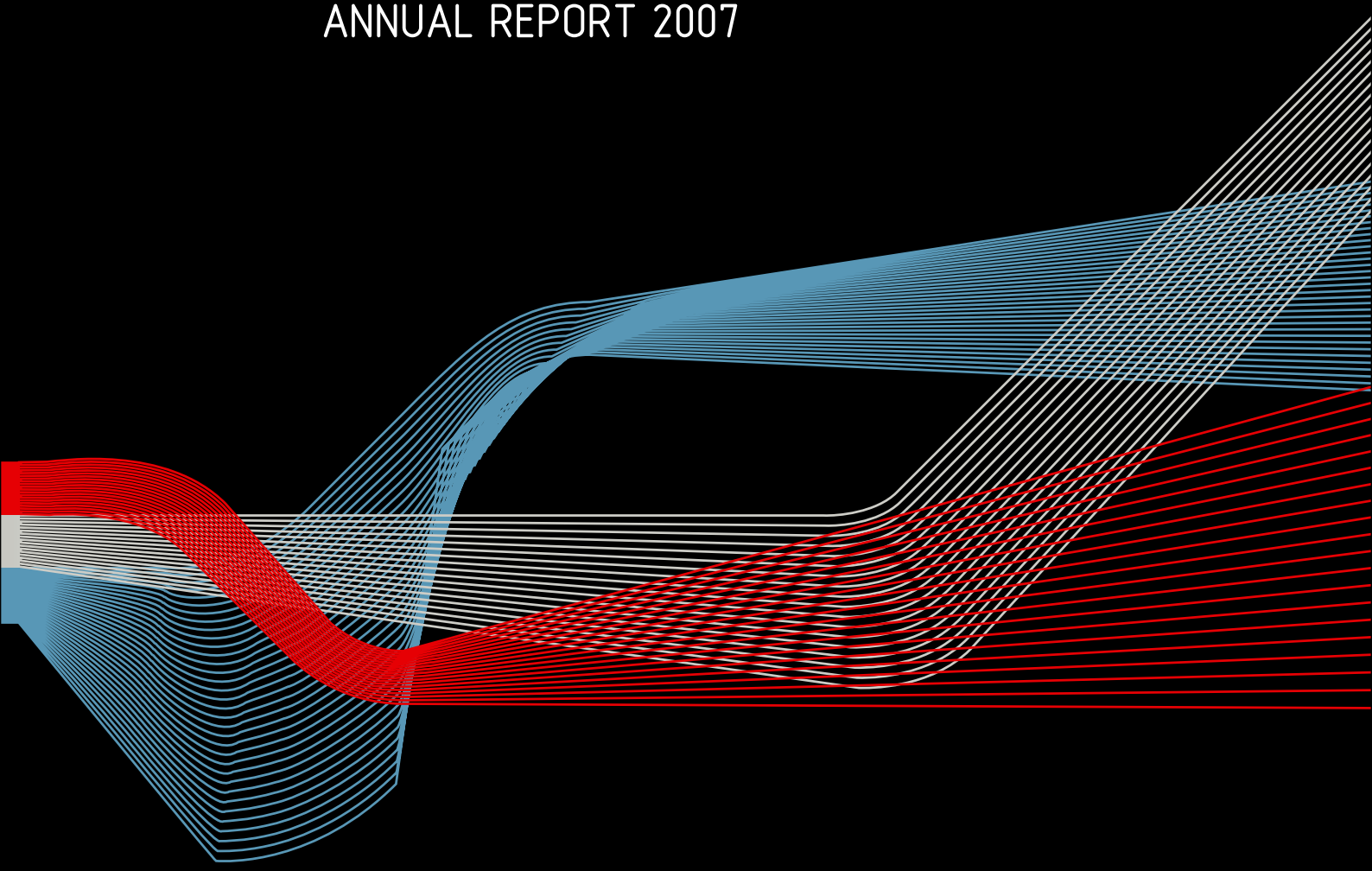
DANISH
TECHNOLOGICAL
INSTITUTE

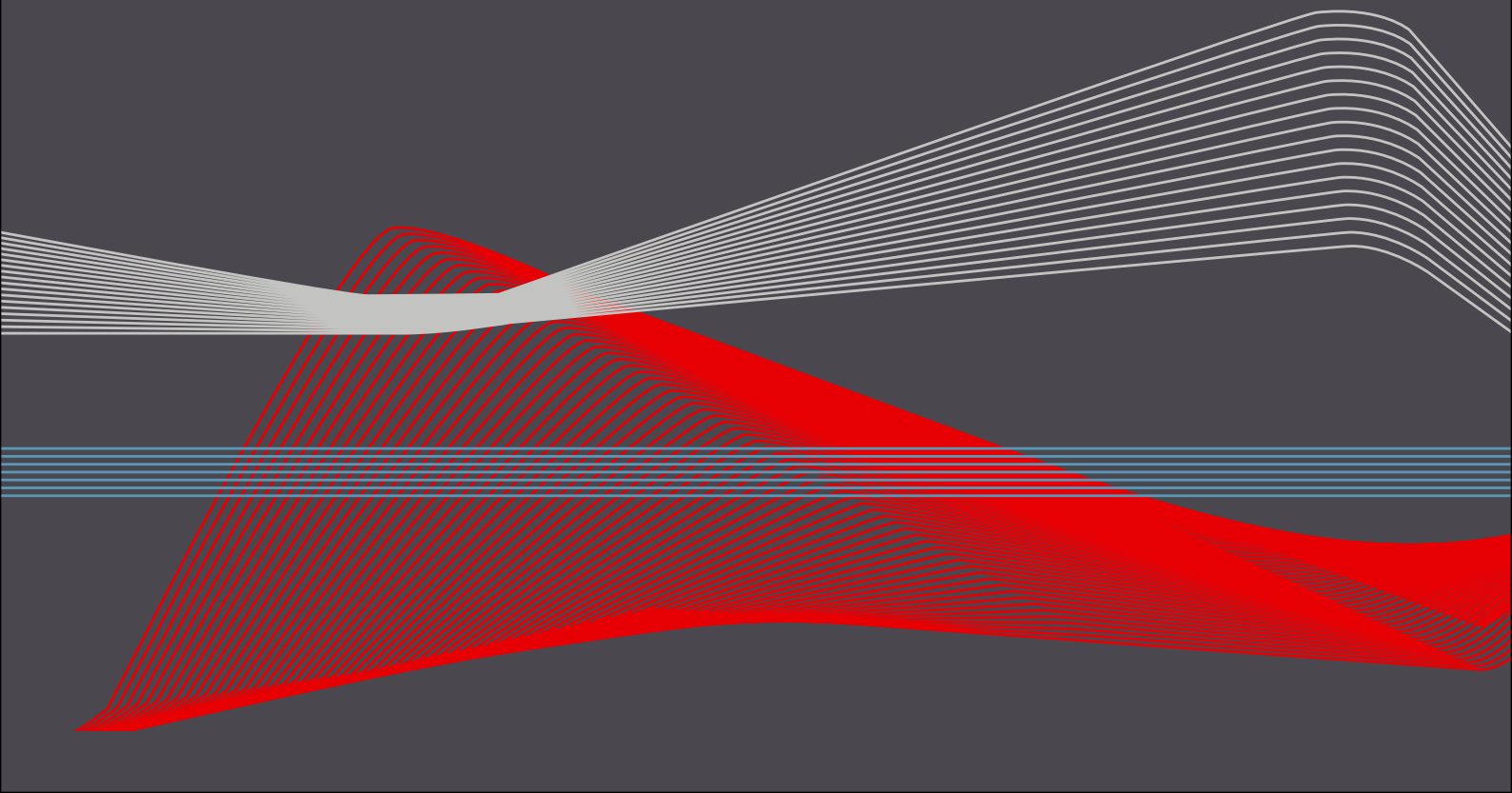
ANNUAL REPORT 2007



07

CONTENTS

ANNUAL REPORT 2007



CREDIBILITY, RECOGNITION AND PROMISING INVESTMENTS

2007 was the year in which the Institute strengthened its credibility and won recognition right across its wide range of technical activities, for which knowledge plays such a key role.

The Institute's employees have first-hand experience of this recognition on a day-to-day basis in their meetings with the many satisfied customers in Denmark and, increasingly, abroad.

It is also gratifying to see the Institute gradually making an appearance in a number of image surveys. One example is the annual 'Universum Young Professionals Survey 2007', which looks at young business academics' visions regarding career, working life and the future. In 2007 the Danish Technological Institute made the list for the first time, storming in to 11th place in the top 20 list of the most attractive places to work assessed by academics with a natural science background. We are proud of this result and will continue to strive to attract the very best employees to the Institute.

Over the last few years, the Institute's turnover from research and development has been falling. We are therefore particularly pleased to note that this trend has now been reversed with a minor increase which is expected to be higher in 2008. This turnaround is central to Danish business life: as a result the Institute can to an even greater extent assist Danish companies retain their competitiveness on the global market.

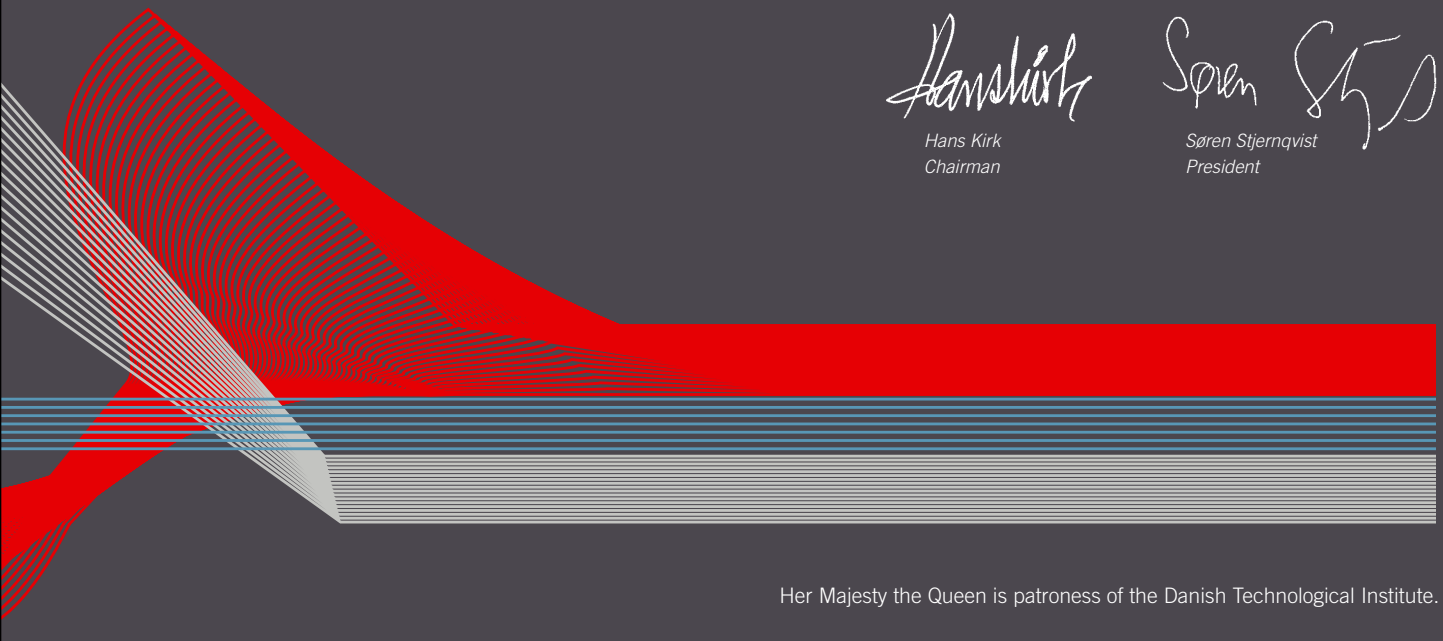
Our ambition is to be far-sighted on our customers' behalf as regards technology and innovation. This means that we ourselves must be the first to invest in the future by for example providing further training and education for our employees, by taking on new development projects and by buying the latest equipment and by setting up world-class laboratories.

In 2007 we opened a hi-tech concrete workshop, equipped with a fully automatic robot and a concrete mixing plant which ensures that architects and companies can produce unique concrete constructions in small runs. We have similarly invested in a new hydrogen laboratory where it is possible to test the different components in the hydrogen chain. In addition we are the first in Denmark to have bought a 'Rapid Manufacturing Machine', which can design and produce complex pieces in metal, so that companies achieve better functionality and increased productivity.

In the next few years we expect to increase investments in new technologies and business areas. We will for example erect a multi-flexible research and demonstration house for innovation and energy efficiency in the building 'EnergyFlexHouse'. The house is to be used to develop construction and installation components, thereby establishing a position for Denmark in the energy sector specialising in sustainable housing. The building is to be erected in Taastrup to coincide with the UN Climate Change Conference (COP15) in 2009.

Since Gunnar Gregersen founded the Danish Technological Institute in 1906, we have retained the diversity of the projects we carry out. In this annual report for 2007, as is our custom, we highlight the results of our work by citing a number of examples of how the Institute fulfils its unique role together with companies and knowledge institutions within and beyond Denmark's borders.

We look forward to exploiting all the possibilities 2008 has to offer constructively and creatively together with our customers and business partners.



Hans Kirk
Chairman

Søren Stjernqvist
President

Her Majesty the Queen is patroness of the Danish Technological Institute.

KNOWLEDGE DEVELOPMENT, KNOWLEDGE APPLICATION AND KNOWLEDGE TRANSFER

KNOWLEDGE DEVELOPMENT

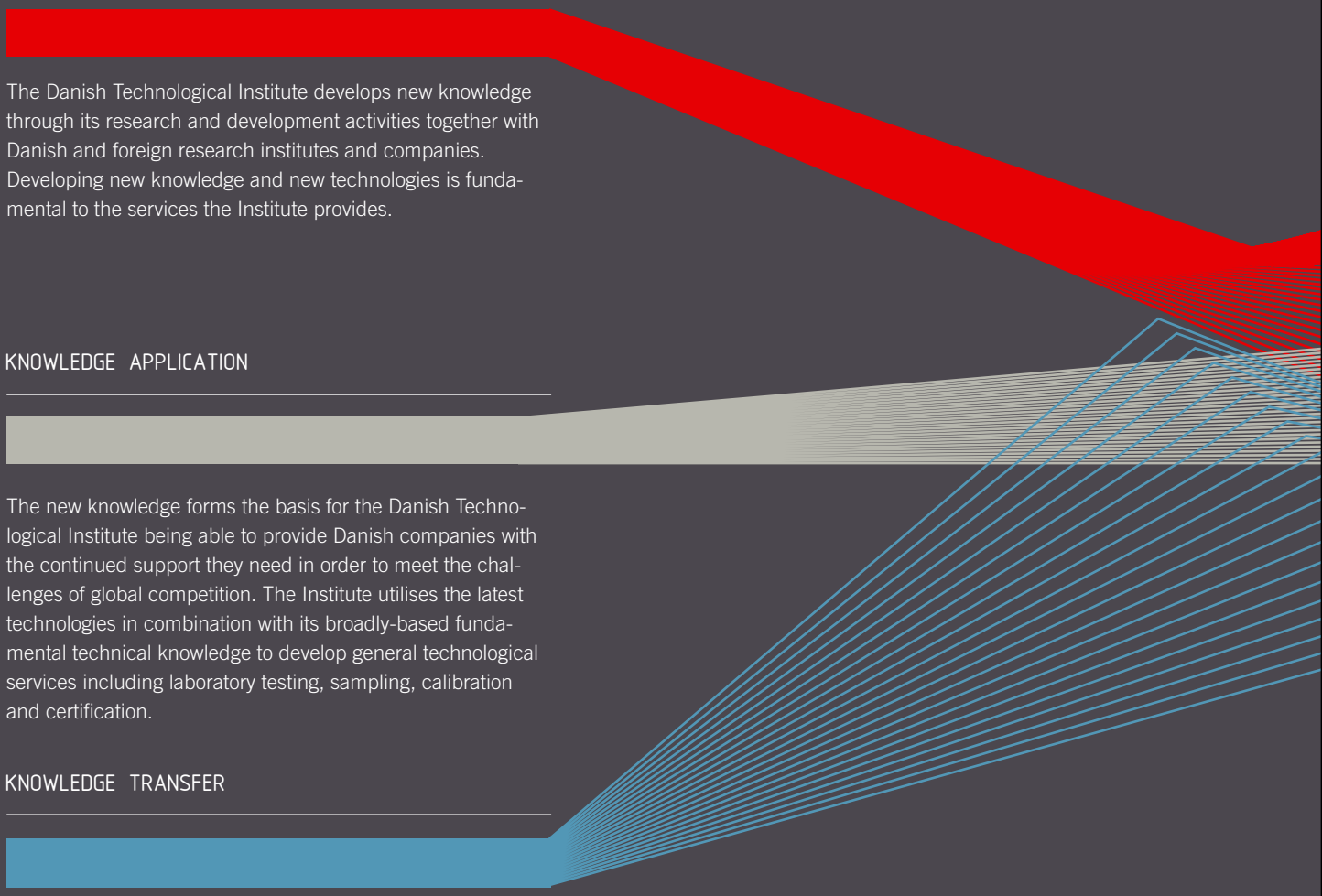
The Danish Technological Institute develops new knowledge through its research and development activities together with Danish and foreign research institutes and companies. Developing new knowledge and new technologies is fundamental to the services the Institute provides.

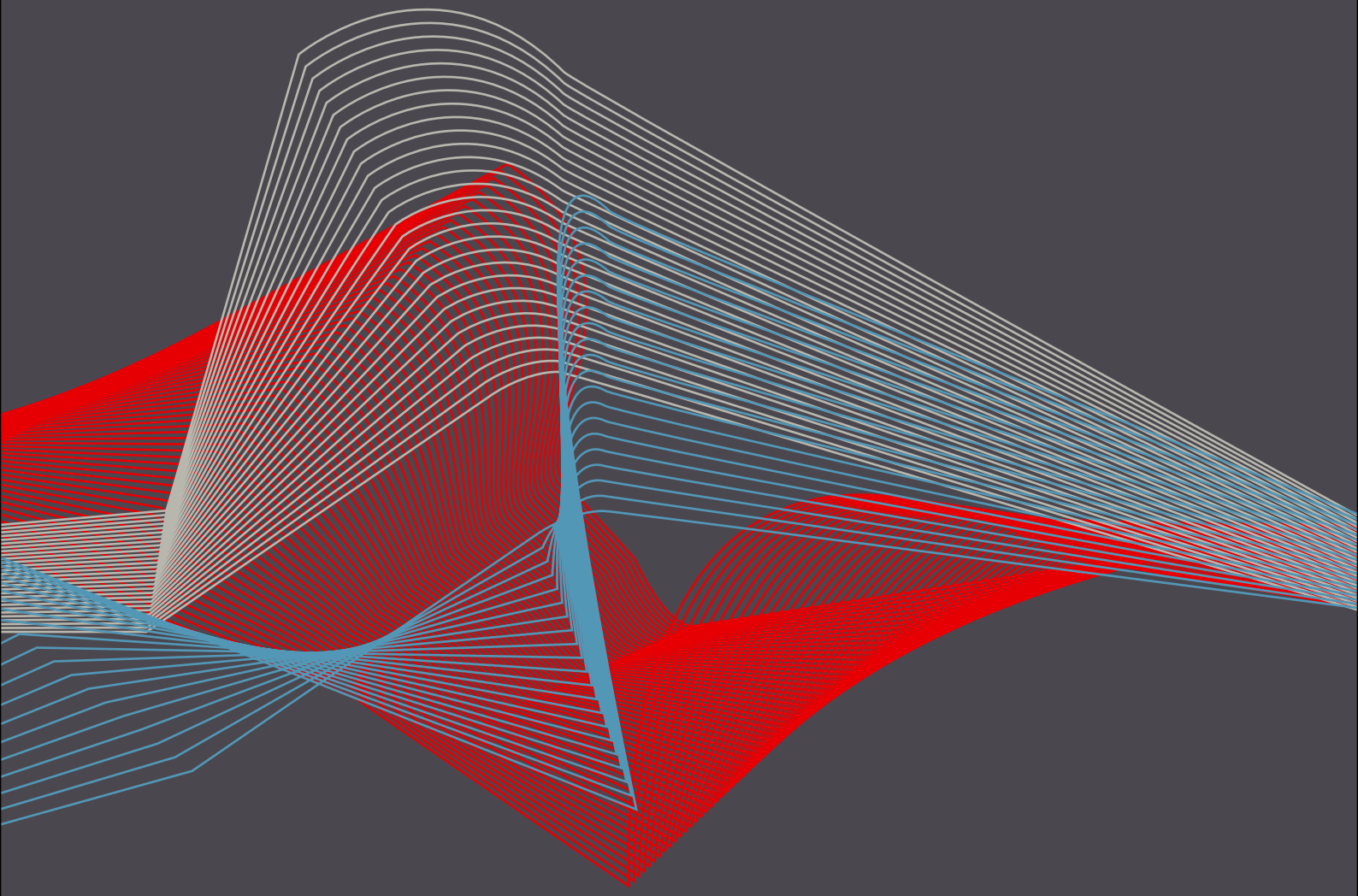
KNOWLEDGE APPLICATION

The new knowledge forms the basis for the Danish Technological Institute being able to provide Danish companies with the continued support they need in order to meet the challenges of global competition. The Institute utilises the latest technologies in combination with its broadly-based fundamental technical knowledge to develop general technological services including laboratory testing, sampling, calibration and certification.

KNOWLEDGE TRANSFER

One of the Danish Technological Institute's most fundamental and crucial tasks is to create an effective transfer of knowledge. In collaboration with large as well as small and medium-sized private companies, and with organisations and public sector clients, knowledge is transferred through consultancy, training and networking activities. The Institute's activities relating to the transfer of knowledge cover everything from courses, secretariat services and operational tasks to one-off and tailor-made consultancy services.

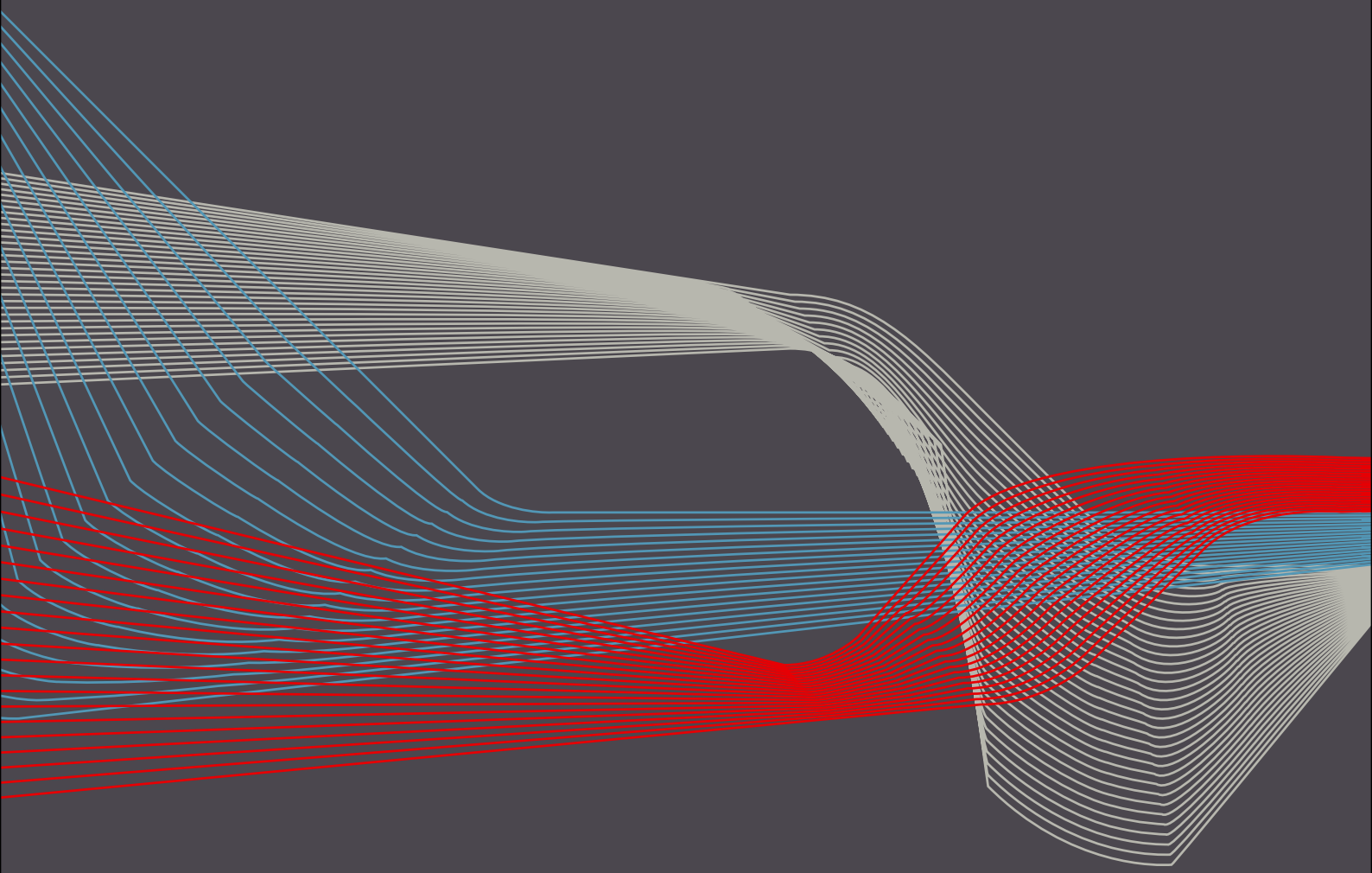




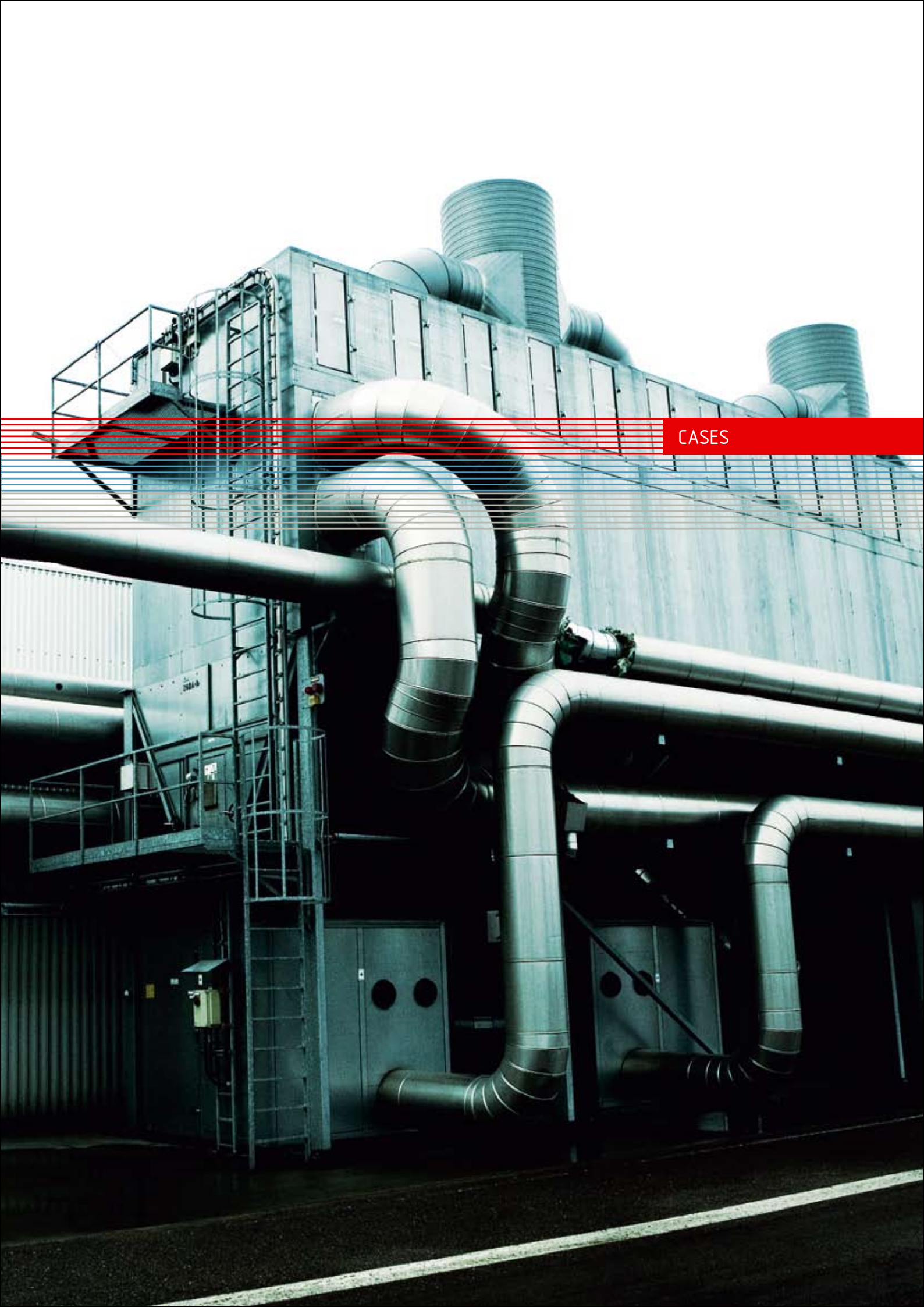
THE DANISH TECHNOLOGICAL INSTITUTE'S ROLE IN THE KNOWLEDGE SYSTEM

In order to serve humanity, technology should always be utilised as something which can contribute to work satisfaction and be labour-saving for the individual, and which can promote progress and growth in society as a whole. This was the attitude held by the Danish Technological Institute's founder Gunnar Gregersen, a holistic view that is still evident in the Institute's day-to-day work.

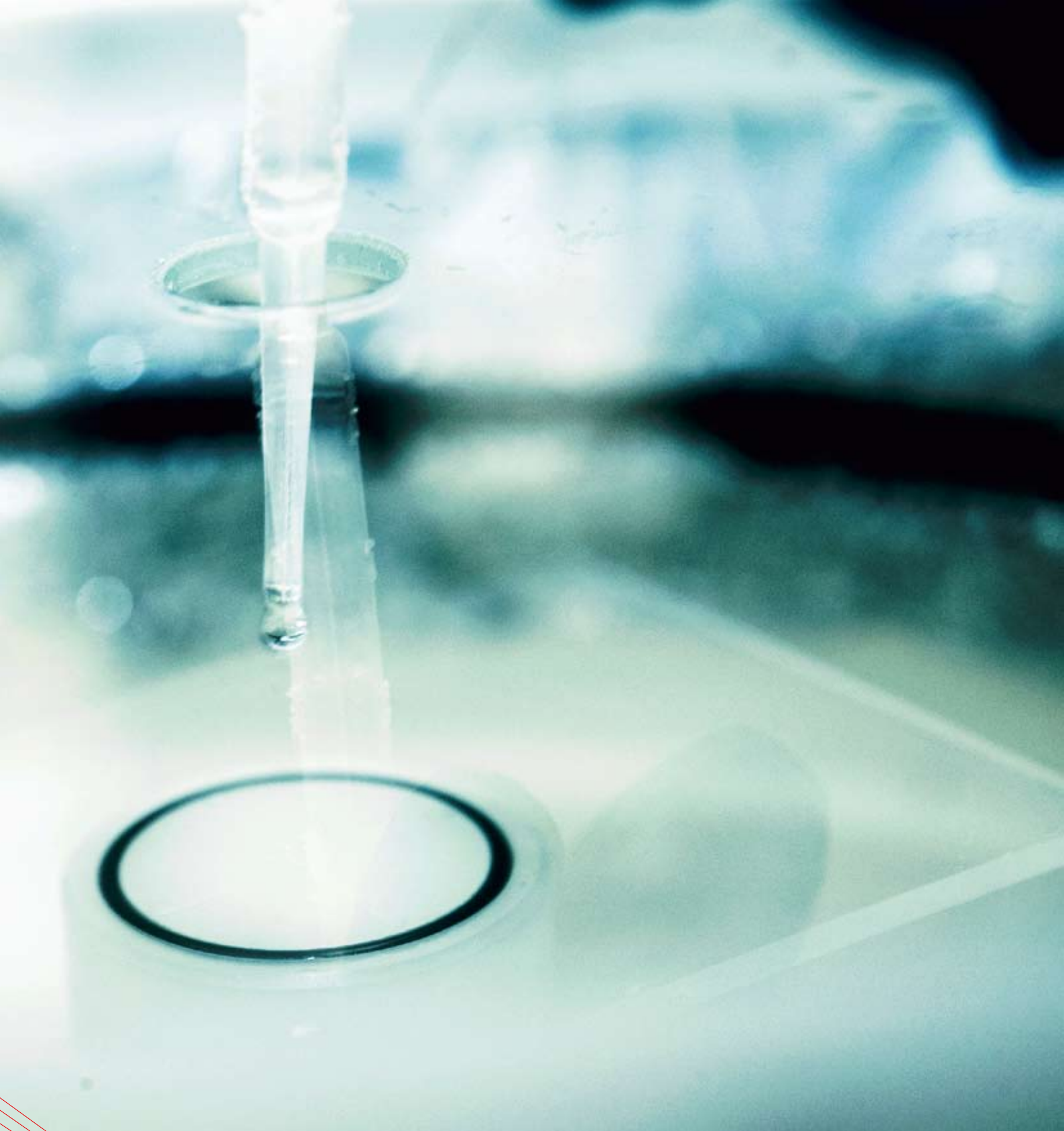
Implementing new technologies in existing and new products demanded by tomorrow's market and utilising known technologies in new ways – this is true renewal and real innovation.



CASES



CASES



KNOWLEDGE DEVELOPMENT

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KNOWLEDGE DEVELOPMENT

MICRO-ENVIRONMENT WITH SENSORS REPLACES UTERUS

Two inventors are now – assisted by the Danish Technological Institute – well on the way with a new product for fertility clinics. The product improves how the egg is handled so that it is not damaged. The new invention is called Smart BioSystems.

Today, fertility treatment is usually carried out using a technique whereby the egg cells are artificially inseminated in a so-called petri-dish. The egg has to be inspected at regular intervals and have various nutrients added to it. At the same time it is important that the pH value and temperature levels in the immediate environment in the petri-dish are kept close to those in the uterus. This is an extremely difficult process for the fertility clinics to carry out as the egg is very vulnerable to outside influences.

- The idea is to solve the fertility clinics' problems with the difficult business of handling the egg by creating a chip in a protected micro-environment to replace the petri-dish. We believe that this will be very profitable in the long-term, says investment manager Nils Hall Torgersen of Technological Innovation A/S, a subsidiary of the Danish Technological Institute.

- The process results in a completely closed environment which recreates the natural environment inside the uterus, in terms of pH value, temperature and the supply of nutrients. The environment is equipped with sensors which communicate with a computer, thus creating a monitoring system, says senior consultant Ulrich Krühne from the centre for Micro-technology and Surface Analysis at the Danish Technological Institute.

Through Technological Innovation A/S, the Danish Technological Institute has become a co-investor in the new company Smart BioSystems ApS, which has developed the new prototype for handling the fertilised eggs. As well as contributing start capital amounting to EUR 0.2 million, the Institute has advised the inventors about business development, market analyses, marketing strategy, business operation and micro-technology.

Similarly, the Institute has been instrumental in ensuring that the new company has got a patent for the invention and injected new capital from other investors so the development of the product can be continued and turned into a viable and successful business when it is launched on the domestic as well as international market.

- We were having trouble making headway with our invention for a couple of years. It was like wandering around in the desert, states Jacob Møllenbach, one of the key people behind the new invention.

- But things started looking up about a year and a half ago when we decided to apply to the Danish Technological Institute, where we presented our idea. We've received invaluable help from different experts across the Institute. We've had help to develop the technology and also got support for the commercial side, so that we ended up with a viable business plan and start-up capital, says Jacob Møllenbach.

Finally, the Institute has made sure that Smart BioSystems ApS, led by the two inventors themselves, now has the opportunity to go further with a large new cancer project, CEMIK, using the same core technology. The goal of the project is to develop new micro-technological aids to improve the treatment of cancer with immune therapy in hospitals.

The new company Smart BioSystems ApS on its way with a new invention for fertility clinics. The Danish Technological Institute has invested seed capital in the innovative business idea via its subsidiary Technological Innovation A/S.

KNOWLEDGE DEVELOPMENT

SUCCESSFUL TESTING OF NEW BIOMIMETIC PLASTICS AS SUBSTITUTES FOR SKIN, CARTILAGE AND BONE

There is good news from the Danish Technological Institute's plastic materials experts, who are leading a cross-disciplinary and national research project which is to develop and test bone implants of three-dimensional structures in porous plastic.

The research at the Institute is aimed at enabling the materials to interact with the body's own cells so that a link is formed between the biocompatible materials and the natural biological tissue. In this way the new technology will mean that in the future cancer and burns patients as well as traffic accident victims with extensive tissue damage will be able to get help regaining the use of their limbs without having to transplant skin or bone from other parts of the body.

The Danish Technological Institute's research in this field has so far yielded excellent results as shown in the tests carried out by leading researcher into stem-cells Moustapha Kassem from Odense University Hospital and Professor Søren Overgaard, who is head of the laboratory testing of the substitute materials.

The latest results indicate that the artificial materials are so similar in functionality to the biological structures in the body that they can work together with the body's own cells without being rejected.

The research project has been initiated by the Institute and is based on a cross-disciplinary collaboration between engineers, biologists and molecular biologists as well as researchers and clinicians specialised in patient problems and how diseases run their course.

Over the last five years, the Danish Technological Institute has carried out research into the production and activation of tissue and bone structures and has among other things coordinated three EU projects in the field.

KNOWLEDGE DEVELOPMENT

NEW DNA METHOD CREATING NEW TOOLS FOR TRACING THE SOURCE OF DRINKING WATER POLLUTION

The Biological Institute at the University of Aarhus and the Danish Technological Institute have together developed a new DNA method which can determine within only a few hours which animal faecal pollution originates from.

Micro-organisms' genetic fingerprints are being used to identify whether it is waste from humans, cattle, pigs or birds that is the cause of polluted drinking water. The method is based on modern molecular biological technology which is also used by the police to gather DNA evidence in court cases. Laboratory results from the analysis of the bacteria's DNA make-up are available after only a few hours, compared to traditional methods of monitoring water quality which are based on slow cultures of the bacteria.

- With more than 25 cases a year in Denmark when local authorities have issued orders or recommendations for people to boil their water, there is a clear need for reliable tools to quickly trace the source of drinking water pollution, says Aaron Marc Saunders from the centre for Chemicals and Water Technology at the Danish Technological Institute.

The new method, which was used to support traditional methods in clearing up the recent case of water pollution in the town of Køge, was quickly able to show that the pollutant originated not from seepage from slurry, but from human waste.

- When we had to try and find out what had happened, the Danish Technological Institute's new method of investigating the water in Lyngen waterworks' pipe network proved an important supplement to the traditional analyses, says operations and plant manager Lars Mørk from Køge Municipality.

The experience gained from the Køge case has served to document the usefulness of the new method.

KNOWLEDGE DEVELOPMENT

NEW METHODS FOR MONITORING BACTERIA

Undesirable bacteria in technical systems cost Danish businesses billions of kroner every year. The Danish Technological Institute is heading the innovation consortium 'At-line Monitoring of Bacteria-AMBA', which is working to solve the problem.

Together with university and business partners, the Danish Technological Institute is working on combining molecular microbiology, nanotechnology and advanced spectroscopic techniques to develop an analysis platform which can quickly and accurately monitor and check microbiotic processes in the surrounding area – even outside the laboratory.

- We expect the results from the consortium's work to lead to huge cost savings in areas such as corrosion, hygiene and health, says Mikael Poulsen, section head at the Danish Technological Institute's centre for Chemicals and Water Technology.

The consortium brings together two fields in which Danish expertise is world-renowned and which offer major export opportunities for Danish industry, namely oil production and biological water purification. The chosen methodological approach is universal and can be used in all systems where monitoring of microbiology is of importance, including hospitals, food production facilities, cooling systems and water treatment plants.

KNOWLEDGE DEVELOPMENT

CONSUMER TEST TO ENSURE EASY-TO-OPEN PACKAGING

The EU is currently working on developing a common standard for consumer-friendly packaging. As a result, the Danish Technological Institute last year carried out a consumer test of different types of packaging as part of a Nordic standardisation project.

Almost 100 people took part in the consumer test at the Danish Technological Institute, including people suffering from rheumatism, and people with no handicaps. The first task was for the test volunteers to screw open a jam-jar with a metal lid, while the Institute's technical equipment measured how much strength the people had in their fingers. In addition they had to answer questions about any everyday difficulties they had with opening product packaging, and about any reduced eye, hand, etc. functionality they may have had. After that they had to open the packaging from eight different types of everyday household goods, ranging from ring pull cans and packets of tablets to sweet bags and plastic wrapped boiled ham. Every single test event was recorded on camera, and over the course of the testing period, the test volunteers were asked questions from a questionnaire about how easy or difficult they found it to open the different kinds of packaging.

- Our job in the project is to gather practical knowledge about consumer testing of different types of packaging to ensure improved, easier to open packaging for everyday household products, says Søren Rahbek Østergaard from the centre for Packaging and Transport at the Danish Technological Institute.

The results from the consumer test are to be used to produce technical documentation to back up Scandinavian views in the debate which will culminate in a few years in a common European standardisation of retail packaging.

Around 700,000 Danes have problems opening for example a packet of ham. The problem is growing due to the increasing number of old people and people with rheumatism, who no longer have such fine motor skills and strength in their fingers and arms.

KNOWLEDGE DEVELOPMENT

DEVELOPMENT OF A HYDROGEN FILTER FOR THE DANISH NATURAL GAS NETWORK

Denmark is among the world leaders in fuel cell technology. In the spring of 2007 the Danish Technological Institute launched a promising three-year hydrogen project whose goal is to develop a filter for the natural gas network.

The Institute's hydrogen experts are currently working on developing a prototype of a hydrogen-selective membrane. In the future hydrogen will also be distributed through the Danish gas network together with natural gas. The new filter therefore has to be able to separate the hydrogen and the natural gas and extract the pure hydrogen from the natural gas pipe for the end-user.

- A crucial condition for enabling the distribution of hydrogen via the existing Danish natural gas network is the development of a hydrogen-selective membrane, which is why we are actively funding the development in order to have the technology ready, says Lise Nielson from Energinet.dk, which is supporting the project with a cash injection of EUR 0.5 million.

The hydrogen will be produced from renewable energy sources and is to be used to produce electricity and heating in the houses of the future as well as for hydrogen-powered cars. There are also a number of other conceivable uses of hydrogen.

The development work is being carried out in collaboration with the Danish Gas Technology Centre, which will investigate how the membrane can best be implemented in the natural gas network. The Centre is also responsible for the testing of the membrane.

In the long-run a commercial filter is expected to be introduced onto the market. The Danish Technological Institute is looking to contact Danish companies which might be interested in buying the new hydrogen filter product.

KNOWLEDGE DEVELOPMENT

CREATIVITY BLOSSOMS AT HI-TECH CONCRETE WORKSHOP

The Danish Technological Institute has inspired and helped small and medium-sized companies to produce unique concrete constructions in small series in its new hi-tech workshop. Since the workshop opened in June 2007, there has been growing interest in the fully automatic robot and concrete mixing plant which turns architects' most imaginative ideas into concrete reality.

Danes can look forward to coming across more and more exciting concrete buildings. With the help of the new high technology, architects now have free rein to realise their unique visions for the geometry and surfaces that concrete can offer. In practical terms this means that the architect produces 3D drawings of the building which are then transferred to a robot which in turn produces a mould in a flexible moulding material such as plastic or moulding sand. After that the mould is filled with concrete from a fully automatic mixing plant. The concrete poured into the mould is self-compacting, which means that the material flows out into the mould itself without having to be worked mechanically.

- We have a vision that concrete's heyday is approaching and that the hi-tech workshop will be a place where architects can realise their more creative and unorthodox ideas, says centre manager Mette Glavind from the Danish Technological Institute's centre for Concrete.

- Our new technology at the concrete workshop now makes it possible for architects and other creative design people to express themselves through unique and individual constructions. We believe that we can revolutionise the concrete construction business, and in doing so change the image of concrete as something uniform, standardised and boring, says Mette Glavind.

The high technology concrete workshop is central to a three-year project which is receiving a EUR 0.8 million subsidy from the Danish National Advanced Technology Foundation.

One of the companies involved in the project is Spæncom A/S, Denmark's leading supplier and producer of prefabricated concrete elements. Together with the Danish Technological Institute, the company is part of a project developing unique concrete elements, i.e. concrete with an individual look for, for example, facades and walls.

- Unique concrete constructions will gain a strong foothold in the future. Building owners want to make their mark via their buildings and this will be made possible if we supply unique concrete, for example in the form of facade elements, says managing director Peter Assam from Spæncom A/S. He explains that for Spæncom A/S the establishment of the hi-tech workshop is significant as it enables new methods to be developed for the industrialised production of unique concrete constructions.

The Danish Technological Institute is working on developing an intelligent robot with sensitive hands to improve the working environment.

KNOWLEDGE DEVELOPMENT

INTELLIGENT AND FLEXIBLE ROBOTS FOR FOOD PACKING

'Robo-Packman' is the name of a new flexible and intelligent robot technology which will increase competitiveness and improve the working environment in food producing companies' packing departments.

The Danish Technological Institute is heading the innovative project, contributing to the technical development with its robot laboratories and technical know-how about robot technology and packing. It was an idea from one of the Danish Technological Institute's employees coupled with food producer Danish Crown's desire to improve working conditions in their packing departments that started the project rolling.

- We've been very successful at systematically reducing the very wearing jobs involving monotonous, repetitive heavy lifting, but certain jobs are difficult to automate with the known technology, says Jesper Frørup from Danish Crown and adds that there is a pressing need for intelligent and flexible robots in food packing.

- Our ambition in the long-term is to develop an intelligent robot with sensitive hands which can learn from its own experience, just like people do – but there's some way to go before we get there, says the project's ideas man Siamak Mesbah, who is a senior engineer at the Danish Technological Institute's centre for Packaging and Transport. He adds that there is a need for a robot that can see, feel and weigh raw food products and translate that knowledge into quick decisions and actions in order to produce neat and uniform packs in the food production facilities.

To start with, the partners behind the project will develop an advanced claw which can be used for selected packing tasks. The challenge is to create a robot with two arms, each with a hand with 2-5 fingers, which can handle natural products, given their intrinsic variation and diversity. One of the selected products is spareribs, which today are handled and packed manually for among others the American market.

- On top of the robot being able to identify the food product, it also has to have some kind of sense of feel so that it can evaluate the meat and turn it over or round without ruining it. In order to do this we have to combine and simplify a lot of hi-tech components, says Claus Risager, centre manager at the centre for Robot Technology at the Danish Technological Institute in Odense.

The innovation project is being subsidised with EUR 2.1 million, EUR 1.2 million of which is being contributed by the Ministry of Food, Agriculture and Fisheries.

From the Institute, the centre for Packaging and Transport is taking part together with the centre for Robot Technology. The other partners in the project are the Danish Meat Association's Research Institute, the Mærsk Institute at the University of Southern Denmark and the companies Danish Crown, Giben Scandinavia A/S, TriVision ApS and Robotec.

KNOWLEDGE DEVELOPMENT

COLLABORATION WITH DANISH COMPANIES IN THE DEVELOPMENT OF FUEL CELLS

The Danish Technological Institute is leading a large number of hydrogen projects whose goal is to create new technology which will make it easier for Denmark to switch over to renewable energy sources.

The Danish company IRD Fuel Cell Technology A/S in Svendborg is working together with the Institute to develop cheap materials and components suitable for the production of polymer fuel cells in an 18-month project.

At the moment, focus is being concentrated on temperature-constant packing and bi-polar plates which are to be produced through the injection-moulding of electrically conductive polymer/carbon composites. The components will be used for two types of fuel cells which will work at 80°C and between 150 and 200°C respectively. Today the price for the bi-polar plates is EUR 500 per square metre.

- The price of the bi-polar plates has to come down to around EUR 50 a square metre before there can be any real commercial breakthrough. But we believe that the project will help to ensure that we will be able to produce hydrogen-based fuel cells cheaply and easily in the future, maintains development manager Steen Yde-Andersen from IRD Fuel Cell Technology A/S.

The components make up the main parts of the fuel cell plant which produces energy sustainably. This could be in a gas boiler which as well as providing heating also generates electricity for the building. The fuel cell's preferred fuel is pure hydrogen which can be supplied through the natural gas network. The hydrogen is produced from natural gas or stored in the so-called hydrogen tablets, which the Institute has contributed to developing for the Danish company Amminex A/S.

The project is being subsidised with EUR 0.9 million from the Danish Energy Authority. As well as IRD Fuel Cell Technology A/S, Danish Power Systems ApS is also participating in the project.

KNOWLEDGE DEVELOPMENT

CONTROLLING HARMFUL BACTERIA ON MEDICAL EQUIPMENT

Since 2006, the Danish Technological Institute has led a consortium which has been developing methods which will make possible the diagnosis, prevention and control of harmful micro-organisms on medical equipment. Every year 5-10% of all hospital patients contract some kind of hospital infection as a result of bacteria on urinary catheters, vein catheters, heart valves and chronic sores. Of these some 200-300 patients die from being infected by the bacteria Staphylococcus aureus.

Major leaps forward were made in the consortium's work in 2007, as researchers from Aalborg University, the Danish Technical University and the Danish Technological Institute investigated and gained new knowledge about the harmful micro-organisms which are present on various types of medical equipment.

Completely new molecular-biological methods were used together with advanced microscopic techniques to identify micro-organisms as well as visualise the build-up of bio-film. This was done in collaboration with Rigshospitalet - Copenhagen University Hospital and Bispebjerg Hospital. Through careful analysis, the partners in the project have found out that there is a large diversity of bacteria which cannot be detected using traditional diagnostic methods.

Furthermore, the results have led to the participating company partners gaining valuable insight into how infections occur. This knowledge is being applied in the development of new advanced medical products such as Coloplast's new plasters.

The partners in the project are currently working on developing and establishing quicker and more precise detection methods as well as more bacteria-specific treatments.

KNOWLEDGE DEVELOPMENT

EASIER MAINTENANCE OF SURFACES

Lamps and cooker ventilation hoods which clean off dirt and micro-organisms themselves are no longer science fiction – on the contrary they are soon to become a reality. In the summer of 2007, the Danish Technological Institute, together with eight other partners, received EUR 3.6 million to develop and promote the use of self-cleaning surfaces in Danish high-end manufacturing products.

Breaking down fatty substances, simpler washing procedures and longer product lifetimes – these are the focus areas for the work being carried out by the new innovation consortium 'Clean Catalytic Surfaces'.

The consortium represents four very different industrial segments including the hospital and care sector, air and water cleaning, surfaces for design products and the development of new types of road marking and painting materials. The idea is to use light-sensitive, nano-catalytic materials to create environmentally-friendly and efficient cleaning technology which will result in longer product lifetimes and reduced maintenance of the products. Experience from world-class catalytic research is being combined with the latest know-how in the field of photo-catalysers.

- This combination allows us to develop coatings with value-added properties, says section head Jens Christiansen from the centre for Plastics Technology at the Danish Technological Institute, adding that one of the materials being used as photo-catalysers is the well-known titanium dioxide.

- Moreover, the research is exploiting some of the latest PVD technology, which is being further developed with the acquisition of Europe's most advanced sputtering facility, specially designed to be able to handle oxides such as titanium dioxide, says Lars Pleth Nielsen from the centre for Tribology at the Danish Technological Institute.

One of the consortium's main goals is to help Danish manufacturing companies develop products with self-cleaning properties, including road markings which retain their colour longer and industrial ventilation hoods which almost never need cleaning. One of the companies taking part is Danish high-end lighting producer Louis Poulsen Lighting A/S.

- We can see huge potential in the technology which will mean both reduced service costs for our customers and significant energy savings, says Henrik Lenskjold from Louis Poulsen Lighting A/S.

The work is being subsidised by the Ministry of Science, Technology and Innovation. In the consortium along with the Danish Technological Institute and Louis Poulsen Lighting A/S are the Technical University of Denmark, Aalborg University and five other Danish companies – all with their unique competences in their own particular field of business. These companies are Accoat A/S, Jimco A/S, KEN A/S, LKF Vejmarkering A/S and Teknos A/S.

KNOWLEDGE DEVELOPMENT

RESEARCH TO ENHANCE ORGANIC AQUA-CULTURE

Together with a number of other partners, the Danish Technological Institute is creating the foundation for breeding organic trout using vegetable foodstuffs. The Danish Research Centre for Organic Food and Farming have subsidised the four-year research project with EUR 0.9 million.

The idea behind the research project is to develop methods which will enable plant products to be turned into protein-rich fish food. The research is aimed at replacing the fish meal in traditional fish food with vegetable protein from organic crops such as peas and rapeseed. There are big advantages in doing this. Firstly, fish meal is becoming a scarce resource and secondly, organic farmers will benefit from having new marketable crops which are more than suitable for organic crop rotation.

As well as the Danish Technological Institute, the National Institute for Aquatic Resources, the Faculty of Life Sciences at Copenhagen University, BioMar A/S, The Danish Aquaculture Organization, DTU Biosys at the Technical University of Denmark and several organic fish farms are also involved in the project.

KNOWLEDGE DEVELOPMENT

WORLD'S BEST PROTECTION AGAINST EARWAX IN HEARING AIDS

The Danish Technological Institute and hearing aid producer Widex A/S have developed a new filter which effectively prevents earwax and moisture from entering the hearing aid.

The penetration of earwax and moisture into the vital electronic parts of a hearing aid cause corrosion and result in a faulty device. In spite of several producers' attempts at producing filters and membranes to reduce the penetration of earwax and moisture, the number of faults occurring in hearing aids has up till now been far too high.

Now, however, the Danish Technological Institute has effectively minimised the problem by applying a nanocoating chemically bonded to the surface of the filter. The protection system is being launched by Widex A/S under the brand name NanoCare ™.

- Hearing aids going wrong is a big everyday problem for users because earwax and moisture get into the electronic parts, says technician Christian Hinrichsen from the audiological department at Aarhus Hospital. He receives and investigates faulty hearing aids and sends them on to the producer where repairs often take up to a week.

The new protection system consists of a microscopically thin chemical surface coating on a perforated filter which protects the hearing aid's central digital parts. The technology behind the system is inspired by the same self-cleaning effect evident in certain plants, for example the lotus blossom and water lily. These plants have a natural cleaning mechanism insofar as the leaves are water-resistant and remain dirt-free due to them having a rough, wax-like surface membrane.

NanoCare ™ was introduced onto the market just before New Year, and Widex A/S expects that millions of people the world over will benefit from the new protection system.

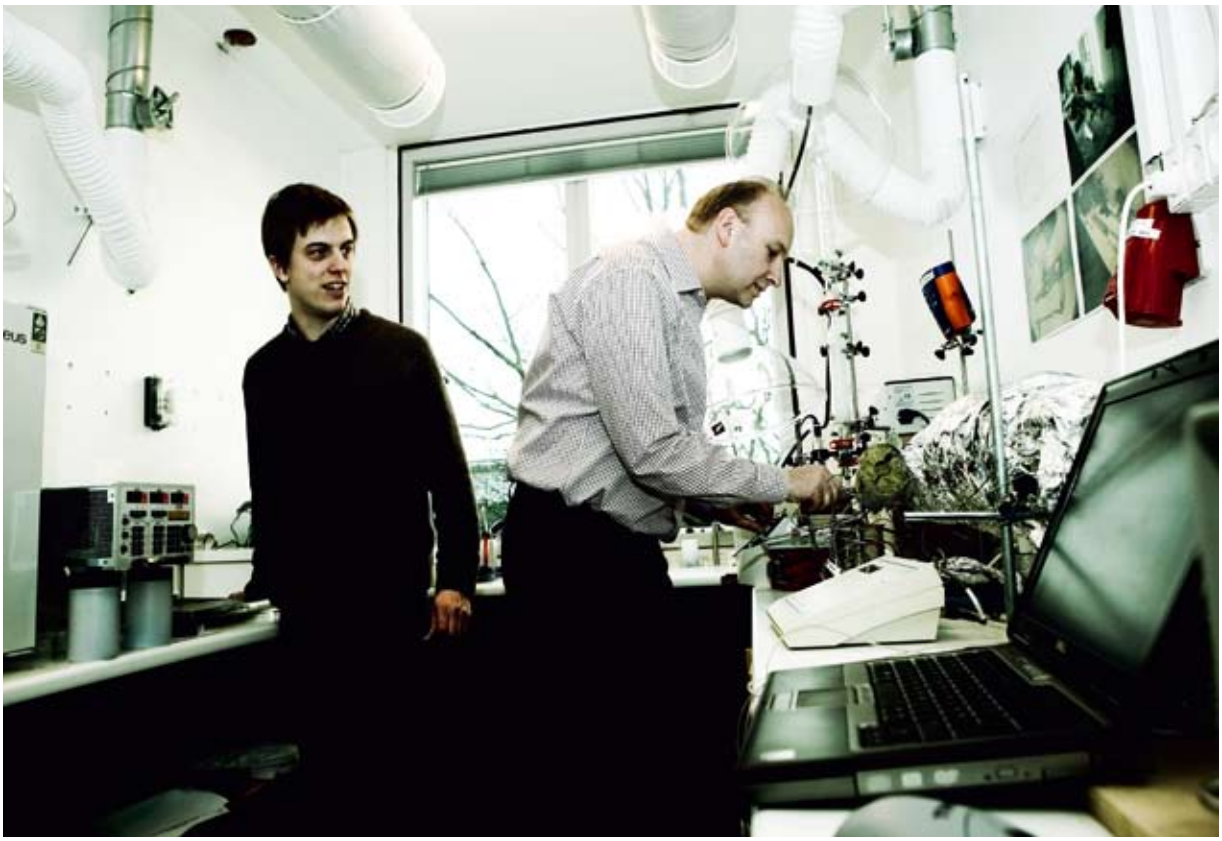
- There is quite simply no inconvenience at all with the new system. It is extremely easy to use and the hearing aid remains stable and fault-free, says production manager Jørgen Vestergaard from Widex A/S.

Together with Widex A/S, the Danish Technological Institute has taken out two patents for the new nanocoating system for hearing aids.

KNOWLEDGE DEVELOPMENT

DEVELOPMENT OF NEW MINI-REACTOR FOR EFFECTIVE PRODUCTION OF HYDROGEN FOR FUEL CELLS

The Danish Technological Institute is helping to ensure that Denmark is among the world's leading countries when it comes to research into renewable energy based on stored hydrogen. One new hydrogen activity, among many others, that the Institute has recently embarked on is the development of a reactor which can produce pure hydrogen of ammonia from the so-called hydrogen tablets.



The reactor is designed to be used in dust and pollution-free power generators or built into the new hydrogen cars that car manufacturer Honda is launching in 2008.

We believe that the hydrogen tablet has great possibilities as the fuel of the future. Hydrogen is environmentally-friendly and is an obvious choice for a green alternative to petrol when it can be stored in tablet form, says hydrogen expert Jens Christiansen from the Danish Technological Institute, who is leading the project.

The project has been subsidised by the Ministry of Science, Technology and Innovation with EUR 0.3 million. The partners in the project are Amminex A/S, Grundfos A/S and the Technical University of Denmark.

KNOWLEDGE DEVELOPMENT

NORDIC EU-PROJECT 'COSMOS II' DEVELOPING STRONGER, INTELLIGENT COATINGS

Since the new year 2007, the Danish Technological Institute has been leading the continuation of the two-year Nordic research and development project 'COSMOS I'. The new project 'COSMOS II' focuses on new and better types of coating.

The development project is partly being financed by the Nordic Innovation Centre and was extended at the beginning of 2007 with a further two years via the EU-EraSME scheme. The project is based on a transnational collaboration between the Danish Technological Institute and the three research institutes Technical Research VTT in Finland, Acreo AB in Sweden and SINTEF in Norway.

- The idea behind the Nordic development project is to bring together key players who are highly skilled in the field of hard-wearing low-friction coatings as well as sensor design and manufacture, centre manager Lars Pleth Nielsen from the Tribology centre at the Danish Technological Institute tells us.

The Danish Technological Institute is contributing with the latest knowledge for the development and application of hard, durable and self-lubricating coatings based on advanced vacuum-deposition techniques such as Physical Vapour Deposition (PVD), Plasma Enhanced Chemical Vapour Deposition (PECVD) and Ion Beam Assisted Deposition (IBAD).

In order to ensure the continued development of new and better types of coatings, plus combining function-optimised surface coatings with in-built sensor technology, experts from the Danish Technological Institute have taken the initiative to carry out a series of development activities involving product-embedded sensors. The aim – on top of improving the hard-wearing coatings – is to combine the optimised coatings with embedded sensors so that the system can provide continuous feedback on the condition of the surface, thus ensuring an optimal performance. In this way, an overloaded production tool can be inspected or adjusted before it breaks down.

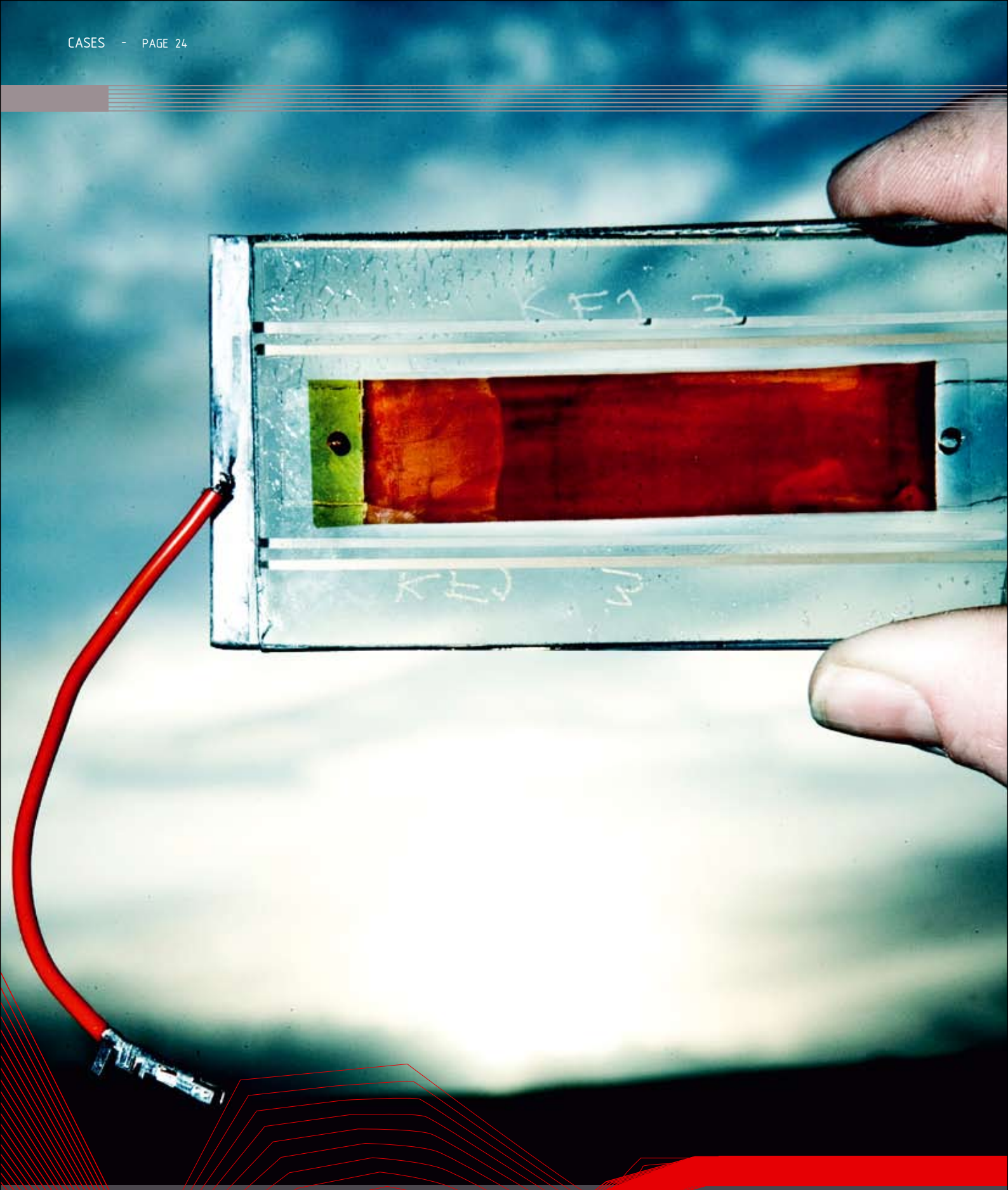
- The expectation is that thanks to the continued Nordic collaboration, we will achieve results which will revolutionise production technology through an intelligent production platform which allows online adjustment of different process parameters, says Lars Pleth Nielsen.

KNOWLEDGE DEVELOPMENT

NEW PERSONAL CERTIFICATION OF COMMUNICATORS

Over the course of 2007, the Danish Technological Institute has certificated 15 strategic communications consultants.

The certification of communications managers and communications consultants has been done using the Institute's new personal certification after the candidates completed the course 'Strategic Communications Consultant'. The communications consultants represent primarily large companies such as TDC, DSB, Vestas Wind Systems, Danske Bank, the Ministry of Food, Agriculture and Fisheries, and Copenhagen Municipality.



The Danish Technological Institute is a leading player in the research and development of electro-chemical solar cells in glass. The new type of solar cells is ideal for the decoration of buildings, also providing a pleasant interior climate.

KNOWLEDGE DEVELOPMENT

BEAUTIFUL FUTURISTIC SOLAR CELLS IN GLASS

For a number of years, the Danish Technological Institute has been researching the development of electro-chemical solar cells which can potentially be cheaper than traditional silicium solar cells. The new type of solar cell is well suited to be used in glass facades on for example office buildings. The development has now come so far that some of the components have to be produced by industrial processes at the Danish company Mekoprint A/S. Energinet.dk is subsidising the project.

The project's vision is to develop a technology to start off industrial production of solar cell panels in glass. The panels are to be placed in building facades. The Danish Technological Institute is developing the new so-called DSC cell, 'Dye Sensitized Solar Cell', in glass together with the universities in Copenhagen and Aalborg as well as the company Mekoprint A/S in Støvring which makes silk prints of electronic components.

- Solar panels in glass is a fantastic building material. The sky is the limit as far as thinking up uses for the material, says senior consultant Hanne Lauritzen from the Danish Technological Institute.

A solar cell in transparent glass can for example be used as a sun-screen in roof partitions, e.g. in a swimming pool. Furthermore, the solar cells can be made in different colours, patterns and forms. The solar cell panels are therefore especially well suited to creating fun and exciting glass mosaics as building decoration.

The basic idea of the project is to develop a concept for integrating solar cells into constructions where the guiding principle is the interaction between the solar cell and the interior daylight. When sunlight hits a transparent solar cell only a part of the energy is converted into electricity. The rest of the energy is either reflected back or directed into the room where it provides both daylight and warmth. The light through the solar cell panels can, if managed with care, create an indoor atmosphere in which the movement and variation of the sun over the course of a day are reflected, thus creating a living and attractive indoor climate in the building.

The solar cell should therefore be seen as an attractive building element which, as well as producing electricity, can also function as a sunscreen and provide a temperate interior climate with pleasant daylight, which is a classic theme in architecture.

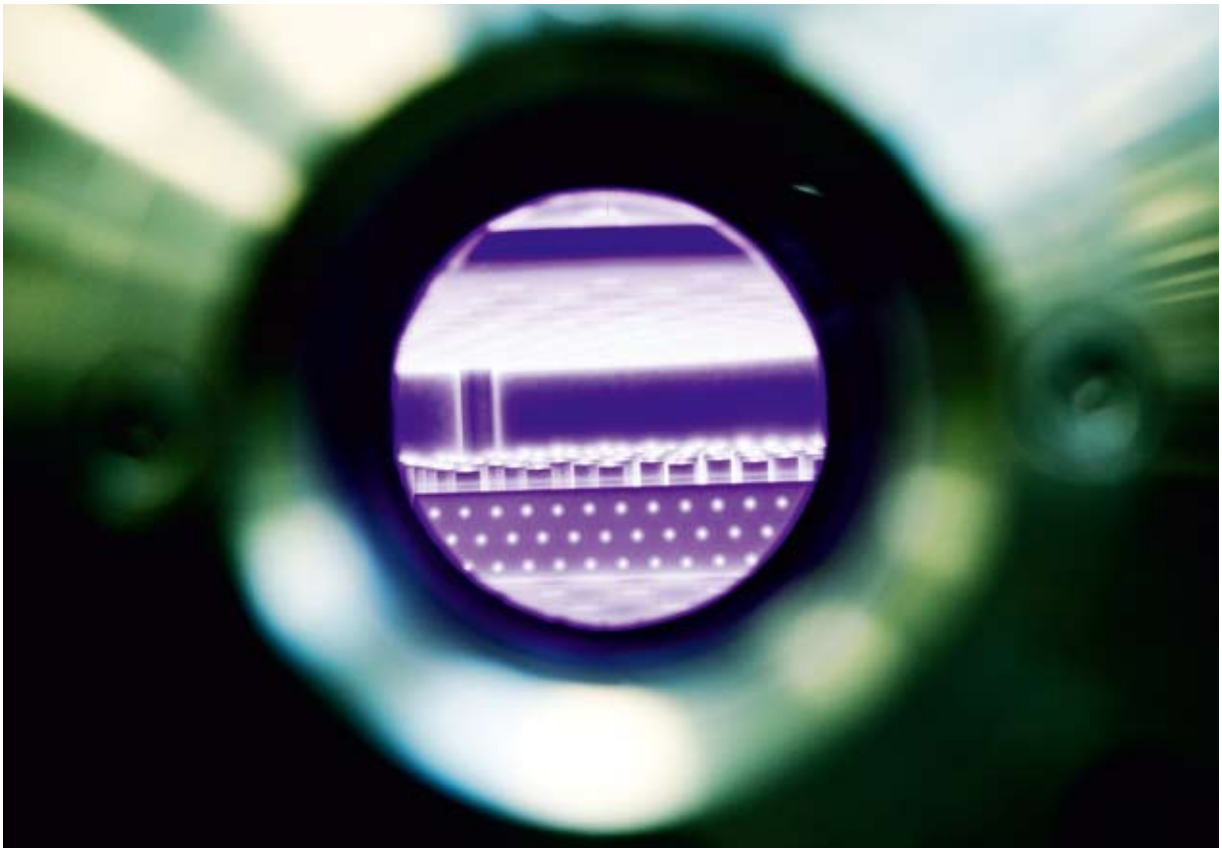
- Our ambition is that our solar cell in glass should last at least as long as a traditional solar cell, which means it should have a lifetime of at least 25 years. At the moment we are working on developing a suitable capsule for the solar cell, which can protect the cell's chemical parts, Hanne Lauritzen tells us.

The durability is being tested in the Danish Technological Institute's laboratories. Tests are also being carried out to see what effects light, UV rays, moisture and temperature variations have on the cell.

KNOWLEDGE DEVELOPMENT

PLASMANITRIDING – AN ALTERNATIVE, ENVIRONMENTALLY FRIENDLY SURFACE HARDENER

Plasmanitriding is now well-established in the metal industry thanks to the Danish Technological Institute. A growing number of companies are getting help from the Tribology centre at the Danish Technological Institute to use the environmentally-friendly plasmanitriding process for hardening the surfaces of steel and cast-iron pieces, including production tools and a number of grinding parts and machine components. The size of the treated pieces ranges from a few grams to several hundred kilos.



Plasmanitriding is a diffusion process in which nitrogen heated to temperatures of between 450 and 580°C diffuses into the metal surface forming a hard and durable layer.

There are many advantages in using plasmanitriding rather than other surface hardening processes. First and foremost using this method means that the treatment can typically be carried out at lower temperatures than with the more traditional methods. At the same time, it is possible to surface-treat a greater spectrum of materials. Finally, it is easy to carry out more local treatments.

The process itself is environmentally friendly in that only non-toxic process gases like nitrogen (N2), hydrogen (H2) and the inert gas argon (Ar) are used.

Furthermore, there are large environmental gains to be had from the fact that the surface-treated pieces last longer and the proportion of scrap and amount of re-working necessary are minimal. This in turn means that there is less energy consumption, increased productivity and reduced maintenance costs – important competition parameters on a global market.

KNOWLEDGE DEVELOPMENT

'RAPID MANUFACTURING' OF LIGHTWEIGHT METAL COMPONENTS

The Danish Technological Institute has become the first organisation in Denmark to invest in a 'Rapid Manufacturing Machine' for metal. In doing so the Institute has unique opportunities to assist companies in building complicated pieces in metal as well as co-ordinating research and development into the 'Rapid Manufacturing' of lightweight metal components for the benefit of the Danish business community.

Several European universities as well as small and medium-sized companies have joined forces in a new EU research project called 'Rapid Manufacturing' of lightweight metal components. One of the participating companies, Welltec A/S, is a Danish service company in the oil and gas sector which produces robot equipment.

- We have gone into the project with the aim of reducing production time and costs as well as boosting the possibilities for 'advanced component design', says Jesper Peter Menne Baunsgaard from Welltec A/C.

- The new 'Rapid Manufacturing Machine' for metal offers new undreamt-of possibilities to produce very complex geometric shapes built in one piece from a three-dimensional drawing, says centre manager Mogens Vig Pedersen from the centre for Product Development at the Danish Technological Institute.

The Institute is researching into how the machine can be used to design and construct new and better shapes with integrated water cooling for the plastics industry as well as special metal pieces. This could be anything from tools to hydraulic equipment, complicated parts to machines and implants.

- Right now we are investigating how the different settings on the machine affect the quality, production speed, strength and accuracy in pieces, explains product manager Olivier Jay from the centre for Product Development. He explains that the focus is on discovering the new possibilities which the technology can offer industry in the form of better functionality and increased productivity. Technically speaking, the new 'Rapid Manufacturing Machine' works at temperatures which allow it to weld the metal dust together instead of sintering it. The effect is that the pieces have the same strength as pieces produced by known traditional technology. The metal dust can be stainless steel, titanium or aluminium.

- What we can produce on the new machine is only limited by our imagination. In Denmark we need to optimise production in order to stay one step ahead of producers in the East, while at the same time ensuring that we gain access to completely new market segments – and the new machine can help us achieve this, says Mogens Vig Pedersen.

KNOWLEDGE DEVELOPMENT

DEVELOPMENT OF NEW SURFACE TECHNOLOGY INSPIRED BY NATURE

On a global scale, the cost of preventing icing-up, combating ice, and damage and energy loss from the effects of icing-up runs into billions. However nature's own elegant invention of a freezing point depressing protein found in the beetle Tenebrio molitor Linnaeus has inspired specialists from different disciplines to find a solution to the problem. The same protein is also found in certain fish and bacteria, making it possible for these organisms to survive in an extremely cold Arctic environment.

The specialists are working on developing a coating which will prevent icing-up down to -5°C and which even at lower temperatures will minimise the effect of the ice's ability to stick to the surface underneath so that it can be loosened with relatively little effort.

The work is being carried out as part of the innovation consortium 'Nanobionic Freezing Point Depressing Surfaces', which has been formed as a direct result of an industrial need for coating systems and nanoparticles with freezing point depressing properties.

Through continued industrial analysis and testing, the coating technology will become mature enough to meet the specific requirements from industries as diverse as the wind-turbine, airline, refrigeration and ventilation industries. The following commercial partners have chosen to be part of the innovation consortium:

- The wind-turbine industry is represented by Vestas Wind Systems A/S.
- The airline industry is represented by Mankiewicz Gebr. & Co., which supplies varnish to the airline industry.
- The refrigeration industry is represented by Gram Commercial A/S, Gram Equipment A/S and Lu-ve S.p.A.
- The ventilation industry is represented by Nilan A/S.

The consortium is being managed by the centre for Materials Testing at the Danish Technological Institute. As well as the Danish Technological Institute, Roskilde University and the University of Aarhus are also part of the consortium. Finally, at its inception, the consortium entered into an agreement with the Biomolecular Design of Surfaces and Materials (BIOM) group at the Fraunhofer IFAM-Department of Adhesive Bonding Technology and Surfaces in Germany involving their work with peptides/protein synthesis and analyses.

It is expected that the establishment of a scientific and industrial environment for the development of bionic solutions will facilitate the development of other new surface technologies.

As there are still countless other material-technological solutions which can draw their inspiration from nature, the existence of such an interdisciplinary nanobionic innovation consortium puts Denmark at the forefront of developing tomorrow's smart materials.

KNOWLEDGE DEVELOPMENT

CROSS-DISCIPLINARY MARKET ANALYSIS OF COMMERCIAL POTENTIAL IN NEW TECHNOLOGY

Experts from three different technical fields at the Danish Technological Institute have carried out an extensive market analysis for Grundfos New Business A/S. The analysis looked at the Grundfos Group's commercial potential for developing new business if the company gets involved with new technology developed by the Danish Technological Institute.

For a number of years, the centre for Refrigeration and Heat Pump Technology at the Danish Technological Institute has been working with sustainable technology in the field of refrigeration. The technology developed in this area can now be further expanded to include other applications in other fields than refrigeration.

One of the Institute's planned activities in the Result Contract 2007-2009 with the Ministry of Science, Technology and Innovation concerns this expansion of the technology. To that end, the Institute was hired by Grundfos New Business A/S to carry out a market analysis which focused on the most attractive possibilities and market segments for applying and selling the new technology if a development project were initiated.

- The market analysis for Grundfos New Business A/S shows that there is considerable commercial potential for the technology, but not necessarily in the application areas and buyer segments that were at first thought the most attractive, explains Ebbe Nørgaard from the Danish Technological Institute.

The Institute has drawn on competences and experience from different technical units at the Institute, including the centre for Chemicals and Water Technology, the centre for Policy and Business Analysis and the centre for Refrigeration and Heat Pump Technology. As a result, Grundfos New Business A/S now has a unique market analysis covering all aspects of the technology's technical performance coupled with the commercial potential in different areas.

- It was very exciting to conduct a technologically-based market analysis together with the Danish Technological Institute, which has such a broad range of competences covering both technology and market analysis and marketing, says Thorbjørn Machholm, Chief Investment Advisor from Grundfos New Business A/S. He adds that the project was in good hands at the Danish Technological Institute, which was very committed and professional in its management of the project. The market consultants were very good at tying the project together and providing a broad, customer-orientated solution.


12.00 HYSTER

KNOWLEDGE APPLICATION

New knowledge forms the basis for the Danish Technological Institute continuously being able to provide Danish companies with the assistance they need to meet the challenges of global competition. The Institute applies the latest technologies in combination with their broadly-based technical know-how in developing general technological services, including laboratory testing, sampling, calibration and certification.

KNOWLEDGE APPLICATION

WEB-BASED SELF-ASSESSMENT AT GARAGES WORKS

Since the beginning of 2007 all authorised Peugeot garages in Denmark have been using a web-based self-assessment system developed by the Danish Technological Institute. And experience shows that the Peugeot garages are using the results from the assessments to carry out real improvements. This in turn has resulted in fewer mistakes and more satisfied customers because the employees are motivated to do their best.

The Danish Technological Institute drew on 30 years of assessment experience in providing a modern and effective web solution which gives a unique and directly serviceable picture of an individual garage's and the individual employee's productivity and quality.

- Management gets an overview of any weak links in the service processes in several departments and can inform all the personnel in a garage or have a quiet chat with an individual employee, explains Kristian Eldam from the centre for Automobile Technology at the Danish Technological Institute, adding that the system provides the basis for a practical and constructive dialogue about quality improvement.

- In our experience, the tool ensures that management and employees can learn from their mistakes and solve tasks right first time, explains Palle Borup, technical adviser at Peugeot Bilhuset in Taastrup. He goes on to say the fact that the Danish Technological Institute follow up and make sure the self-assessment is working in all the individual garages inspires confidence in the system.

The results can be compared with a particular car make's bottom line and national results, and the self-assessment system itself can be used with a large number of the jobs that the garages carry out.

- I have come to realise that web-based self-assessment is a simple, easy and cost-effective alternative to extensive customer satisfaction surveys, says Palle Borup and continues: We get a quick response and can react straight away if a customer is dissatisfied. In the end it's how satisfied the customer is that counts, so for us it's crucial to get specific input about how we can become even better at providing the customer with the service they expect.

The Danish Technological Institute's web-based self-assessment system ensures that all authorised Peugeot garages in Denmark can become even better at providing customers with the service they expect.

KNOWLEDGE APPLICATION

BIG INTERNATIONAL DEMAND FOR DANISH TESTING OF AND CONSULTANCY ABOUT WOOD PROTECTION OF THE FUTURE

It is no longer only Danish impregnation companies and producers which are benefiting from the Danish Technological Institute's expertise in testing and advising on products and techniques for wood protection. Demand for the Institute's expertise is also coming from abroad.

Danish companies' international suppliers of active ingredients for wood protection products and large international chemical manufacturers are themselves now customers at the Institute with its attractive, hi-tech and much sought-after testing laboratory plus related consultancy services.

This success is due in no small measure to experts at the Institute developing a realistic testing method to assess the leaching of impregnation products in compliance with the VOC directive. The big international demand for the Institute's expertise is also due to the Danish Technological Institute having established an accredited research area in Malaysia. Here the tropical climate allows the Institute to carry out testing three to four times faster than other European competitors.

KNOWLEDGE APPLICATION

DEVELOPMENT, TESTING AND QUALITY ASSURANCE OF HEAT PUMPS FOR INDIVIDUAL HEAT PLANTS

After the Danish Energy Authority officially closed their testing stations in 2001, the Danish Technological Institute chose to continue a voluntary system approval scheme for heat pumps. With backing from the heat pump industry, this scheme has been progressing extremely well over the last few years.

Today the scheme covers more than 100 heat pump plants split between 18 suppliers with more joining the scheme all the time. More than 15,000 heat pump plants are sold each year in Denmark.

When the Danish Technological Institute approves heat pump plants, the products are assessed according to their energy efficiency, how the systems are built up, choice of components, expected lifetime and documentation material including installation and user manuals. The Institute also produces accredited test reports.

In addition to the system approval scheme, the Danish Technological Institute also runs a 'Quality assurance scheme for heat pump plants' financed by the Danish Energy Authority. The scheme ensures that producers, suppliers and installers can obtain advice about technical problems. The same scheme also covers among other things participation in national and international standardisation work as well as providing support in cases of international approval of Danish products.

Since 1st October 2007 the installation branch of the industry also has the opportunity to draw on the Danish Technological Institute's many years of experience in the field as the Danish Heat Pump Association (VPO) have again chosen to outsource their secretariat to the Institute. VPO is the installers' quality assurance scheme and was started in 1994 with support from the Danish Energy Authority. The scheme numbers more than 100 fitters and many of the large suppliers in the Danish market require their plants to be installed by a VPO fitter.

Finally the Danish Technological Institute is responsible for the homepage www.varmepumpeinfo.dk, which is aimed at private energy consultants, energy companies and authorities.

KNOWLEDGE APPLICATION

LARGE-SCALE OPERATION OF NIR INSTRUMENTS IN NORWAY

The Norwegian food group Felleskjøpet Agri BA is utilising the Danish Technological Institute's leading-edge platform for the control of measuring and sensor systems. The food group has decided to connect twelve existing NIR instruments to the Danish Technological Institute's DIMMS-based Model Manager Centre. This will allow the company to exploit the most effective system on the market to maintain a large number of NIR calibrations spread over eleven geographical locations in Norway.

The Danish Technological Institute will ensure that the NIR-based measuring systems always provide correct feedback in the monitoring and control of industrial food production in different parts of Norway. In practice this means that the calibrations are constantly being kept at peak performance. This is a pre-condition for the NIR to be able to control the composition of the continuous food mix production, including the content of among other things protein, fat and starch.

- We expect great things from the Danish Technological Institute's new system, says Børre Tandberg from Felleskjøpet Agri BA. He goes on to say that for Felleskjøpet Agri BA the fact that it is all one and the same system allows all the group's manual NIR instruments across different factories to communicate with each other. The highly optimised routines ensure effective and time-saving procedures for the personnel. In addition the routine loop ensures that only relevant random tests are selected for inspection and maintenance at the calibrations.

- We therefore expect that the cost of maintaining the measuring system itself will fall significantly, says Børre Tandberg. He explains that the system will also considerably ease the upcoming replacement of the group's instruments from the eighties. This is due in part to the principles in the operators' user-interface remaining the same and in part to the user-interface itself remaining unchanged for model maintenance.

The Norwegian food group has also chosen to use the Danish Technological Institute's BIDAT product. BIDAT gives a complete overview of the many measurement results produced. BIDAT can show deviations from the stated labelling across a range of finished goods. The system can therefore tell if an ingredient used has a different nutritional content than expected.

KNOWLEDGE APPLICATION

ACCREDITED TESTING FACILITIES ALSO ATTRACTING FOREIGN CUSTOMERS

The heat pump market has seen explosive growth both nationally and internationally. At the same time the requirements for documentation of the plants are increasing. For more than 25 years the Danish Technological Institute has been the only accredited testing laboratory for heat pumps and air-conditioning systems in the country.

After a thorough renovation a year ago, the Institute today has some of the world's most modern testing facilities, and in 2007 the climate chambers were used to absolute capacity. The Institute has carried out tests on 19 products in the laboratories in accordance with the European standards EN14511 and TS14825, for authorities, suppliers, producers and other interested parties in the market.

- We chose to carry out a major renovation to update the climate chambers so that they matched the new requirements in the European energy marking of climate chambers, says Claus Schøn Poulsen, who is centre manager for the centre for Refrigeration and Heat Pump Technology. He adds that this initiative has also proved attractive for customers on the European market.

Through making the processes in the laboratory more efficient the Institute has improved its position in relation to large foreign testing institutes like for example the Technical Research Institute of Sweden, TNO and Wärme-pumpen-Testzentrum WPZ. This has among other things led to a number of the larger Swedish producers choosing the Danish Technological Institute as their preferred supplier.

Danes do themselves, their neighbours and the environment a big favour when they replace their old wood-burning stoves with one sporting the new Nordic Swan ecolabel because these burn fuel much more cleanly and efficiently.

KNOWLEDGE APPLICATION

BOOM IN SWAN-LABELLED WOOD-BURNING STOVES IN 2007

The Danish Technological Institute has seen a marked increase in the number of Danish manufacturers and importers of wood-burning stoves to have their products tested in order to earn the Swan ecolabel.

All the large manufacturers, who together have a total of over 140 Swan-labelled wood-burning stoves, have now joined this special labelling scheme. This is to the benefit of the environment – for the Institute's different laboratory tests show that the Swan-labelled stoves burn even more cleanly than the wood-burning stove directive from the Danish Environmental Protection Agency requires. Several of the stoves tested have a particle emission rate which is only 50-75% of the allowed limit. With this limit being a maximum of only a few grams of harmful particles per kilo of wood a Swan-labelled stove is more than twice as good as a stove which 'only' meets the requirements laid down by the new wood-burning stove directive. This directive has only recently been agreed and the requirements come into force from the 1st June 2008. The goal is to reduce the amount of harmful particle pollution produced by the 600,000 wood-burning stoves there are in Danish homes. The new legislation covers the sale of new stoves as well as old second-hand stoves, which also have to go through a laboratory test to certify that they comply with the new particle requirements.

KNOWLEDGE TRANSFER

Ensuring effective knowledge transfer is one of the Danish Technological Institute's most fundamental tasks. In collaboration with private companies, large as well as small and medium-sized and with organisations and public customers, knowledge is transferred through consultancy, education and training, and networking activities. The Institute's activities involving the transfer of knowledge thus cover everything from courses, secretariat services and operator tasks to one-off and tailor-made consultancy services.

KNOWLEDGE TRANSFER

LEARNING PARTNER OF THE YEAR 2007

The Danish Technological Institute has been nominated Learning Partner of the Year 2007 by Microsoft Denmark ApS. This is because the Institute is an organization that always provides an excellent and well worked-through product, and where technical professionalism always enjoys the highest possible priority.

- Moreover the Danish Technological Institute has been able to increase its training business at Microsoft and has displayed great creativity and commitment when working together on campaigns and events, enthuses sales director Bjarne Riis from Microsoft Denmark ApS.

The Danish Technological Institute has put a lot of effort into advising customers about opportunities for free training as a part of the Microsoft licence agreement. On top of that the Danish Technological Institute has shown their flexibility and professionalism in their work with the Microsoft Office Academy – a project aimed at training young people who want to work in the IT industry.

- That's why I'm very happy that we nominated the Danish Technological Institute Learning Partner of the Year, says Bjarne Riis.

KNOWLEDGE TRANSFER

NEW PORTAL A BOOST TO THE BEAUTIFUL AND VISIBLE CONCRETE SURFACES OF THE FUTURE

Many people associate concrete buildings with something grey, boring and monotonous. But concrete surfaces can also be inspiring, stimulating and even beautiful to look at. This is what a cross-disciplinary development project has focused on with the launch of the new Danish portal 'synligbeton.dk'.

The Danish Technological Institute was project co-ordinator for the three-year development project 'The visible concrete surface – improvement and renewal of concrete's aesthetic qualities'. The project was carried out together with 11 companies and knowledge centres representing all phases of the building process. The project, which was completed at the beginning of 2007, received EUR 0.2 million in subsidy from the Realdania Foundation.

As a culmination of the project's cross-disciplinary collaboration, a seminar about the beautiful concrete surfaces of the future was held in the autumn of 2007 for professionals from the construction industry including building owners, consultants, concrete producers, construction companies and architects. In this context the main result from the project – the web portal synligbeton.dk – was launched. The new portal includes an ideas catalogue and toolbox. The ideas catalogue highlights the many different possibilities concrete offers for surface structuring. The toolbox contains instructions, guidelines, checklists and other aids to enable construction partners to define the desired surface and have their ideas realised in a concrete construction.

- The portal collates and disseminates knowledge about how we can make more attractive concrete surfaces which we can actually bear to look at and which meet all our requirements for concrete surfaces, says Dorthe Mathiesen from the Danish Technological Institute. She was the manager of the project and hopes that the portal will promote the creative use of concrete in building and provide inspiration for a dialogue between construction industry partners in the preliminary building phases, during construction and in the maintenance of concrete constructions.

The Danish Technological Institute has received many positive signals that there is a future for the portal and that there is support from all quarters of the construction industry to take it further.

- The great advantage is that the portal provides an opportunity to harmonize expectations between all parties in the building process, from the very first idea to the completion of the building project, says architect Mette Seiding from Dall and Lindhardtsen Arkitekter A/S. As an architect she can draw inspiration from the portal and convey her ideas to a client in a way that would have been impossible before. Engineer Niels Thorslund from MT Højgaard A/S is also very enthusiastic about the new portal.

- As a building constructor I can use the tools on the portal when I collaborate with people from across the whole construction industry, for example architects and clients, and when I have to order materials. Then I can get help to, for example, have a tree-like structure constructed on a concrete surface, says Niels Thorslund.

Partners who have contributed to the new portal 'synligbeton.dk' are:

Danish Technological Institute (project co-ordinator)
Aalborg Portland A/S
Aarhus School of Architecture
Lundgaard & Tranberg Arkitektfirma A/S
Betonelement-Foreningen
MT Højgaard A/S
BASCON A/S
DALTON Betonelementer A/S
Betonelement A/S
Skanska Danmark A/S
Danish Road Directorate

KNOWLEDGE TRANSFER

OPTIMAL PLANNING OF BUTTER PRODUCTION AT ARLA FOODS

Arla's Holstebro Dairy picked the Danish Technological Institute to help them strengthen the planning department and get a new IT system up and running and new employees trained up via Lean. After only three months the company started to see positive results in the form of more effective planning and improved production.

Arla Foods' Holstebro Dairy is northern Europe's largest butter dairy. The company produces around 100,000 tons of Lurpak Butter and Kærgården for both the Danish and international markets. Production planning is complicated as the dairy has about 250 different item numbers.

- Production planning at our company is something of a jigsaw puzzle. Experience has taught us that we can improve communication between planning and production by using Lean principles, explains dairy manager Rene Fredgaard. He adds that Lean thinking caught on immediately among the employees, who quickly got used to using the Lean board to solve acute problems.

- Lean thinking has inspired us to make improvements. Everyone was listened to and everyone's skills utilised. We have also got a better understanding of each other's jobs, says production planner Mette Winther Martens.

Arla Foods' Holstebro Dairy rolled out Lean in the autumn in the whole production area with consultancy support from the Danish Technological Institute.

- We have started up our own Lean organisation and have now got production to a position where they can run themselves, says production manager Lene Frederiksen. She explains that all managers have been trained in implementing the Lean principles in close dialogue with employees.

- We found that the consultants from the Danish Technological Institute were very good at showing empathy and understanding exactly what we needed, says Rene Fredgaard.

KNOWLEDGE TRANSFER

STUDENTS BOOST INNOVATION

Together with LINAK Denmark A/S the Danish Technological Institute launched a big innovation competition in September 2007 for young students who consider themselves budding inventors. The collaboration was initiated in 2006 as a result of a similar competition. The Institute's contribution includes planning, contacting participants and acting as an impartial party in the competition's secretariat.

The competition is split into two, one for university students and one for production technologists. The challenge consists of finding new innovative applications for electrical actuator technology in the products of tomorrow. The ideas are assessed among other things on how innovative they are and how far they represent a new way of thinking.

- Innovation is trendy. There is talk of idea development everywhere – but the fact is that we in Denmark are simply not good enough at innovation, says Business Development Manager Claus Rode from LINAK Denmark A/S. He believes that a number of initiatives still need to be put in place if Denmark is to compete on a global scale. First and foremost we need to ensure that idea development and innovation become a natural part of the day to day thinking at educational institutes, both in the teaching and in the exams. Students have to be trained to use innovation as a tool when they meet an apparently unsolvable problem.

- With this competition we aim to focus on the fact that there is a wealth of untapped potential in young people, who should be challenged to think in untraditional and creative ways already before they enter the job market, says Claus Rode.

There was great interest in the competition with 70 students sending in their ideas. The winners of the competition were announced on 28th February 2008. The main prize was an innovation trip to China which was won by Brian Pjedsted for his invention X-Ramp – an electrical stairway ramp that wheelchair users can activate and fold out themselves. Henrik Fensmark Hansen and Morten Drachmann also won a trip to China.

KNOWLEDGE TRANSFER

RECORD PIPE CENTRE DAYS EXHIBITION

With 74 exhibitors and 2,500 square metres of exhibition space the Pipe Centre Days exhibition held on 13th and 14th June 2007 was the largest exhibition of drainage products ever in the history of the Danish Technological Institute. The first Pipe Centre Days exhibition was held in 1985, and the event has since become a permanent tradition in the Danish water and drainage industry.

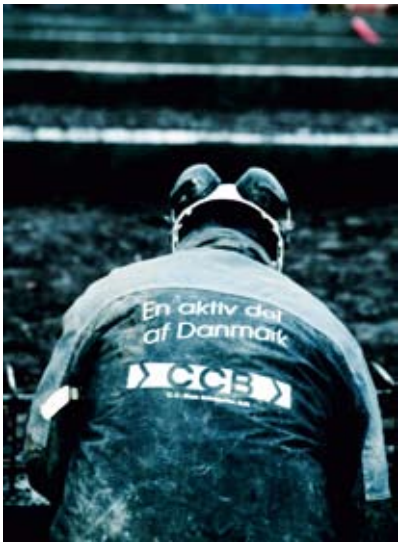
The event takes place every other year, and again this year there was strong support for the exhibition. The good weather attracted a lot of visitors to the biggest exhibition ever at the Danish Technological Institute. Along with the exhibition, eight professional conferences were held dealing with current technical drainage topics, which were equally well attended. This year there was focus on among other things what the climate changes and heavier rainfall will mean for drainage systems.

- The Pipe Centre Days exhibition is our biggest event – two very exciting days which we look forward to because we get to meet our clients in a somewhat more informal way and can strengthen our networking with dealers, producers and other customers, says centre manager Ulrik Hindsberger from the Danish Technological Institute's Pipe Centre.

The Pipe Centre has already reserved stands for 37 companies wanting to exhibit at the Pipe Centre Days exhibition on 17th and 18th June 2009, which is when the event will next take place.

KNOWLEDGE TRANSFER

WORK-RELATED ACCIDENT RATE IMPROVED WITH COURSES



The Danish Technological Institute is holding working environment courses to change attitudes on building sites for companies in the construction and civil works industry. The idea is to motivate everyone to accept their share of the responsibility for safety on site – and this is paying off.

Safety is not merely a question of work instructions and physical protective equipment. It is also important to have knowledge and care – the brain and the heart – as part of the process. This means that everyone on site is consciously aware of when dangerous situations arise and how they can be prevented. In order to help the process along, Torben Halby from the Danish Technological Institute travels round the country holding two-day courses in the working environment and health and safety at the workplace. He has a wealth of experience with these types of courses, typically held with groups of 20 participants at a time.

- The participants choose the content of the course themselves so that they get something directly practical out of the course that they can work further with. This process is extremely important, Torben Halby stresses.

The construction company C.C. Brun Enterprise A/S is just one of the many companies that have benefited from sending employees on courses in working environment and safety. It is now over a year ago that the company has had any work-related accidents. Employees have been updated on the safest ways to use trucks, cranes and scaffolding.

- We had a bad experience about a year ago when the company was hit by a serious accident on one of our building sites – but as a result we sent our employees on a course led by Torben Halby, says managing director Kristian Lind from C.C. Brun Enterprise A/S. On top of that the company has invested in proper high quality gear and tools for the employees.

- Torben understands and speaks 'worker language'. He creates a natural opportunity to start a positive and useful dialogue with the employees. Using humour he gets them to change their attitudes and behaviour and to take responsibility for their working environment and health and safety, says Kristian Lind, adding that the effect of the courses can also be seen in the company's bottom line.

In 2007 the Danish Technological Institute held 46 two-day courses in working environment and health and safety for companies in the construction and civil works industry. The participating companies have subsequently either noticed a marked decrease in the number of accidents or have not had any accidents since at all.

The Danish Technological Institute is an approved working environment consultant. The Institute's consultancy service is based on combining a lot of knowledge of the industry with considerable knowledge of working environments.

KNOWLEDGE TRANSFER

DANMARKS VÆKSTLAG™ SURVEY INFORMS OFFICIAL DEBATE

For a couple of years the Danish Technological Institute has been running the survey ***Danmarks Vækstlag™*** *in which 1,000 directors from innovative and knowledge-intensive small and medium-sized companies has been regularly interviewed about current affairs issues. The survey is quoted in the national media from Ingeniøren, an engineering trade magazine, and daily newspapers Berlingske Tidende and Jyllands-Posten to business newspaper Børsen.*

In 2007 the survey **Danmarks Vækstlag™** was quoted in the press in sectors such as energy, innovation and further education and training. One result – which was echoed in the Danish media in May – was that less than one out of three companies takes account of energy consumption when they develop new products: only if customers demand sustainability does energy consumption appear on the company's agenda.

Over the summer of 2007 a story about innovation appeared in Børsen. The background to the story was that the results of a survey showed that the companies in the business sector's growth class were good at listening to customers when they were developing new ideas. But the results also showed that management listen more to themselves than to their employees. The Danish Technological Institute's experts in innovation and development in small and medium-sized companies therefore concluded that employees represented an untapped potential which management should include in the company's creative innovation processes.

- It would be very odd if the boss of a company with 50 employees was always the one thinking up the best ideas. 50 brains must be able to come up with at least as many good ideas. So management should remember to be open and listen to employees, project manager Casper Littrup from the Danish Technological Institute believes.

Adult and further education and lifelong learning is high on the political agenda because it is through education and knowledge that Denmark will be able to compete on a global scale. But figures from the survey **Danmarks Vækstlag™** have indicated that two out of three knowledge-intensive small and medium-sized companies are not aware of the full range of public education and training courses available. This story also came under the media spotlight.

KNOWLEDGE TRANSFER

DEVELOPMENT OF SOLAR HEATING EDUCATION IN IRELAND

Over the last three years the Industry and Energy-division at the Danish Technological Institute has been the key player in the development of solar heating education in Northern Ireland and the Republic of Ireland. The training has been developed in collaboration with the Danish Energy Authority and the advisory consultancy company Action Renewables in Ireland.

The development of solar heating courses forms part of a larger project concerned with the implementation of renewable energy in Ireland. The courses are aimed at turning electrical fitters into certified solar heating fitters. The Danish Technological Institute has been responsible for building up the training facilities at two training centres, developing course material and training the trainers at the centres. In order to be able to do this, the Institute's employees have been certified by BPEC (Training) Ltd. in Edinburgh to train trainers at the centres in Northern Ireland.

KNOWLEDGE TRANSFER

DANISH TRAINING FOR POLISH BUSINESS LIFE

In 2007 the International Centre expanded the already considerable number of activities related to business development training for small and medium-sized companies in Poland. These efforts were made in close collaboration with the Institute's Polish partner FIRMA 2000 Sp. z.o.o.

Two major training projects have been carried out for the Polish Agency for Enterprise Development. One involves a programme for newly started companies in five regions in eastern Poland. The other covers training with regard to increasing innovative skills among small companies over the whole of Poland. Altogether more than 4,000 companies have taken part in the training, which has altogether totalled 35,000 individual training days. Both projects were financed through funds from the European Social Fund and the Polish state budget. With these successful projects under its belt and the huge forthcoming 2008-2013 programme for business development in Poland, the Institute is in a good position to continue expanding its Polish activities in close collaboration with the Institute's Polish partner FIRMA 2000 Sp. z.o.o.

KNOWLEDGE TRANSFER

THE DANISH TECHNOLOGICAL INSTITUTE AND COWI A/S TOGETHER IN EGYPT

The Egyptian Pollution Abatement Project, EPAP 2, is working with environmental conditions in Egyptian industry. The project was tendered by the European Investment Bank and was launched in the summer of 2007. It is expected to be completed in 2012. COWI A/S and the Danish Technological Institute are together responsible for the administration of the project, with COWI A/S acting as head of the consortium.

There are two main goals with the project:

- To support Egyptian industry with investments that can help companies keep within environmental legislation relating to waste, waste water and air pollution, also taking into account continued economic growth and protection of people affected by pollution.
- To support the Egyptian Environmental Affairs Agency and its regional offices to effectively administer EPAP 2 and other similar environmental projects.

The project has a loan and subsidy fund of USD 160 million at its disposal, financed by the World Bank and the European Investment Bank together with additional funds from Japan and France. Companies apply for loans and subsidies from the fund based on an environmental assessment of their production processes. The applications are then assessed by the project management department in the Egyptian Environmental Affairs Agency. The investments in industry can take the form of new or changed process equipment or 'end-of-pipe' solutions such as filters and cleaning plants. The project management department consists of 13 Egyptian employees and a permanent international consultant. Other international experts are regularly called in to provide training and support on technical and administrative issues.

A thorough and impartial investigation into the extent of an attack of mould in a building requires technical building know-how plus micro-biological knowledge – the Danish Technological Institute has both.

KNOWLEDGE TRANSFER

GROWING DEMAND FOR KNOWLEDGE ABOUT MOULD IN BUILDINGS

During 2007 the Danish Technological Institute saw an increasing number of referrals from professionals in the field concerning the prevention and remediation of mould in buildings.

Experts from the Danish Technological Institute have been busy holding conferences about mould fungus and advising building owners, housing associations, insurance companies, etc. about how to prevent damp and mould in houses and new buildings before any damage occurs, as well as helping to solve problems when damage has occurred. For example the Institute has advised the Danish Non-profit Housing Association and the property company Compass A/S about mould problems in new buildings. When Compass A/S took over a new building to rent out, it turned out that the property was rife with damp and mould. The company contacted the Danish Technological Institute for advice and support to investigate the extent of the problem. The consultants from the Institute gave instructions on what repairs needed to be done and carried out regular inspections of the building during renovation, finishing off with a final inspection to make sure that the property was completely free of damp and mould after the remediation.

- We had a really good collaboration with the Danish Technological Institute, and as a result we no longer have any problems with damp and mould in the property. Moreover, we have generally become much more informed about problems with damp. We have gained invaluable knowledge about how to prevent the problem from occurring by building correctly, carrying out regular inspections and dealing with moisture and water damage quickly to prevent further long-term damage, says department manager Susanne Andersen from Compass A/S.

- With new buildings it is important that materials and constructions do not get wet during the building period, that drying times are adhered to and that the building is dehumidified if necessary before being put to use, explains mould fungus expert Carsten Johansen from the Danish Technological Institute.

KNOWLEDGE TRANSFER

NEW ONLINE CALCULATION PROGRAM IN ENGLISH ATTRACTS INTERNATIONAL INTEREST

The Danish Technological Institute is a leading player in the field of masonry. In collaboration with the Danish chalk and tile works association 'Kalk- og Teglværksforeningen af 1893', the Institute can supply the only online calculation program in Europe, 'Masonry Project Management'

The Institute's latest new initiative is the development of an English language version of the Danish program version 5.0. The Institute is witnessing increasing foreign interest in the program which is aimed at consultant engineers, architects and others involved in the project management and dimensioning of masonry work.

- The new calculation program represents a significant enhancement of the program which was developed and launched in its first version in 1993, says Tommy Bisgaard who is managing director of the 'Kalk- og Teglværksforeningen af 1893'. He explains that there are significantly more modules in the new program and that it is more user-friendly. At the same time the program complies with the international norms in Eurocode 6.

The program contains 12 calculation modules: calculation of loads, combination walls, transverse stressed rectangular walls, canted walls, vertically stressed brick walls in accordance with Ritter, vertically stressed walls in accordance with Eurocode 6, vertically stressed element walls, binders, facing walls, plates, tile bars and arches. A calculation module has also been implemented that determines the strength parameters for different combinations of bricks and mortar.

So far 130 Danish consultant engineering companies have bought subscriptions to the program. Included in the subscription is access to technical support from the Danish Technological Institute via mail or telephone.

- We are very happy about now being able to offer the new calculation program to the masonry industry in Europe, says civil engineer Poul Dupont Christiansen from the Danish Technological Institute. He explains that the program will also be made available in other languages. The common European norms and calculation methods are now going to be introduced in Brussels for professionals who are later going to hold courses to introduce the common European norms in their home countries.

The program was used to project manage the new playhouse in Copenhagen, which opened in February 2008.

KNOWLEDGE TRANSFER

SCHUR PACK DENMARK A/S KEEPS ITS TASTE PANEL SHARP

Cardboard packaging producer Schur Pack Denmark A/S wants to be sure that packaging for foodstuffs does not leave an after-taste in the food. Therefore the Danish Technological Institute has trained the company's tasting panel.

Schur Pack Denmark A/S does not want to run the risk that the company's food packaging affects their customers' products by leaving an after-taste. The packaging company has therefore used the Danish Technological Institute's know-how and experience in the field to train their internal tasting panel. This panel has to continually test whether new packaging from Schur Pack Denmark A/S leaves an unwanted after-taste in various test products.

- We have had help in systematising and organising the tasting panel's work to ensure that all the participants on the panel train their taste buds every week so that they keep their sense of taste sharp, says quality and environment manager Svend Ellegaard of Schur Pack Denmark A/S.

Fourteen employees from Schur Pack Denmark A/S have completed an education and training course with the Danish Technological Institute's foodstuff experts in Kolding. The course includes an examination of each individual's ability to distinguish basic tastes from each other and training in noticing after-tastes in food products. In addition, the Danish Technological Institute has trained five panellists who from now on can take over training the panel.

KNOWLEDGE TRANSFER

NEW INNOVATION CENTRE BOOSTS COMPANIES' USE OF IT

The Ministry of Science, Technology and Innovation and the Danish Agency for Science, Technology and Innovation have established a new innovation centre, the IBIZ-Center, as a three-year initiative. The centre is being run in collaboration between the Danish Technological Institute and DELTA - Danish Electronics, Light and Acoustics.

The most important mission for the new innovation centre is to make IT comprehensible and accessible for small and medium-sized companies so that they benefit from new IT based systems.

- At the IBIZ-Center we break down small and medium-sized companies' barriers against utilising IT in their business processes by increasing their knowledge about eBusiness, says centre manager Ebbe B. Petersen from the IBIZ-Center.

In 2007, the new innovation centre held workshops and conferences about eBusiness. In addition, the IBIZ-Center is to launch the so-called DanmarksTuren for the first time in April 2008, when the centre will visit 20 municipalities with an exhibition trailer in which they will demonstrate different eBusiness solutions. At the same time there will be workshops for companies, consultants and key business players.

- In order to give small and medium-sized companies more opportunities for hands-on demonstrations we have two innovation workshops and a demonstration room with facilities to enable us to give real-time demonstrations, explains Ebbe B. Petersen.

Together with private eBusiness consultants, the IBIZ-Center is in the process of setting up a start-up course, which provides a safe and easy environment for small and medium-sized companies to gain experience with consultant support for eBusiness development.

- We are helping to boost the companies' know-how and use of public eTrade initiatives, including for example the National IT and Telecom Agency's new eBusiness tool called NemHandel, which makes it just as easy to send an eInvoice as to send an eMail, explains Ebbe B. Petersen.

KNOWLEDGE TRANSFER

UNUSUAL RENOVATION OF ARCHITECTURAL PEARL

In Gentofte, the town's old but beautiful indoor swimming pool, Kildeskovshallen, needs extensive renovation. After over 40 years of uninterrupted operation in the harsh environment a swimming pool creates, the concrete constructions in the pool and water treatment system are worn out. The municipality has therefore decided to ask the Danish Technological Institute to investigate and renovate the building and technical water treatment installations.

Kildeskovshallen was designed by the architect couple Karen and Arne Clemmensen and built in the period 1966-1972. It is different to other indoor swimming pools as it was built from high-quality materials, coupled with the fact that it also boasts works of art built into the construction. For example, there is a gigantic geometric abstract painting in the colours blue, white and red in the outdoor paddling pool. At the time it was built, the swimming pool was considered a very hi-tech building. Kildeskovshallen has therefore been assessed as having architectural value and today it is a listed building.

- We think of it as a kind of architectural pearl. Therefore in the forthcoming renovation work we have to preserve rather than alter it, which naturally means that we have to be extremely careful in both the project management and renovation phases, explains Frank G. Bennetsen from the centre for Swimming Pool Technology at the Danish Technological Institute.

The project is EU-tendered and the renovation phase itself is set for 2008 and 2009. The Danish Technological Institute's role in this imminent major renovation project is to be in charge of project management and the tendering of the technical water treatment work. This involves extending and modernising the water treatment installations and the circulation systems for the three original pools. In addition, the existing sand filters require extensive renovation. The renovation work is to optimise the filter areas and cleaning capacity in accordance with the current norms and authorities' requirements. The goal is to achieve elegant technical and energy-optimising solutions as well as providing more effective cleaning of the water in the building's three original pools.

KNOWLEDGE TRANSFER

MOTIVATED EMPLOYEES CREATE GROWTH AND QUALITY

After nine months with Lean the cheese powder producer Lactosan A/S was able to report growth of 15% and highly motivated middle managers and operators.

With support from Lean experts at the Danish Technological Institute, the company Lactosan A/S has got their 100 employees at their factory in Ringe to take more responsibility, exercise more influence and feel that they have more ownership in the company's processes.

- It should be both fun and satisfying to work for Lactosan A/S. Using the Lean principles to include the employees more in production has resulted in greater commitment and enthusiasm, which in turn creates value for the company, says managing director Jørn Frandsen.

Lean also creates more order and frees up time for the middle managers who can now work on larger tasks and new projects. Works manager Connie Schmidt Hansen has noticed that it has become easier to find the time to carry out day to day improvement initiatives.

- Via the whiteboard meetings, I've got a much better overview so that I can now always find the employees and the things I need. I can also see that the employees are thriving on taking greater responsibility for getting things up and running. That means I have the space and time for example to attend to mark out floors for trolleys, number shelves and attend to the item placings on the shelves, says Connie Schmidt Hansen.

From now on the plan is to continue to use Lean to increase the efficiency of the company's production of cheese powder. One of the points on the agenda is to simplify the item range, which at the moment numbers 200 different cheese powders. Another point is to develop a new system to handle the increasingly strict labelling requirements that Lactosan A/S has to comply with in its various markets.

KNOWLEDGE TRANSFER

EUROPE'S FUTURE LEARNING ENVIRONMENTS DESCRIBED BY THE DANISH TECHNOLOGICAL INSTITUTE

In 2006 and 2007 the Institute facilitated a development course as part of the European Commission's 'Institute for Prospective Technological Studies' in Seville. This work has resulted in providing a good indication of the future scenarios for learning environments in Europe in 2017.

As knowledge becomes an ever more important competition parameter, there is more and more political focus on how we can create attractive and effective learning environments in the future. In collaboration with a number of experts from all over the world the Danish Technological Institute has developed a futuristic scenario of a learning-intensive society through the creative use of different technologies plus input from the latest knowledge from brain research.

The Institute held a workshop in Paris which was attended by education and IT experts from all over the world as well as keynote speakers from the European Commission. The workshop's goal was to refine and validate the conditions that can influence the direction development was likely to go in.

A scenario backcasting technique was used to identify the development which could lead to the most optimal learning environment in the Europe of the future. Finally, the work identified current political initiatives which could help towards realising the goals for the learning environments of the future. There is already a lot of interest, also from abroad, in working further with the scenarios as tools in the formulation of new political initiatives.

KNOWLEDGE TRANSFER

NEW SPACE INDUSTRY CLUSTER ON WAY TO NEW HEIGHTS

Space travel should form part of the political agenda as the space industry is one of the most important high technological growth areas in Denmark. This is what 19 visionary companies and seven of the country's foremost knowledge institutions believe. Together they have all formed a network in order to attract larger space-related projects to the country.

Every year Denmark subsidises the European Space Agency, ESA, with almost EUR 30.0 million. Part of this investment is won back through the geographical return principle in the form of orders which ESA places with Danish companies. The orders cover communication, navigation, remote measuring, observation, development of materials and instruments, autonomous systems, medical development and monitoring.

- We have taken the initiative to set up this space cluster because Danish companies can benefit from working together on getting orders for space-related development projects which are up in the millions of euro bracket, says chief consultant and project manager Erik Villemoes from the Technology Partnership, which includes the technical secretariat for the space industry cluster.

One of the companies taking part in the space industry cluster is Innoware A/S, and director Bent Christensen explains that one of the most important reasons for taking part is to stimulate political interest in space travel and the space industry in order to be able to attract more earmarked funds for growth for the industry.

- Political focus is very important if more Danish companies are to have a chance to get into this very unique market. Without political visions and objectives for the commercial potential there is in getting involved in diverse space projects, we are not going to get anywhere. Just submitting a tender to the ESA is a costly affair which can easily cost EUR 20,000-40,000, so it is important that all pre-conditions are in place before you start, says Bent Christensen.

He believes that Danish companies in collaboration with the research institutions can bring in more, and far more challenging, space projects if a national programme is established which focuses on business and research competence development with regard to commercial exploitation. A national programme could function as a springboard for new companies to be considered for ESA projects. The ESA estimates that the Galileo satellite navigation program alone will create 150,000 new jobs in the EU over the next ten years. Galileo is just one of nine space programs that the ESA is putting out to tender.

So far the space industry cluster includes the following companies: Anmaras A/S, Atomistix A/S, CemeCon A/S, Damptech A/S, Eumann A/S, Flux A/S, GomSpace, Homatic A/S, Innoware A/S, Kirkholm A/S, Mjølner Informatics A/S, Noliac A/S, Ohmatex ApS, Quilts of Denmark A/S, Rovsing A/S, Subconsult, Systematic Software Engineering, Terma A/S and Xperion Advanced Composites Engineering A/S.

Participating knowledge institutions are: Aalborg University, University of Aarhus, Aarhus School of Business, the Alexandra Institute Ltd., the Danish National Space Center, FORCE Technology and the Danish Technological Institute.

Junckers Industrier A/S has achieved significant savings in their energy consumption thanks to the Danish Technological Institute.

KNOWLEDGE TRANSFER

ENERGY OPTIMISATION AT JUNCKERS INDUSTRIER A/S

The centre for Energy Efficiency and Ventilation at the Danish Technological Institute has embarked on a programme to optimise the energy consumption from a number of process lines for Junckers Industrier A/S – Europe's largest producer of parquet and wooden floors, and who also produce the well-known Junckers floor lacquers and oils. In 2007 the Danish Technological Institute achieved energy savings of 58% on two production lines – the equivalent of EUR 47,000 a year.

The group employs around 450 people and has a turnover of about EUR 94 million. Junckers Industrier A/S is represented all over the world through a network of sales companies and dealers.

- We really appreciate the advice the Danish Technological Institute gave us about how we could reduce our energy consumption in production. The knowledge is indispensable for us, especially as the advice also included an implementation part together with an engineer from the Institute, says department manager in production service Peter Pinholt from Junckers Industrier A/S. He adds that there is an extra plus in that the improvements in energy efficiency can be carried out without Junckers Industrier A/S' own operations department having to increase their manpower resources.

KNOWLEDGE TRANSFER

IT GURU IN COPENHAGEN

In the Danish autumn holiday (week 42) the Danish Technological Institute had the pleasure of presenting one of the really big American IT gurus, Michele Leroux Bustamante, to a Danish audience.

For the first time in the Institute's history a full day's workshop was held on internet technology. The event '.NET Technology Road Map – Making Sense of The Technology Avalanche', was a huge success and attracted more than 70 participants. The American IT guru gave his audience an insight into his extensive research into the subject.

KNOWLEDGE TRANSFER

INCREASED PRODUCTIVITY AND COST SAVINGS

A hundred improvements implemented. Total savings of EUR 40,000 a year. Increased productivity combined with a dramatic reduction in turnaround time. These are the results so far of a Lean project at Senmatic A/S, a company which produces advanced electronic products and sensors for among other things temperature measurement.

Senmatic A/S in Odense uses Lean to boost their competitive edge on the tough OEM sensor market. To start with the company's almost 150 employees received help from the Danish Technological Institute's Lean experts to use tools such as 5S, clear-up, order and systematics as well as whiteboard meetings aimed at continuous improvement. The company is by no means finished with using Lean.

- Producing sensors has now almost become a sport. In the beginning there was a somewhat sceptical attitude towards Lean, but after a couple of weeks the picture changed completely. Today we can see the difference even in our own physical well-being, explains co-ordinator Inge-Lise Neesen.

She and her colleagues greatly appreciate the fact that it has become much easier to carry out the production work. Before, employees moved the different sensors round backwards and forwards across the production area. Today the individual employee has a much better overview of the production process and wastes less time on transport thanks to the so-called U-cells, named after the workplaces being arranged in a U-shape. These cells make it possible to reduce handling time and the amount of internal transport necessary.

- It's important for the motivation of the employees that they feel they can make a difference by becoming involved and taking an active part in the practical improvements in the work processes, says Mona Andersen from Senmatic A/S. Her experience is that all employees are willing to put a lot of effort into their work and therefore need to see actual production figures in order to know how production is going.

KNOWLEDGE TRANSFER

LEDERUPDATE – NEW DANISH NEWSLETTER BY MANAGERS FOR MANAGERS

The Danish Technological Institute is behind a new newsletter about management. The newsletter first saw the light of day in September 2007 when it was sent out to 2,000 managers. After only two issues the readership was up by 30%.

LederUpdate is published ten times a year in eMail form and reports on the latest trends and views on management and personal development.

The newsletter gathers together the threads in the interface between research and practice - and brings the essence of management in Denmark directly to the subscribers.

In each issue, Paul Evans, professor of Human Resources and Organisational Development at INSEAD, presents the big picture on the international scene, while management expert Tune Hein from Hein Degn & Partners A/S provides a commentary seen through Danish eyes. The newsletter also includes news about current courses and training for managers.

The first issue focused on Lean and management, while the second issue was about management as a brand.

KNOWLEDGE TRANSFER

ADVANCED ROBOT TECHNOLOGY NETWORK ENHANCES GROWTH IN INDUSTRY

Danish robot companies are having an impact on Danish industry in the nationwide 'RoboCluster SupplyNet'. The companies are all pulling together and helping each other by swapping key competences.

The network is giving industry a real boost in the form of higher technological standards and more innovative and sophisticated robot and automation solutions, which from a technological viewpoint are at the cutting edge of current developments even from an international perspective – solutions which will meet future demands for efficient and flexible production.

- Instead of companies having to be able to do everything themselves, they can increasingly concentrate on what they are best at and through working together with other companies provide complex customer solutions, says Claus Risager, manager of the centre for Robot Technology at the Danish Technological Institute.

'RoboCluster SupplyNet' stems from a robotics collaboration between RoboCluster and the Danish Technological Institute. The network is made up of 30 hi-tech, Danish commercial companies working on the integration of robots, equipment and software or supplying other types of production equipment.

- Through RoboCluster, SupplyNet suppliers gain direct access to major research and knowledge institutes, explains Lasse Mogensen, director of RoboCluster. He goes on to say that this network means that some of the industry's leading researchers and technology developers can work closely together on developing advanced and innovative robot and automation equipment.

Altogether the members of the network cover more than half of all the installed robots in Denmark. Per Krogh Terkelsen, director of the company Martin Hansen A/S, has been in the network from its inception in 2004.

- I can't really imagine being without the network today. Customer solutions are so complex and require such a wide range of specialist technical competences that it would be impossible for us to solve all types of task alone, says Per Krogh Terkelsen.

One of the results of the network is that a number of the participating companies are now actively engaged in business-oriented research and development projects, including the hi-tech platform HANDYMAN, which is subsidised by the Danish National Advanced Technology Foundation.

KNOWLEDGE TRANSFER

ONE OF THE WORLD'S LEADING MANAGEMENT GURUS RETURNS TO DENMARK

For the second time, the Institute brought HR and management guru Dave Ulrich over to Taastrup. He had said yes to leading a theme day on 'Leadership Brand' in November 2007.

120 managers gathered at the Danish Technological Institute to hear about the latest trends in management. Dave Ulrich, professor at the University of Michigan, took as his starting point his latest book: 'Leadership Brand'. He is regarded as one of the world's leading experts in the field of human resources and management development and has published more than 100 articles and 13 books on the subject.

KNOWLEDGE TRANSFER

MICROSOFT CHOOSES THE DANISH TECHNOLOGICAL INSTITUTE AS PROVIDER OF IT TRAINING

At the request of Microsoft Danmark ApS, the Danish Technological Institute has developed and is now running a new IT education and training programme, Microsoft Office Academy. The programme finds jobs for unemployed academics and solves companies' problems in trying to get qualified employees.

The total training period is five months, consisting of 42 days covering theory. The goal with the training programme is that the candidates can:

- Pass three chosen Microsoft certifications.
- Translate knowledge into a product which will be of value to the customer.
- Communicate with the customers.
- Understand and use Microsoft products as solutions.
- Work on disseminating knowledge about Microsoft products and the selling of them.
- Lead projects so that they are deli-vered on time at the agreed price.

The training programme was set up in order to meet the problem of a shortage of IT people at Microsoft Danmark ApS' business partners. Candidates are for the most part recruited from among newly graduated academics who are selected and tested by the recruitment company Mercuri Urval A/S.

To kick off the programme, a kind of 'speed dating day' is held between the candidates and interested companies.

- Our partners have not had the capacity to cope with all the tasks they have got and they were competing with each other to try and recruit the same candidates. The problem in the industry won't be solved by moving manpower from one company to the next. It is a drain on resources to have to continually attract, recruit and train new people, explains divisional manager Thomas Schnegelsberg from Microsoft Danmark ApS.

The job for the Danish Technological Institute was to develop an IT consultant's education and training programme, where candidates with relatively little business experience could be equipped to function as consultants who technically and commercially could work with solving customer problems.

- Candidates follow an untraditional training programme consisting of classroom teaching, eLearning, workshops, mentor schemes and self-study as well as virtual labs and study groups, says Sanne Juul Nielsen, centre manager for the centre for Conferences and Training. She adds that candidates have to be trained to function as consultants who develop and adapt software for customers who use Microsoft's platform.

- Our previous experience of working with the centre for Conferences and Training at the Danish Technological Institute coupled with their ability to combine both pedagogical and technical methodology meant that we were in no doubt that they would be able to help us create our largest stand-alone training initiative to date, says divisional manager Thomas Schnegelsberg from Microsoft Danmark ApS. He adds that it is a bonus that the Danish Technological Institute, as well as offering technical IT courses, also has expertise in offering other kinds of consultancy courses.

- Today all 25 candidates are employed in the IT industry, says Mette Hougaard Holm from the Danish Technological Institute, who is responsible for the teaching.

KNOWLEDGE TRANSFER

SIMPLY THE BEST OR SLOW BOAT TO CHINA?

In 2007, the Danish Technological Institute made an extensive analysis of the biomedical sector in Europe by carrying out a number of case studies and drawing up four scenarios for the biomedical companies in 2017. The scenarios were made available to companies in the sector to be used for strategy development and have come to form the basis for new prioritised initiatives in the sector.

What will conditions be like in the biomedical sector in Europe in ten years time? How can biomedical companies best prepare themselves for the future and cope with the challenges that the future holds? These are some of the questions which consultants from the centre for Policy and Business Analysis at the Danish Technological Institute have found answers to.

Through collating a mass of statistical data and analysing existing reports, the consultants have defined and described the sector and identified important trends and challenges for the biomedical companies in Europe.

A series of interview-based studies were carried out of companies in the sector as well as two clusters in Germany and Ireland respectively.

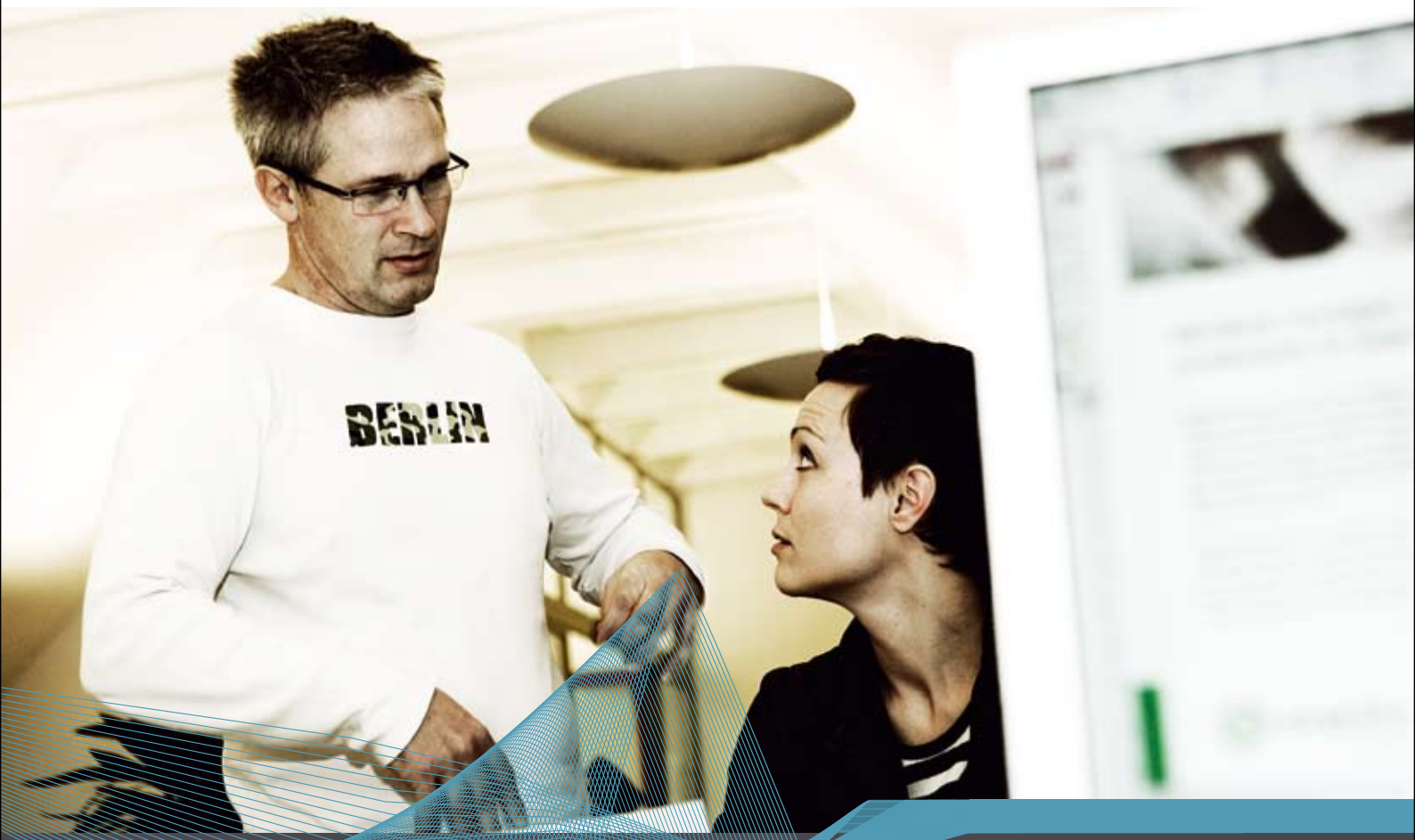
Against this background the consultants drew up four possible scenarios for the sector in 2017:

- 'Simply the best' – a positive scenario showing growth in the sector and a high degree of innovation.
- 'Forever young' – in this scenario the companies' energies are mainly focused on life-style products and products for use in cosmetic treatment.
- 'Should I stay or should I go' – a scenario which focuses on a situation where European companies have good access to capital but where the regulatory framework in Europe is not optimal.
- 'Slow boat to China' – a crisis scenario involving massive transfer of activities to Asia.

The scenarios give different pictures of the future and are prepared on the basis of the regulatory, economic, social or technological factors which could have a potentially major impact on the sector, but where there is uncertainty about how a particular factor will develop.

The total amount of knowledge about trends and challenges – and not least the four scenarios – are to be used as a platform for companies and decision makers to work out strategies which can handle complexity and uncertainty and thus prepare and strengthen the companies to meet the challenges of the future in the best way possible.

The analysis was carried out for the European Foundation for the Improvement of Living and Working Conditions, which is an EU agency based in Dublin.



The Danish Technological Institute's experienced innovation agents are offering company consultancy and are leading 'innovation checks' of small and medium-sized companies. At the same time the agents form the link to new research and development for companies as they can arrange contact to the relevant collaboration partners who can help support the innovation process.

KNOWLEDGE TRANSFER

INNOVATION AGENTS – A HUGE SUCCESS

In the summer of 2007, the Danish Agency for Science, Technology and Innovation launched a new three-year pilot project that is to create innovation in small and medium-sized companies. Together with two other Approved Technological Service Institutes the Danish Technological Institute was selected to implement the project.

'Innovation agents' is the name of the new initiative which takes the form of an offer to companies to have an 'innovation check' carried out, as the Danish Technological Institute, together with FORCE Technology and DELTA-Danish Electronic, Light and Acoustics, put as innovation agents their experienced company consultants at the disposal of the companies. The consultants identify the most important development opportunities for the companies and work closely together with regional growth houses and business advice offices to provide companies with one access point to the public innovation system.

- Constant innovation is a must these days if Danish companies are to stay the distance with global competition. The innovation agents form the link to new research and technology especially for companies that do not traditionally work with knowledge institutions, explains centre manager Henrik G. Larson, who manages the innovation agents in the Central Denmark Region.

The regional innovation agents' are to actively seek out small and medium-sized companies and then arrange contact to relevant knowledge institutions the companies subsequently will carry out the innovation programmes together with. One of the companies that have had advice from an innovation agent from the Danish Technological Institute is advertising bureau BrandWise A/S in Aarhus.

- We put a lot of effort into being ahead of the game in the way that we approach consumers and work a lot on trying to stimulate other senses than just sight, explains Rune Johansen, creative director at BrandWise A/S.

Arla Foods had ordered a very different kind of presentation from BrandWise A/S for the world's largest food trade fair, Anuga in Cologne in October 2007.

The presentation at the trade fair was to appeal to all the senses. At the innovation check the innovation agent, Henrik Skou Pedersen from the Danish Technological Institute, found a number of experts specialising in sense stimulation. He suggested among other companies Aromateket, who were able to help BrandWise A/S with their task, as Aromateket work with sense stimulation through scents.

- By following the innovation agent's advice, we got help to supply Arla's 'advertising pillar' – a huge glass of milk – with the scents of grass, flowers, herbs and vanilla in the form of lids which could be opened. Visitors at the trade fair could open one of the nine lids and look inside a pizza oven and see the flames as well as smell the hot aroma of herbs from the pizza.

- Opening another lid they see a field with cows and smell the scent of fresh grass and summer, explains Rune Johansen. He adds that the advertising bureau has also benefited from getting contacts with competent business partners who can support the bureau's ambitions to develop their range of competences in the future.

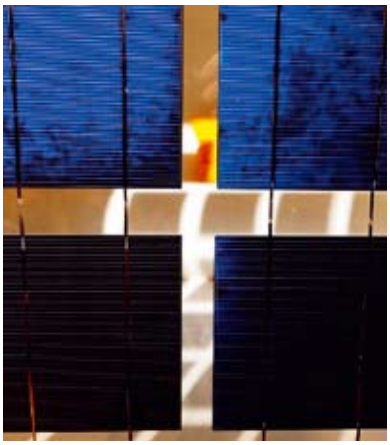
In 2007 the Danish Technological Institute helped 65 companies in the Central Denmark Region to get started with new innovation.

EUR 4.0 million has been earmarked for the innovation agents' project, which is being financed via the Danish Agency for Science, Technology and Innovation's grant to the Approved Technological Service institutes.

KNOWLEDGE TRANSFER

ARCHITECTS SEE POSSIBILITES IN LIGHT IN NEW ENERGY TECHNOLOGY

The Danish Technological Institute is responsible for a major research project which has paved the way for a workshop on solar cells and their aesthetic potential as future architectural building components. Light, energy and creative architecture with transparent solar cells were the ingredients that made up the challenge which a group of architect students at Aarhus School of Architecture got in the autumn of 2007 as part of the project 'Light+Energy+Architecture – Solar Cells in Transparent Facades'.



The task for the students was to build an attractive facade for a building. The facade was to be made of transparent solar cells which filter light and which were created using the latest thin-film technology. The students had three weeks to complete the task.

- Our thinking behind the challenge was to focus on the architectural qualities of transparent solar cells as an obvious opportunity to think creatively and design beautiful building facades with solar cells in different colours and patterns, explains project manager Hanne Lauritzen from the centre for Plastics Technology at the Danish Technological Institute, who was one of the arrangers behind the workshop. She adds that it is interesting that by using their imagination the students have shown how solar cells can add new architectonic qualities to a building's facade.

At the workshop 37 graduate students from the Department of Architectural Design had built room-sized models that were to show how light filters through the transparent solar cells and creates new spatial possibilities and effects. The result of this work culminated in an official exhibition at Aarhus School of Architecture on 23rd November 2007. On the day the different solar cell building facade models were assessed by an invited panel of experts.

- Transparent solar cells possess great architectural potential, says lecturer Ellen Kathrine Hansen from Aarhus School of Architecture, and continues: As well as exploiting the sun's energy to produce electricity they can be integrated into the facade and used to regulate the interior climate and the amount of daylight coming in. The challenge is to put all these elements – energy production, temperature regulation and light intake – together into one architectural whole. The interesting thing is to see how the students managed to realise their visions for the sustainable buildings of the future by exploiting light's potential aesthetically as well as technically.

As well as the Danish Technological Institute and Aarhus School of Architecture, VELFAC A/S and the Danish Building Research Institute are also participants in the research project 'Light+Energy+Architecture – Solar Cells in Transparent Facades'. Both the workshop and the research project are subsidised by Energinet.dk.

KNOWLEDGE TRANSFER

THE DANISH TECHNOLOGICAL INSTITUTE BOOSTS THE DEVELOPMENT OF SMALL AND MEDIUM-SIZED COMPANIES IN RUSSIA

The Institute is now also supporting the development of small and medium-sized companies in the two Russian regions of Kaliningrad and Pskov. The idea is to improve business conditions and competences in the regions and increase the population's working and living conditions.

The project is to run until the end of 2010. Seen from a Danish perspective, a stronger business sector in the two regions will mean better potential business partners and opportunities for outsourcing.

The first task in the project is to develop and establish a structure for Public Private Dialogue between the authorities and the business community. This dialogue will ensure that the business community gains influence with regard to legislation, regulation and the regional business strategy and thus the future development in the area.

The second task is to support the development of existing and the setting up of new business organisations through training and information.

The third task is to support the development of municipal business strategies in selected municipalities which want to increase their tax base by attracting companies and labour to the area.

The final task in the project is to support the development of business consultants by supplying them with new know-how and tools as well as training them in personal development and the traditional consultancy disciplines.

Furthermore, consultants can get support for an information office, first-time sales and implementation of new tools. The project forms part of the larger programme 'Economic Development Support Programme', which is financed by Danida under the European Neighbourhood and Russia Neighbourhood Programme.

KNOWLEDGE TRANSFER

CONCRETE OF THE FUTURE NOW IN BOOK FORM

In August 2007, the Danish Technological Institute published two new handbooks about self-compacting concrete, SCC, which is widely regarded in the business as the concrete of the future. In the books, concrete producers and construction companies can find good advice about using SCC and making concrete constructions out of SCC.

Concrete is the world's most important construction material. In Denmark more than eight million tons of concrete are produced every year. There are several advantages with moving away from using traditional concrete. SCC has been proven to have a positive impact on the working environment and on the productivity of concrete casting. But in spite of the fact that more and more companies are starting to use SCC, there are still problems. The handbooks, which came about as a result of the SCC consortium's work over four years, are the first step on the way to helping solve these problems.

- There has never before been a collected publication about the practical use of SCC. I therefore hope that concrete producers and construction companies will find a lot of helpful and applicable tools in the books to work with SCC, says author and senior consultant Claus Vestergaard Nielsen from the Concrete centre at the Danish Technological Institute, adding that the handbooks indicate among other things which flow properties should be chosen to achieve a good result and what factors construction companies should be aware of compared to traditional concrete.

- SCC is the most promising innovation in the concrete industry for the last 20 years. Unlike traditional concrete it does not need vibration during casting. I am sure that SCC will make it easier for construction companies to retain employees. Once concrete workers have tried working with this concrete material and themselves physically experience its many advantages, they will only reluctantly go back to the old kind of concrete, says centre manager Mette Glavind from the Danish Technological Institute. She was formerly head of the now closed down SCC consortium which, helped by 17 other knowledge centres and companies including MT Højgaard A/S, is behind the two books.

And it is MT Højgaard A/S, the largest construction company in Denmark, which really appreciates the publication of the two handbooks about SCC. MT Højgaard A/S believes that the books have given the concrete industry a technological boost and that they meet the great need there is for help to work with SCC and thereby ensure that the number of construction errors falls.

- I am very enthusiastic about SCC and regard it as the building material of the future. The handbooks will without a doubt help to disseminate knowledge about SCC and how to use it to the benefit of the working environment, productivity on the building site and the quality of building generally. Moreover there is a pressing need for clear instructions for using SCC so that construction partners don't talk at cross-purposes, says Lars Gredsted from MT Højgaard A/S, who was chairman of the SCC consortium's steering committee.

SCC stands for self-compacting concrete and is defined as concrete which flows by itself out into the casting form, enveloping the reinforcements. In contrast to traditional concrete SCC does not have to be vibrated or worked in any other way mechanically when it is poured out into the form. This is an advantage for concrete workers as they are then spared having to use the heavy and noisy vibration equipment. As a result, there is a reduced risk of back and hearing injuries together with a decrease in the risk of getting white, numb fingers. SCC is also faster and more efficient to cast.

KNOWLEDGE TRANSFER

LEDERFORUM TEACHES MANAGERS SEVEN GOOD HABITS

The Institute offered managers the opportunity to choose and put together their own individual conference programme, which was held as a one-day event in the spring of 2007. The concept, which goes under the Danish title LederForum, gathered together a range of professional and personal competences which are required in a modern manager in the year 2007.

Participants tailor-made their own programme by choosing between a large number of management sessions including 'Seven good habits', 'Meditation and management' and 'Coaching as a management tool'.

LederForum provided the participants with inspiration, new knowledge and tools to face and solve the conflicts, expectations and demands that make up the role of being a manager today and in the future. This was achieved through workshops, sessions and debates about how best to manage innovation and change processes and how best to handle conflicts and difficult situations.

There were presentations and talks by several extremely experienced managers, including managing director of Microsoft Danmark ApS Jørgen Bardenfleth, director Peter Aalbæk Jensen from Zentropa ApS and Arne Nielsson from FOQUS Management A/S, who has been world champion 10 times in one-man and two-man canoeing.

KNOWLEDGE TRANSFER

STRONG TEXTILE COMPETENCES FROM SWEDEN

The Danish Technological Institute recruits textile engineers from Sweden as this is the only country in the Nordic region which has this particular education programme. In this way, the Institute can focus on the innovative utilisation of technical textiles in buildings.

'Advanced Textile Engineering' is a new and exciting field of operation for the Danish Technological Institute.

- Textiles have great potential in the building industry. We can see possibilities for developing textiles as concrete reinforcement, textiles to use in casting forms for concrete elements and textiles to reinforce and protect surfaces and facades, says textile engineer Ellen Svensson, who has brought new competences to an exciting research and development environment at the Danish Technological Institute.

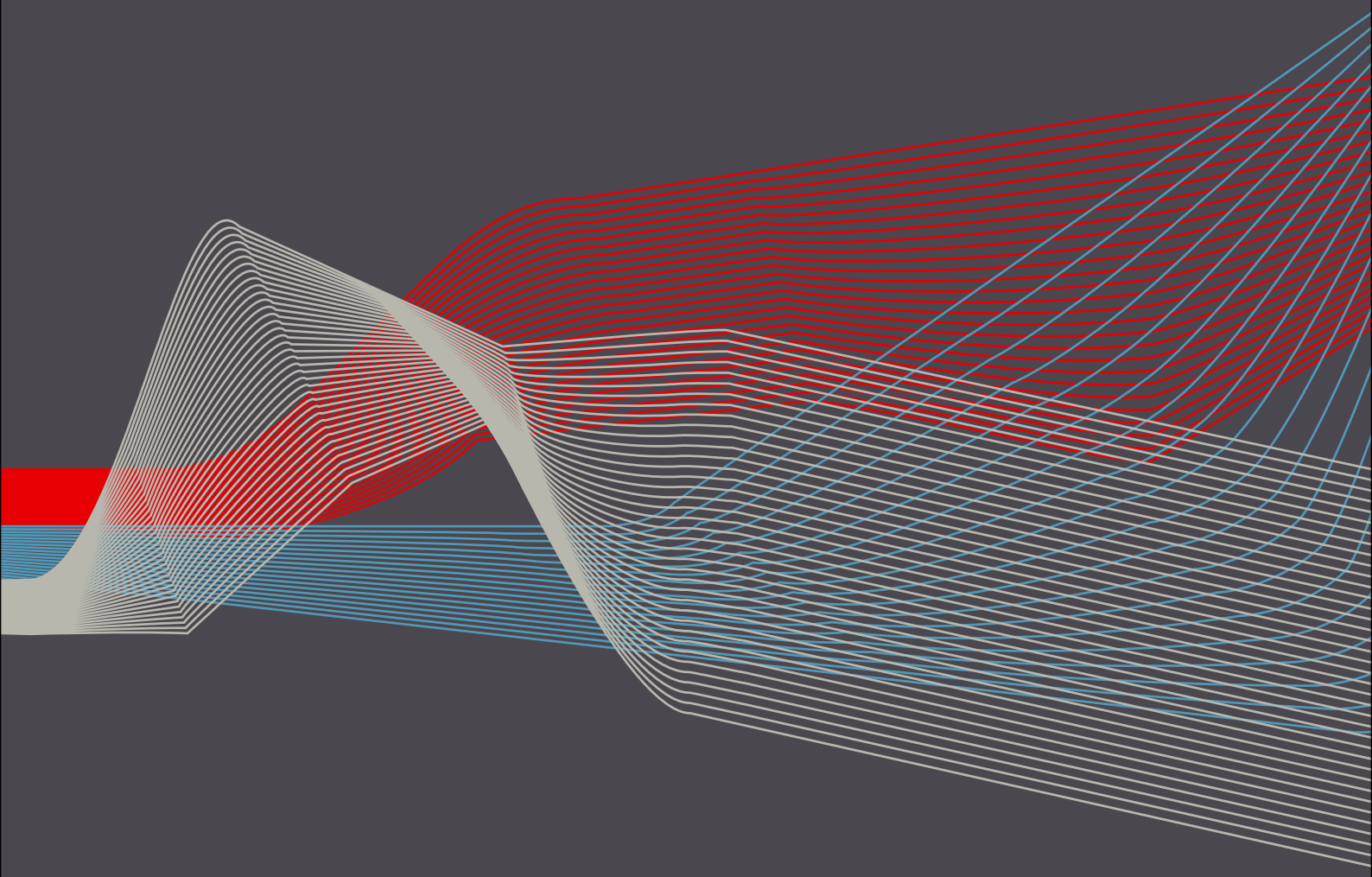
Ellen Svensson works closely together with two other textile engineers, Anna-Carin Jonsson and Susanna Bjunö. All three are Swedish and trained at the Swedish School of Textiles in Borås, which is the only engineering school in the Nordic region that offers education programmes in textile engineering. Ellen Svensson is also a European Master in Advanced Textile Engineering.

The group works with all forms of textiles including technical textiles for buildings and other uses as well as more traditional textiles for clothing and furniture.

For Denmark the technological textile competences are important in spite of the fact that production in the textile industry is as a rule located in countries with lower labour costs. This is because product development and design are still done here in Denmark so the industry needs advice, help with requirement specifications and sampling which can ensure that the products meet customer demands.

Denmark needs the high level of technological competence in textiles brought over from Sweden. Innovative application of textiles has great potential in construction and the textile industry's product development and design still take place here in Denmark.

ANNUAL REPORT



2007

ANNUAL REPORT 2007

2007 was an eventful and challenging year in which the Danish Technological Institute continued to build steadily on its successes, disseminating knowledge about new technology to the benefit of the business community and society in general. Over the year, the Institute strengthened its ability to meet the needs and demands of the future – both domestically and in an international context.

The Danish Technological Institute has embarked on implementing the strategy for the period 2007-2009, and it is also from this hands-on development work that innovative know-how is developed which can benefit companies in the near future.

The strategy is aimed at two overarching goals: Growth and internationalisation.

Both goals support the Danish government's globalisation strategy and its stated objective to promote the competitiveness of Danish businesses. To this end, the Danish Technological Institute will over the course of the strategy period continue to increase their interaction with small and medium-sized companies. And the Institute will to an even greater extent contribute to improving the framework for companies' research, development and innovation in a global context. Our ambition is to play a central role in the challenges involved in:

- Increasing companies' ability to adopt new knowledge.
- Increasing companies' productivity also on the global market.
- Increasing companies' exploitation of information and communication technology for the development of intelligent products and services.
- Encouraging companies to invest in new, efficient and sustainable energy and environmental technology.
- Encouraging companies to use nano- and microtechnology in processes and products.

The Danish Technological Institute also enhanced its already strong image in 2007, achieving an impressive placing in the trade magazine Ingeniøren's annual image analysis Profil 2007, which is a survey carried out among engineers and engineering students. Among qualified engineers, the Danish Technological Institute is regarded as Denmark's most attractive place to work as far as research and development are concerned. The Institute thus retained its first place from last year.

Financial review

We are pleased to announce a profit for 2007 of EUR 3.2 million. The Group's total turnover amounts to EUR 100.7 million, which represents an increase of 3.1% compared to 2006.

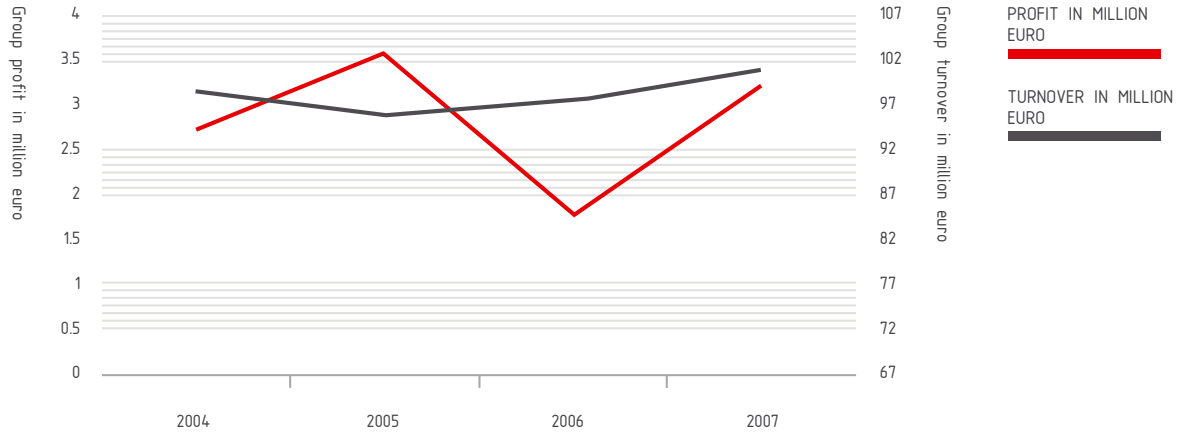
The Institute's profit this year is above the level budgeted for, with total profits being significantly higher than last year's, which were affected by extraordinary costs for the centenary in 2006.

The Danish Technological Institute's turnover is made up of commercial activities and research and development activities which include result contract activities.

The Institute's commercial turnover amounts to EUR 77.9 million. This is EUR 2.1 million more than the previous year and represents an increase of 2.7%. Turnover from the domestic market reflects the current boom in the Danish business sector.

Research and development turnover together with result contracts' turnover amounts to EUR 22.8 million. This accounts for 22.7% of the total turnover and represents an increase of 4.7% compared to 2006.

GROUP TURNOVER AND PROFIT IN THE PERIOD 2004 - 2007



The profit for 2006 was affected by extraordinary centenary costs of EUR 1.5 million.

In 2007 the Institute's self-financed development projects totalled EUR 4.5 million. This is EUR 0.6 million more than in the year before. It is the Institute's assessment that the knowledge development yielded from our research and development activities is of great significance to Danish companies. This new knowledge forms the basis of the Institute also being able to offer the highest quality of technological services in the future.

Equity increased by EUR 3.2 million and amounted to EUR 40.9 million as at 31 December 2007. The balance sheet increased by EUR 0.7 million to 70.7 million. Cash flow from operations amounts to EUR 8.5 million against EUR 1.0 million in 2006. Cash flow for investments amounts to EUR 4.4 million.

The Institute's financial solvency continues to be sound and amounted to EUR 23.1 million at the end of 2007.

The Institute's Swedish subsidiaries have made a positive contribution to the Group's total profit. SIFU AB achieved a profit in 2007 of SEK 4.1 million which represents an improvement compared to last year of more than SEK 9 million. Swedcert AB achieved a profit of SEK 0.9 million, its best result so far and significantly over the budgeted profit.

Danish subsidiary Technological Innovation A/S also turned a satisfactory profit of EUR 0.4 million, primarily as a result of returns from investments in innovative entrepreneurs.

During the accounting year, the number of divisions was reduced from six to five as Training and Infomatics was closed down as an independent division. The division's activities have been moved to other business units. An overview of the Group's organisational structure can be found on the last page of this report. Since the balance sheet date, no events of significance to the annual report have occurred.

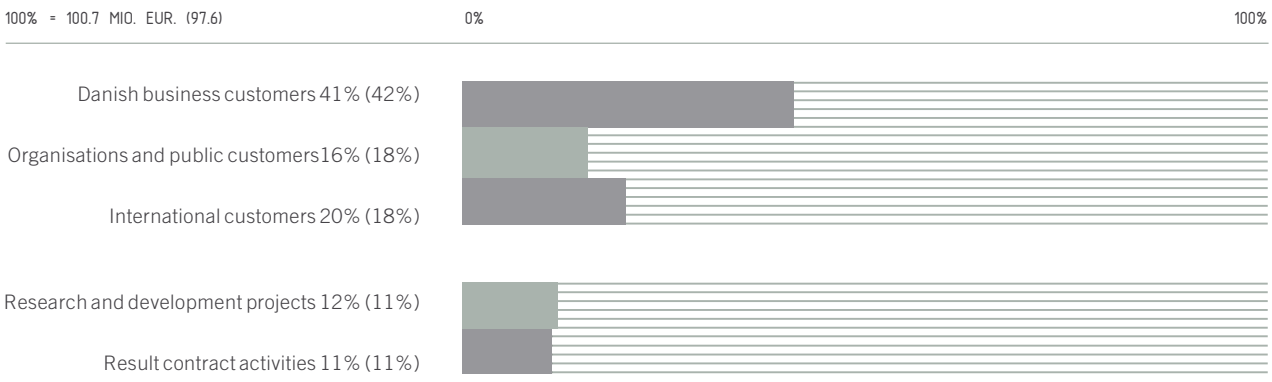
KEY FINANCIAL DATA

		2003	2004	2005	2006	2007
Turnover	mio. eur.	88.7	98.6	95.9	97.6	100.7
Net profit	mio. eur.	1.9	2.7	3.6	1.8	3.2
Equity	mio. eur.	29.7	32.4	35.9	37.7	40.9
Assets	mio. eur.	60.9	69.1	72.0	70.0	70.7
Cash flow from operations	mio. eur.	7.4	7.1	7.8	1.0	8.5
Cash flow for investments	mio. eur.	1.9	5.6	4.1	3.7	4.4
Investments in tangible fixed assets, gross	mio. eur.	2.8	5.0	5.0	3.5	4.1
Profit ratio	%	2,1	2,8	3,7	1,8	3,2
Solvency	%	48,7	46,9	49,9	53,8	57,8
Self-financed development	%	4,8	3,6	4,4	3,9	4,5
Average number of staff	Number	848	864	835	831	795

Profit ratio: Result before extraordinary items as percentage of turnover.
Solvency: Equity at period end as percentage of liabilities at period end.
Self-financed development part: Self-financing as percentage of turnover.

The profit for 2006 was affected by extraordinary costs for the centenary.

TURNOVER DISTRIBUTION



IN 2007 THE DANISH TECHNOLOGICAL INSTITUTE PROVIDED SOLUTIONS FOR 23,400 CUSTOMERS, OF WHOM 17,200 ARE DANISH

Special risks
The Danish Technological Institute's most significant operational risk is linked to controlling ongoing research and development projects and long-term commercial projects. This risk has been taken into consideration in the accounts. The Institute's solvency and financial soundness mean that its sensitivity to changes in interest rates is only slight. There are no significant currency risks, nor any significant risks concerning individual customers or partners.

Expectations for 2008
The Danish Technological Institute expects a moderate increase in turnover, primarily in commercial activities. This is based on the fact that overall growth in the economy will have a knock-on effect on the Institute's activities.

Turnover from research and development is forecast to remain at a similar level to this year's. At the same time the Institute expects the last few years' increased competition for publicly tendered projects to continue.

The Institute aims to be an active participant in the EU's 7th Framework Programme and has set up a project office which co-ordinates project application work to do with the implementation of the programme. In 2007 this resulted in 34 project applications, from which commitments were obtained for four new projects, which is the equivalent of the average hit-rate for EU-wide organisations similar to the Danish Technological Institute.

Customers
Customers who buy the Institute's commercial services are Danish business customers, organisations and public customers, as well as international customers respectively. In 2007 the Institute provided solutions for a total of 23,400 customers, of whom 17,200 are Danish. Among the Danish business customers 62% come from the service sector, while 38% come from the industrial sector. Here as well the Institute works closely together with especially the small and medium-sized companies. 67% of all customers are companies employing fewer than 50 people. The Danish Technological Institute has a presence in four of the five new regions in Denmark, because we feel it is advantageous to be near to our customers. The regional distribution of our customers also roughly reflects the business structure in general.

The Institute had 1,886 public customers in 2007. The public customers and organisations buy services such as consultancy and training in the same way as the private companies do. On top of this the Institute also serves public customers via a number of operational projects.

International activities
The Institute had 962 international customers as well as 3,208 companies which bought training services from SIFU AB, the Institute's largest Swedish subsidiary. Altogether the Institute's international turnover amounts to EUR 22.5 million.

IN 2007 THE DANISH TECHNOLOGICAL INSTITUTE FURTHER STRENGTHENED RESEARCH AND DEVELOPMENT

Project evaluation
The Institute's work with turning new knowledge into day to day business practice forms a central element in the Institute's non-profit making activities. It is therefore of crucial importance to hear what customers think about the solutions the Institute provides. At the end of 2005 a new form of evaluation was introduced. And so in 2007 too customers were asked about how satisfied they were with the solutions provided. Together with every invoice, a questionnaire is sent out by eMail. In 2007 over 22,000 questionnaires were sent out asking customers to assess the Institute over a number of parameters including quality and delivery time. In all there were 5,908 replies. 98% of customers were satisfied or very satisfied with the work. But in the cases where customers have critical comments, the individual customers are contacted directly in order to obtain further feedback and clear up any possible areas of confusion. This means that the Institute's employees get immediate feedback on their work and can quickly take steps to adjust or alter services if this is deemed necessary.

New innovation consortia
In 2007 the Danish Technological Institute strengthened its position in the field of research and development. Over the accounting year the Institute thus took on the role of project leader for four innovation consortia granted by the Ministry of Science, Technology and Innovation. These are 'Clean Catalytic Surfaces', 'Nanobionic Freezing Point Depressing Surfaces', Octopus – The European NanoImprint Factory' and 'Sol-Gel Coating'. In addition the Institute became a partner in five other consortia also provided with grants in 2007.

Result contract activities
A significant proportion of the Institute's future research and development activities fell into place at the beginning of the year with the result contract entered into with the Ministry of Science, Technology and Innovation for the period 2007-2009. These activities are expected to have a major impact on the Danish business sector's future competitiveness across a large number of technologies.

RESULT CONTRACT 2007-2009
25 ACTIVITIES WHICH ARE TO STRENGTHEN BUSINESS COMPETITIVENESS IN SIX AREAS

A. Innovative products of the future	B. Productivity and internationalisation	C. Intelligent use of ICT
D. Sustainable technology	E. Small and medium-sized companies in the global reality	F. Food and health

'Look forward, ever forward! Pick out those future paths that will pave the way for development, and direct your energies there where you believe the Institute's help is needed. Don't wait for new lands to be reached along old, well-trodden paths. For your way shall often go via unknown paths and short-cuts', said Gunnar Gregersen, founder of the Danish Technological Institute.

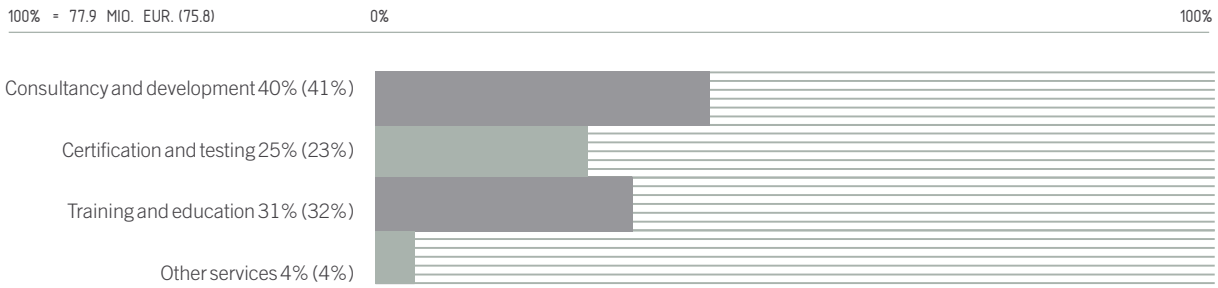
New facilities

The Danish Technological Institute needs to be far-sighted technologically and innovatively on behalf of its customers. As such in 2007 the Institute continued its investments in laboratory facilities which put the Institute at the forefront in a number of technological fields. The investments ensure that the Institute will also be well-equipped in the future to cover companies' need for top-class laboratory facilities.

In 2007, as the first organisation in Denmark to do so, the Institute invested in a 'Rapid Manufacturing Machine' for metal. This enables the Institute to support industry in designing and constructing complicated shapes from metal built in one piece and from a three-dimensional drawing. The machine can help to ensure that companies achieve better functionality and increased productivity.

The Institute has also invested in a new hydrogen laboratory which became operational in June 2007. The activities in the new laboratory are aimed at the producers of components which form part of the hydrogen chain. One of the first activities was to investigate the use of methanol as a hydrogen carrier and use this principle in different applications. The philosophy behind the laboratory is to enable testing of all the components in the hydrogen chain, all the way from production, through storage and distribution to conversion and utilisation across different applications, e.g. small vehicles. Similarly components or electrical vehicles can be tested, including batteries and power electronics.

DISTRIBUTION OF THE INSTITUTE'S COMMERCIAL TURNOVER



In addition the Institute invested in the so-called Det Højteknologiske Betonværksted (the high-tech concrete workshop), which is equipped with the latest robot technology. The concrete laboratory opened in June 2007 and there was, and still is, huge interest in visiting and using the facilities. The laboratory houses among other things a robot which produces casting forms for concrete elements. The laboratory also includes a new concrete mixing plant, which can be used to carry out very 'realistic' trials and testing.

Consultancy and training

Consultancy services for private and public customers accounted for 31% of the Institute's combined turnover. Consultancy is carried out against the background of the knowledge that is developed from research and development activities and through a long collaboration with the business sector. Advice is available across all the Institute's technical fields and consultancy services thus reflect the diversity of the Institute's work.

Turnover from training and education accounts for 24% of the total turnover. The Institute now also offers management training. Altogether 29,862 people have taken part in courses, seminars and conferences arranged by the Institute. In 2007 Microsoft nominated the Danish Technological Institute as 'Learning Partner of the Year 2007'. This is because Microsoft regards the Institute as being an organisation that always provides an excellent and well worked-through product, where technical professionalism enjoys the highest possible priority.

Operational projects

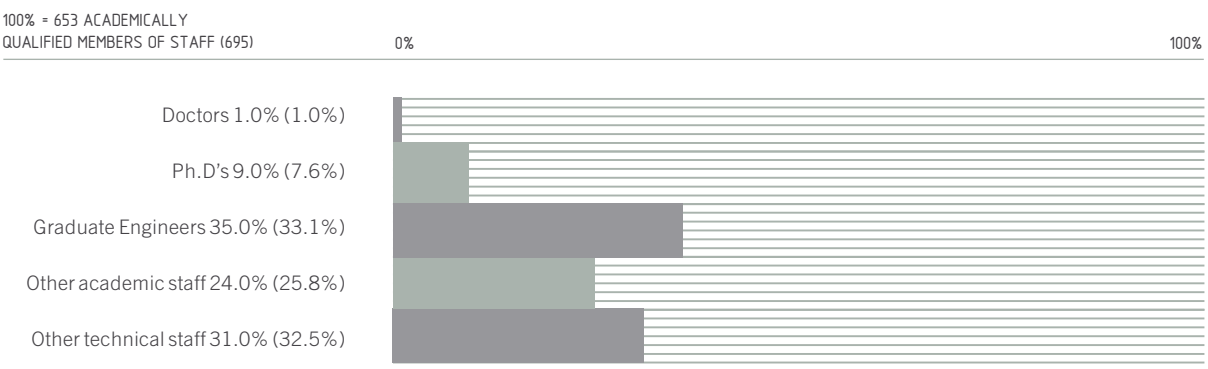
The Institute runs a series of operational projects primarily for public sector customers, for example the FEM-Secretariat which the Institute runs together with the Danish Building Information Centre. This is a secretariat for the energy labelling of buildings, housing survey schemes, inspection schemes for boilers and heating systems, inspection schemes for ventilation systems and the secretariat for state-owned property. These are functions that are in line with many of the Institute's fields of technical competence providing excellent synergies with the other activities. The FEM-Secretariat is run for the Danish Enterprise and Construction Authority and the Danish Energy Authority respectively.

In 2006-2007 the Danish Technological Institute assisted the Danish Ministry of Education in carrying out a comprehensive development programme across the whole country. The goal behind the project called Kompetencecentre I Lærende Regioner (competence centres in learning regions) was to improve the interaction between educational institutions and small and medium-sized companies and to contribute to the life-long learning of especially employees with shorter educational backgrounds. The Institute functioned as external project secretariat for the development programme for the 15 competence centres which consisted of a number of educational institutions chosen to take part in the collaboration, including business schools, AMU centres (labour market training and education centres) and social and health worker schools.

For many years the Danish Technological Institute has run the so-called 'Public Service for opfindere' (public service scheme for inventors) for the Ministry of Science, Technology and Innovation. In 2007 around 6,000 consultancy projects were carried out. This represents an increase of over 25% which among things led to the scheme being funded with an extra EUR 0.1 million in the last quarter of the year.

In 2007, Technological Innovation A/S, which is one of the country's seven innovation environments, invested in five new entrepreneurial companies. One of these is described on page 10 of this report. Technological Innovation A/S attracted EUR 15.3 million for the companies in the accounting year, which Technological Innovation A/S has invested in on its own behalf and on behalf of the Ministry of Science, Technology and Innovation.

ACADEMICALLY QUALIFIED MEMBERS OF STAFF



The fall in the number of academically qualified staff is due to the outsourcing of the EuroCentre as well as the Business Service Centre for Copenhagen County being moved to the Business Link Greater Copenhagen.

THE DANISH TECHNOLOGICAL INSTITUTE WAS ABLE TO ATTRACT EXTREMELY WELL-QUALIFIED GRADUATES IN 2007

Organisation and employees

The Danish Technological Institute's work and development is conditional upon competent and well-qualified staff who are constantly developing their competences. During 2007 the Institute invested EUR 1.2 million in the further education and training of employees, primarily for short courses covering innovative customer contact, presentation techniques and project leadership and management.

In 2007 the Institute made sure that key people at the Institute took part in a special training programme dealing with business development. Altogether 29 employees took part in the programme, which ran over six months and consisted partly of classroom lessons and partly of project work. The goal of the course is to give academically qualified staff, newly appointed managers and employees with management potential an additional competence boost. The programme is part of the overall development of the Danish Technological Institute as a successful and professional knowledge organisation in a competitive and international market.

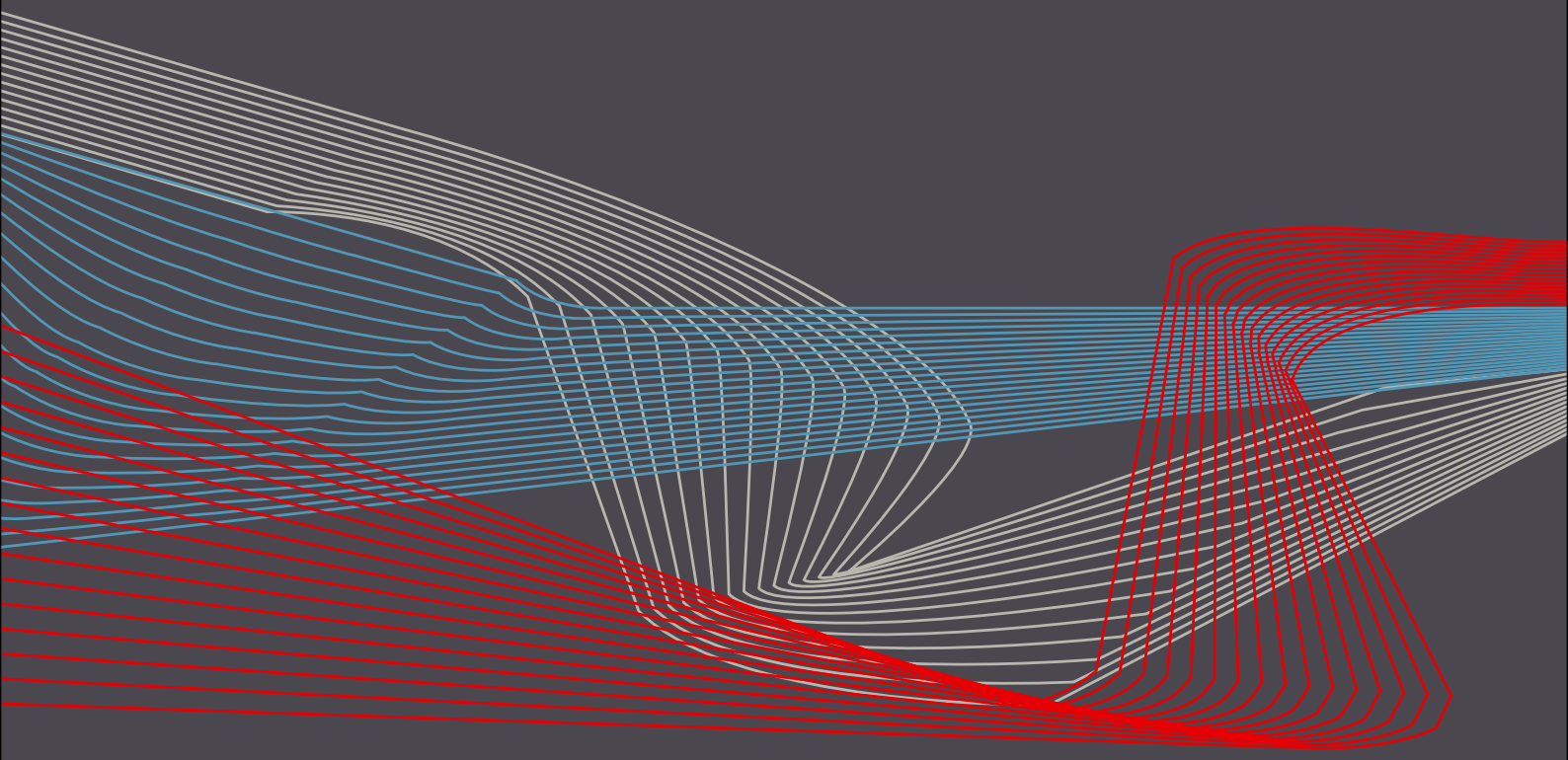
In addition, the Institute's newly appointed and experienced managers took part in an intensive seminar with Paul Evans, who is a professor at INSEAD in France. The seminar focused on the role of the manager as well as re-examining and developing the participants' own management roles. In all 39 managers took part in the seminar.

The Danish Technological Institute was able to attract extremely well-qualified graduates for different functions, including, especially, young talents with leadership potential. This was confirmed by the 'Universum Young Professionals Survey 2007', which is carried out each year and which surveys the views of young academics employed in the business sector on their careers, working life and future. The Danish Technological Institute appeared for the first time and achieved 11th place in the top 20 ranking of the most attractive organisations to work for – assessed by young people with a natural science background.

In 2007 the Institute hired 14 staff with a Ph.D, bringing the figure up to 9% of the total number of academically qualified employees.

A high level of well-being among staff is crucial for the Institute's work, which is why the decision was made to offer all employees a supplementary health insurance effective from March 2008.

The Danish Technological Institute is an independent and non-profit making institution which has been approved as an Approved Technological Service (ATS) Institute by the Ministry of Science, Technology and Innovation.



ACCOUNTS

PROFIT AND LOSS ACCOUNT

Euro million	Note	2007	2006	2005
Commercial activities		77.9	75.8	73.1
R&D activities		11.9	10.5	11.3
Result contract activities		10.9	11.3	11.5
Total turnover		**100.7**	**97.6**	**95.9**
Costs, excl. Salaries		23.4	20.7	18.8
Other external expenses		17.3	18.1	17.6
Staff costs	1	53.2	53.7	52.5
Depreciation and write-downs	2	3.9	3.6	3.6
Total costs		**97.8**	**96.1**	**92.5**
RESULT OF PRIMARY OPERATION		**2.9**	**1.5**	**3.4**
Result of subsidiaries and associated enterprises		0.0	0.0	0.0
Financial items, net	3	0.5	0.2	0.1
RESULT BEFORE TAX		**3.4**	**1.7**	**3.5**
Tax of the year's result	4	(0.2)	0.0	0.1
NET PROFIT before minority interests		**3.2**	**1.7**	**3.6**
Minority interests' share of result in subsidiaries		0.0	0.1	0.0
Net Profit		**3.2**	**1.8**	**3.6**

which is proposed transferred to the equity account.

Group segment information, Euro million

Turnover, divisions	Commercial activities			R&D activities			Result contract activities			Total turnover		
	2007	2006	2005	2007	2006	2005	2007	2006	2005	2007	2006	2005
Building Technology	15.2	13.9	13.5	1.2	1.1	1.4	2.0	2.3	2.3	18.4	17.3	17.2
Industry and Energy	13.0	12.3	11.4	3.5	3.5	3.7	2.5	2.4	2.5	19.0	18.2	17.6
Industrial Development	7.0	9.2	9.0	0.6	0.7	0.9	1.1	1.1	1.0	8.7	11.0	10.9
Materials	6.6	6.4	5.7	4.8	3.3	3.4	2.3	2.9	3.0	13.7	12.6	12.1
Productivity and Logistics	7.2	8.4	9.2	1.8	1.9	1.9	3.0	2.6	2.7	12.0	12.9	13.8
Other business units*	17.8	16.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	17.8	16.0	14.2
Subsidiaries **	11.1	9.6	10.2	0.0	0.0	0.0	0.0	0.0	0.0	11.1	9.6	10.1
Total	**77.9**	**75.8**	**73.1**	**11.9**	**10.5**	**11.3**	**10.9**	**11.3**	**11.5**	**100.7**	**97.6**	**95.9**

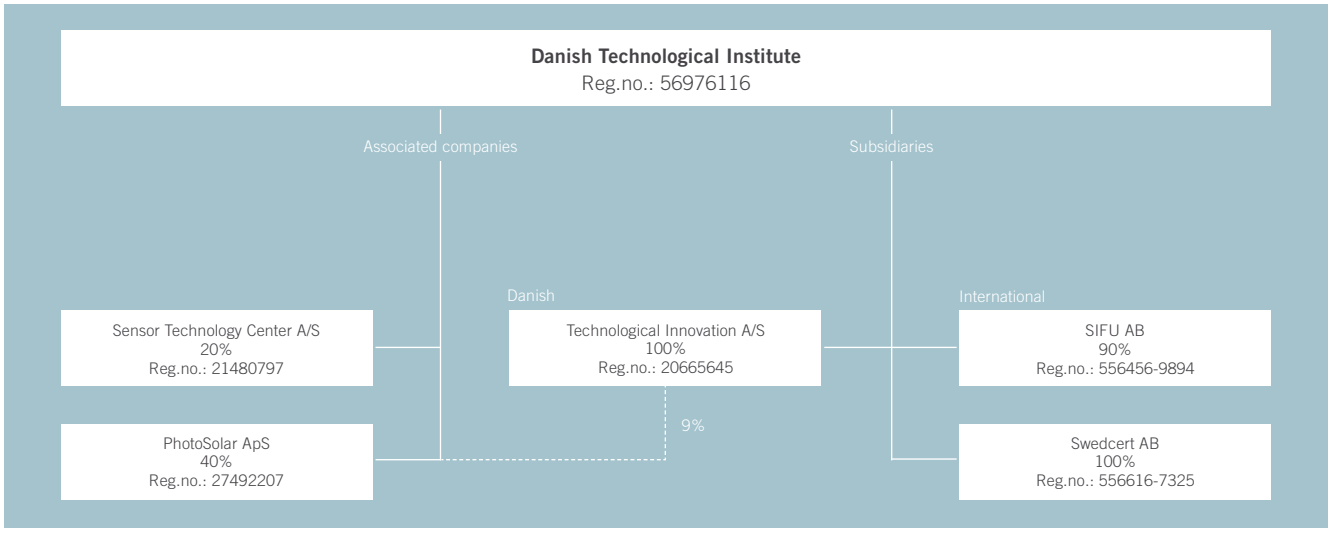
* Other business units = Technological Innovation A/S and International Centre

** Primarily educational activities at SIFU AB and certification activities at Swedcert AB

Turnover, geographically

	2007	2006	2005
Denmark	78.2	78.9	76.6
Abroad	22.5	18.7	19.3
Total	**100.7**	**97.6**	**95.9**

Group overview



BALANCE SHEET

ASSETS, Euro million	Note	2007	2006	2005
Goodwill		0.1	0.7	1.0
Total intangible fixed assets	5	**0.1**	**0.7**	**1.0**
Land and buildings		32.5	32.7	32.7
Operating equipment and inventory		6.0	5.0	4.7
Total tangible fixed assets	6	**38.5**	**37.7**	**37.4**
Equity in associated companies		0.1	0.1	0.1
Other financial fixed assets		1.2	0.8	1.2
Total financial fixed assets	7	**1.3**	**0.9**	**1.3**
TOTAL FIXED ASSETS		**39.9**	**39.3**	**39.7**
Trade debtors		11.3	14.5	9.8
Work in progress	8	1.2	2.0	5.3
Deferred tax assets	4	0.1	0.1	0.1
Other amounts due		0.6	0.5	0.5
Prepayments and accrued income		0.3	0.3	0.6
Total receivables		**13.5**	**17.4**	**16.3**
Cash, in bank and petty cash		**17.3**	**13.3**	**16.0**
TOTAL CURRENT ASSETS		**30.8**	**30.7**	**32.3**
TOTAL ASSETS		**70.7**	**70.0**	**72.0**

LIABILITIES, Euro million	Note	2007	2006	2005
TOTAL EQUITY	9	**40.9**	**37.7**	**35.9**
Minority interests		**0.1**	**0.1**	**0.1**
Mortgage loans		6.3	6.3	6.3
Financial leasing		0.0	0.0	0.0
Total long-term liabilities	10	**6.3**	**6.3**	**6.3**
Trade creditors		2.3	2.1	4.2
Work in progress (liabilities)	8	5.7	9.6	11.6
Other creditors	11	14.5	13.6	13.8
Prepayments and accrued income		0.9	0.6	0.1
Total short-term liabilities		**23.4**	**25.9**	**29.7**
TOTAL DEBT		**29.7**	**32.2**	**36.0**
TOTAL LIABILITIES		**70.7**	**70.0**	**72.0**

Accountants' fees, note 12
Borrowings against security, rental and leasing obligations, note 13
Contingent liabilities etc., note 14
Related parties, note 15

CASH FLOW

Euro million	2007	2006	2005
Result of primary operation	3.0	1.5	3.4
Adjustment for non-cash items	0.3	(0.9)	(1.6)
Depreciation and write-downs	3.9	3.6	3.6
Cash flow from operations before changes in working capital	**7.2**	**4.2**	**5.4**
Increase in work in progress and advance payments	(2.7)	3.3	(0.7)
Reduction of trade creditors and other short-term debt	0.2	(2.3)	(1.2)
Increase in amounts receivable	3.3	(4.4)	4.2
Changes in working capital	**0.8**	**(3.4)**	**2.3**
Cash flow from operations before financial items	**8.0**	**0.8**	**7.7**
Financial deposits and withdrawals, net	0.5	0.2	0.1
Cash flow from operations	**8.5**	**1.0**	**7.8**
Acquisition/sale of activities	0.0	0.0	0.0
Acquisition/sale of equipment and machinery, net	(4.1)	(3.3)	(4.1)
Acquisition/sale of financial fixed assets	(0.3)	(0.4)	0.0
Cash flow from investment	**(4.4)**	**(3.7)**	**(4.1)**
Cash flow from operating and investment activities	**4.1**	**(2.7)**	**3.7**
Long-term debt	0.0	0.0	(0.1)
Cash flow from financial activities	**0.0**	**0.0**	**0.1**
Annual liquidity effect	**4.1**	**(2.7)**	**3.8**
Liquid assets and securities, 1 Jan	13.3	16.0	12.4
LIQUID ASSETS AND SECURITIES, 31 DEC	**17.4**	**13.3**	**16.2**

Figures without parentheses = increased liquidity
Figures in parentheses = (reduced liquidity)
Cash flow cannot be deduced directly from the information in the profit & loss account and balance sheet.

NOTE

Note	Euro million	2007	2006	2005
1. Staff costs				
	Wages and salaries etc	51.8	52.1	51.1
	Pension contributions and other social expenses	1.4	1.6	1.4
	Total staff expenses	**53.2**	**53.7**	**52.5**
	Fees to President and trustees amounted to Euro 0.4 million (2006: Euro 0.4 million)			
	The group has employed an average of 795 members of staff against 831 in 2006			
2. Depreciation and write-downs				
	Depreciation	2.7	3.4	3.4
	Write-downs	1.2	0.2	0.2
	Loss/gain at sale (negative amount = gain)	0.0	0.0	0.0
	Total depreciation and write-downs	**3.9**	**3.6**	**3.6**
3. Financial items				
	Interest income	0.9	0.6	0.5
	Bank interest	0.0	0.0	0.0
	Mortgage interest	(0.2)	(0.3)	(0.3)
	Other interest	(0.2)	(0.1)	(0.1)
	Financial items, net	**0.5**	**0.2**	**0.1**
4. Tax				
	Tax on the year's profit			
	Current tax	(0.2)	0.0	0.0
	Adjustment of deferred tax	0.0	0.2	(0.1)
	Adjustment of valuation reserve	0.0	(0.2)	0.2
	Total tax of the year's result	**(0.2)**	**0.0**	**0.1**
	Deferred tax asset			
	Deferred tax assets, 1 Jan	0.1	0.1	0.0
	The year's adjustment	0.0	0.0	(0.1)
	Adjustment of valuation reserve	0.0	0.0	0.2
	Deferred tax asset, 31 Dec	**0.1**	**0.1**	**0.1**
	Deferred tax assets can be specified thus:			
	Tangible assets	0.0	0.0	0.0
	Tax-related loss	0.3	0.3	0.1
	Valuation reserve	(0.2)	(0.2)	0.0
	Deferred tax asset, 31 Dec	**0.1**	**0.1**	**0.1**
5. Intangible fixed assets				
	Goodwill			
	Purchase price, 1 Jan	1.7	1.9	1.9
	Acquisitions	0.0	0.0	0.0
	Disposals	0.0	(0.2)	0.0
	Purchase price, 31 Dec	**1.7**	**1.7**	**1.9**
	Depreciation,1 Jan	1.0	0.9	0.5
	Depreciation	0.6	0.3	0.4
	Depreciation, 31 Dec	0.0	(0.2)	0.0
	Depreciation, 31 Dec	**1.6**	**1.0**	**0.9**
	Book value, 31 Dec	**0.1**	**0.7**	**1.0**
6. Tangible fixed assets				
	Land and buildings			
	Purchase price 1 Jan	49.7	48.2	47.5
	Acquisitions	0.3	1.5	2.3
	Disposals	0.0	0.0	(1.6)
	Purchase price, 31 Dec	**50.0**	**49.7**	**48.2**
	Depreciation and write-downs, 1 Jan	17.0	15.5	15.1
	Acquisitions	0.0	0.0	0.0
	Depreciation	0.5	1.5	1.5
	Depreciation, 31 Dec	0.0	0.0	(1.1)
	Depreciation and write-downs, 31 Dec	**17.5**	**17.0**	**15.5**
	Book value, 31 Dec	**32.5**	**32.7**	**32.7**
	Public land assessment, 1 Jan	**93.7**	**61.9**	**57.6**
	Operating equipment and inventory			
	Purchase price, 1 Jan	21.5	20.5	20.1
	Exchange rate adjustment	0.0	0.0	0.0
	Acquisitions	3.8	2.0	2.7
	Acquired at acquisition	0.0	0.0	0.0
	Of which project-financed	0.0	(0.1)	(0.5)
	Disposals	0.0	(0.9)	(1.8)
	Purchase price, 31 Dec	**25.3**	**21.5**	**20.5**
	Depreciation and write-downs, 1 Jan	16.5	15.8	15.9
	Exchange rate adjustment	0.0	0.0	0.0
	Acquired at acquisition	0.0	0.0	0.0

Note	Euro million	2007	2006	2005
6.	**Continued previous page**			
	Depreciation	1.6	1.6	1.5
	Depreciation, 31 Dec	1.2	(0.9)	(1.6)
	Depreciation and write-downs, 31 Dec	**19.3**	**16.5**	**15.8**
	Book value, 31 Dec	**6.0**	**5.0**	**4.7**
	of which value of financially leased assets	0.0	0.1	0.2

7. Financial fixed assets

Investments in and value adjustments to securities and equity can be specified thus (Euro thousands):

Name	Location	Share capital	Share and voting rights
Subsidiaries			
Technological Innovation A/S	Høje Taastrup, Denmark	1,006	100
Swedcert AB	Karlskrona, Sweden	13	100
Technological Institute AB	Malmø, Sweden	13	100
SIFU AB	Göteborg, Sweden	644	90
Associated companies			
PhotoSolar ApS	Høje Taastrup, Denmark	40	49
Sensor Technology Center A/S	Brøndby, Denmark	67	20

Associated companies are included based on their latest approved annual reports.
The financial fixed assets include loans to associated companies amounting to DKK 2.2 million (DKK 1.2 million).

	Investment in associated companies	Other financial fixed assets
Balance, 1 Jan	107	1,261
Exchange rate adjustment, 1 Jan	-	-
Acquisitions	-	389
Disposals	-	(174)
Balance, 31 Dec	**107**	**1,476**
Value adjustment, 1 Jan	-	(443)
Exchange rate adjustment, 1 Jan	-	-
Share of profit before tax	13	-
Tax	-	-
Write-downs	-	134
Value adjustment, 31 Dec	**13**	**(308)**
Book value, 31 Dec	**120**	**1,167**

Note	Euro million	2007	2006	2005
8.	**Work in progress**			
	Work in progress	37.4	59.0	62.3
	Invoiced on account and prepayments	(41.9)	(66.6)	(68.6)
	Work in progress, net	**(4.5)**	**(7.6)**	**(6.3)**
	Calculated as follows:			
	Work in progress	1.2	2.0	5.3
	Work in progress (liabilities)	(5.7)	(9.6)	(11.6)
	Work in progress is calculated at sales price	**(4.5)**	**(7.6)**	**(6.3)**
9.	**Equity**			
	Equity, 1 Jan	37.7	35.9	32.4
	Exchange rate adjustment of subsidiary	0.0	0.0	(0.1)
	Profit	3.2	1.8	3.6
	Equity, 31 Dec	**40.9**	**37.7**	**35.9**
10.	**Long-term liabilities – *Due in five years or longer***			
	Mortgage liabilities	6.3	6.3	6.3
	Total long-term liabilities	**6.3**	**6.3**	**6.3**
11.	**Other creditors**			
	Holiday pay obligation	6.8	6.8	7.0
	Other obligations	4.5	4.0	3.7
	Tax due	0.0	0.0	0.1
	VAT due	0.7	0.6	0.4
	Other items due	2.3	2.0	2.4
	Miscellaneous deposits	0.2	0.2	0.2
	Total other creditors	**14.5**	**13.6**	**13.8**
12.	**Accountants' fee**			
	Total accountants' fees	0.1	0.1	0.1
	Of which services other than accounting	0.1	0.1	0.0
13.	**Borrowings against security**			
	Security for bank loans (owner mortgage bonds and indemnification letter in the Institute's property), nom.	0.0	0.0	0.0
	Underwriting obligations			
	Security for invoiced on account payments (primarily EU projects)	3.6	5.8	4.4
	Rental and leasing obligations			
	Operational leasing contracts			
	Liabilities, next five years	2.6	3.1	2.8
	Liabilities, coming year	1.2	1.0	1.1
	Financial leasing contracts			
	Liabilities, next five years (incl. Interest)	0.0	0.0	0.1
	Liabilities, coming year	0.0	0.0	0.0

14. Contingent liabilities etc.

The Institute is party to a few disputes, the outcome of which is not expected to influence the financial results.
The Institute participates in grant-funded projects that under certain circumstances may lead to an obligation to repay the grants received.

15. Related parties

The Institute's related parties include board and management, as well as subsidiaries and associated companies.
The Institute has no transactions with related parties, aside from usual trade among subsidiaries and associated companies.

ACCOUNTING POLICIES

GENERAL

The annual report for the Danish Technological Institute 2007 is presented in accordance with the provisions of the Danish Financial Statements Act for large "C" class companies as well as Danish accounting guidelines with the adjustments required by the fact that the Danish Technological Institute is a self-owned institution and an Approved Technological Service Institute.

Accounting policies are unchanged as compared to last year.

ACCOUNTING AND MEASURING

Assets are valued in the balance sheet when it is likely that future economic advantage will be granted to the Institute and the value of the asset can be valued reliably.

Liabilities are valued in the balance sheet when they are likely and can be valued reliably.

At the first assessment, assets and liabilities are valued at cost price. Subsequently, assets and liabilities are valued as described for each item of the accounts below.

Measuring and accounting takes into account gains, losses and risks that appear before the annual report is made, and that confirm or disprove conditions existing on the balance sheet date.

Earnings are entered in the profit and loss account as they are earned, including accounting for value regulations of financial assets and liabilities that are measured at current value or amortised cost price.

Furthermore, the accounts include defrayed costs, including depreciation, write-downs and provisions as well as reversals as a result of changed accounting assessments of amounts that have previously been entered in the profit and loss account.

CONVERSION OF FOREIGN CURRENCY

Transactions in foreign currency are converted when first entered into the accounts using the exchange rate prevailing on the transaction date.

Exchange rate differences that arise between the exchange rate of the transaction date and the rate on the date of payment are entered in the profit and loss account as a financial item.

Amounts due, liabilities and other monetary items in foreign currency are converted at the exchange rate prevailing on the balance sheet date. The difference between the exchange rate on the balance sheet date and the rate at the time when the liabilities or the amount due arose or was entered in the previous annual report is entered in the profit and loss account under financial items.

CONSOLDIATED ACCOUNTS

The profit and loss account includes the parent company, the Danish Technological Institute, and subsidiaries in which the Danish Technological Institute directly or indirectly holds more than 50% of the voting rights or in other ways has majority influence. Companies in which the Institute owns between 20% and 50% of the voting rights and exercises significant influence are considered as associated companies.

Consolidation includes the elimination of internal group profits and costs, share holdings, internal accounts and returns as well as realised and non-realised profits and losses from transactions between the consolidated companies.

Equity in subsidiaries is recognised as the relative proportion of the subsidiary's market value of net assets and liabilities at the time of acquisition.

Newly acquired or established companies are accounted for in the consolidated accounts from the date of acquisition. Divested or liquidated companies are accounted for in the consolidated profit and loss account until realisation. Comparative figures are not adjusted for newly acquired, divested or liquidated companies.

With the purchase of new companies, the acquisition method is used, according to which the newly acquired company's assets and liabilities are assessed at current value at the time of acquisition. Provision is made to cover the cost of any restructuring of the newly acquired company already decided and announced as part of the acquisition. The tax effect of any reassessments is taken into account.

Positive differences (goodwill) between acquisition value and current value of acquired identified assets and liabilities, including provisions for restructuring, are accounted for under intangible fixed assets and are depreciated systematically in the profit and loss account according to an individual assessment of the financial lifetime of the asset, up to a maximum of 20 years. Negative differences (negative goodwill) that relate to anticipated unfavourable conditions in the companies in question are accounted for in the balance sheet under prepayments and accrued income and are entered in the profit and loss account as the unfavourable conditions are realised. Negative goodwill not related to expected unfavourable conditions is entered in the balance sheet as an amount corresponding to the market value of non-financial assets that are subsequently entered in the profit and loss account during the average lifetime of the non-financial assets.

Goodwill and negative goodwill from acquired companies can be deferred until the end of the year after the acquisition.

Profit or loss at the time of realisation or liquidation of subsidiaries or associated companies are accounted for as the difference between the sales value or the liquidated value and the book value of net assets at the time of sale as well as anticipated costs incurred as a result of the sale or liquidation.

Profit and loss accounts from foreign subsidiaries are converted using an average exchange rate and balance sheet items are converted at the exchange rate prevailing on the balance sheet date.

Differences in exchange rates arising from the conversion of subsidiaries' equity at the beginning of the year compared to the exchange rate prevailing on the balance sheet date, as well as differences arising from converting the profit and loss account from average exchange rates to the exchange rate prevailing on the balance sheet date, are entered directly into the equity.

MINORITY INTERESTS

Entries of subsidiaries are accounted for 100% in the group accounts. Minority interests' proportional share of the subsidiaries' profit and equity are adjusted on an annual basis and calculated as separate items in the profit and loss account and under liabilities in the balance sheet.

PROFIT AND LOSS ACCOUNT

TURNOVER

Revenue is recognised using the invoice criteria, according to which profit is entered in the profit and loss account at the time of invoicing.

Larger and extended contracts are accounted for using the production criteria, meaning that earnings from services rendered are entered in the profit and loss account as the work is carried out.

PROJECT COSTS

Project costs include the year's costs excluding salaries which can be related directly to the individual project.

RESEARCH AND DEVELOPMENT

Research and development costs as well as development costs agreed upon to fulfil project agreements carried out free of charge are entered in the profit and loss account. Development projects that are not customer specific or where knowledge is published are recognised in the balance sheet until such time as it is possible among other factors to point out an obvious connection between expenses and future profit.

PROFIT FROM EQUITY HELD IN ASSOCIATED COMPANIES

The profit and loss account comprises the relative proportion of the individual associated company's pre-tax profit after full elimination of internal profit and loss. The proportion of tax to be paid in the associated company and extraordinary items are accounted for under tax on ordinary profit and extraordinary profit after tax respectively.

FINANCIAL ITEMS

Financial items comprise interest, exchange rate surpluses and deficits related to debts and transactions in foreign currencies.

EXTRAORDINARY ITEMS

Extraordinary items comprise revenue and expenditure originating from events or transactions clearly deviating from the ordinary operating activities, lying outside the company's control, and not expected to be of a recurrent nature.

TAX

The Danish Technological Institute is as an Approved Technological Service Institute exempted from paying tax. Tax for the year, consisting of the year's current tax and deferred tax in subsidiaries, is accounted for in the profit and loss account proportional to the year's profit and entered directly into net equity proportional to items directly accounted for in net equity.

Accounting policies – continued

BALANCE SHEET

INTANGIBLE FIXED ASSETS
Goodwill is depreciated over the expected financial lifetime based on management's own experience in each individual business area.

Goodwill is depreciated using the straight line method over the depreciation period of five years. The book value of goodwill is assessed continuously and is written down at reacquisition value in the profit and loss account if the net value exceeds the expected future net revenue from the company or activity the goodwill is attached to.

TANGIBLE FIXED ASSETS
Land and buildings, technical plants and machinery as well as other plants, operating equipment and inventory are measured at cost price with accumulated depreciation deducted.

The cost price comprises the purchase price plus expenses directly connected to the purchase until such time as the asset is ready to use.

Assets are depreciated over the expected useful life of the asset using the straight line method, based on the following assessments of assets' expected useful life:

Buildings	50 years
Machinery and equipment	5 years
Computer equipment	3 years

Tangible fixed assets are written down at reacquisition value if this is lower than the book value. Annual write-down tests are carried out on every single asset and group of assets.

A profit or loss at disposal of tangible fixed assets is assessed as the difference between sales price minus sales costs and the book value at the time of sale.

Profits and losses are recognised in the profit and loss account under depreciation and write-downs.

LEASING CONTRACTS
Leasing contracts concerning fixed assets where the Institute carries all significant risks and advantages in connection with ownership (financial leasing) are measured at the initial entry into the balance sheet as the value at value date or the current value of future leasing services, whichever is the lower. When calculating the current value, either the agreement's internal rate of return or an equivalent value is used as a discounting factor. Financially leased assets are subsequently treated in the same way as the company's other fixed assets.

The capitalised outstanding balance on a lease is entered in the balance sheet as a liability and the return on the lease is entered in the profit and loss account over the duration of the contract.

All other leasing contracts are considered as operational leases. Operational leasing services and other leasing agreements are entered in the profit and loss account over the duration of the contract. The Institute's total operational and financial leasing agreement liabilities are stated under contingent liabilities, etc.

FINANCIAL FIXED ASSET INVESTMENTS IN ASSOCIATED COMPANIES
Investments in associated companies are valued in accordance with the equity method, and valued in the balance sheet according to the proportion of the company's equity assessed in accordance with the Institute's own accounting policies including deductions or additions of unrealised group internal revenues and losses.

Associated companies with a negative net asset value are measured at DKK 0, and any outstanding amounts in these companies are written down as the parent company's share of the negative net asset value, so far as they are deemed unobtainable. If the negative internal book value exceeds the amount due, the outstanding balance is entered under provisions, so far as the parent company has a legal or an actual obligation to cover the shortfall.

Net revaluation of investments in associated companies is transferred to equity, so far as the book value exceeds the acquisition value.

TRADE DEBTORS
Trade debtors are accounted at amortised cost price, and anticipated bad debts are written off.

WORK IN PROGRESS
Work in progress against customer contracts concerning large and long-term projects is valued at the sales value of the work carried out, which is based on the extent to which the work has been completed on the balance sheet date and the total expected revenue on the individual work in progress.

When the sales value of a contract cannot be assessed reliably, it is assessed as costs are incurred or as the net realisation value, whichever is the lower.

The individual work in progress is accounted for in the balance sheet under debtors or creditors, depending on the net sales value after deductions of invoices on account and prepayments.

PROVISIONS
Provisions comprise anticipated costs for the completion of development projects. Provisions are entered when, as a result of a previous event, the Institute has a legal or actual obligation, and it is probable that the relieving of the debt will lead to consumption of the Institute's financial resources.

DEBTS
Debt to mortgage institutes and banks is accounted for when the loan is raised, and is recognised as the received amount less defrayed transaction costs. Financial liabilities are accounted for in subsequent periods at amortised cost price corresponding to the capitalised value at application of the effective rate of interest, such that the difference between the loan amount and the nominal value is accounted for in the profit and loss account over the period of the loan.
Other debts, including trade creditors, are valued at amortised cost price.

TAX
Current tax obligations and amounts due in current tax in subsidiaries are entered in the balance sheet as tax on the year's taxable income, adjusted for tax on prior years' taxable income and for taxes paid on account.

Deferred tax is measured according to the balance sheet oriented debt method which takes into account all temporary discrepancies between the book value and the tax-related value of shares and liabilities.

Deferred tax assets, including the tax value of deferrable tax deficits, are entered at the value at which they are expected to be used.

CASH FLOW STATEMENT
The cash flow statement shows the Institute's cash flow split up between operating, investment and financial activities for the year, the year's changes in liquid assets and the Institute's liquid assets at the beginning and end of the year.

CASH FLOW FROM OPERATIONS
Cash flows from operations are presented as the profit for the year adjusted for non-cash operating items, changes to working capital, interest received and paid, and corporation tax paid.

CASH FLOW FROM INVESTMENTS
Cash flows from investments include payments due to the acquisition and sale of companies and activities as well as the purchase and sale of non-tangible fixed assets, tangible fixed assets and financial fixed assets.

CASH FLOW FROM FINANCIAL ACTIVITIES
Cash flows from financial activities include changes in size or composition of the Institute's share capital and costs connected to this, as well as the raising of loans, repayment of loans and the payment of dividends to shareholders of the company.

LIQUID ASSETS
Liquid assets include liquid reserves and short-term securities that can without hindrance be converted to liquid reserves, and on which there is only a negligible risk of a change in value.

SEGMENT INFORMATION

Turnover information is presented on the Group's core business. Information on different segments adheres to the Group's accounting practices, risks and internal financial management. The core business includes the Group's various activities (divisions and subsidiaries).

MANAGEMENT STATEMENT

As of this day, the company's Board of Trustees and Board of Executives have submitted the annual report for 2007 for the Danish Technological Institute.

The annual report has been submitted in accordance with the Danish Financial Statements Act and Danish Accounting Standards with the adjustments resulting from the Danish Technological Institute being an independent institution and an Approved Technological Service Institute. We consider the chosen accounting policies to be appropriate, such that the annual report gives a true and fair view of the Group's and the Institute's assets, liabilities and financial position as at 31 December 2007, as well as of the results of the Group's and the Institute's operations and cash flows for the financial year 1 January-31 December 2007 in accordance with the Danish Financial Statements Act and Danish Accounting Standards with the adjustments resulting from the Danish Technological Institute being an independent institution and an Approved Technological Service Institute.

Høje-Taastrup, 7 February 2008

President

Søren Stjernqvist

Board of Trustees

Hans Kirk, Chairman

Poul Ulsøe, Vice-Chairman

Jørgen Elikofer

Jens Nørgaard Oddershede

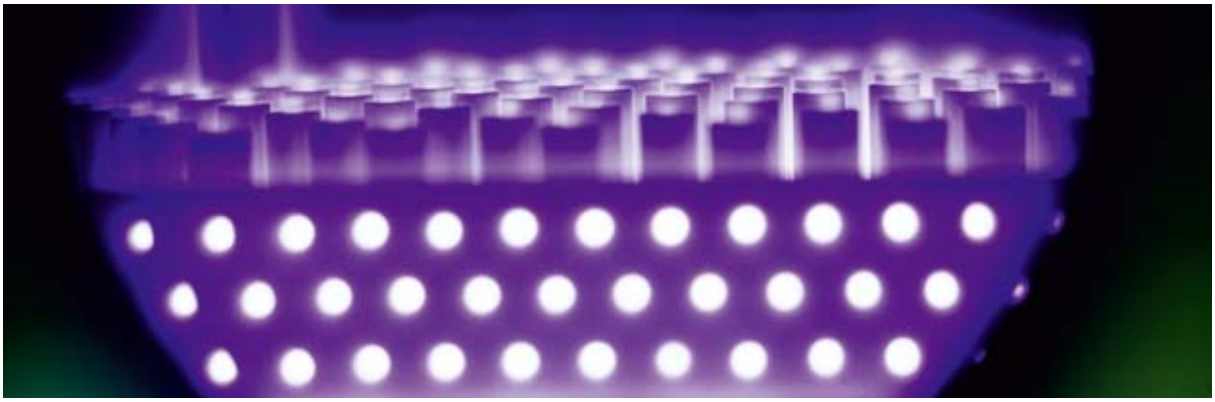
Gunde Odgaard

Ib Rasmussen

Jan Helbo

Jørgen Høegh

INDEPENDENT AUDITORS' REPORT



We have audited the annual report of the Danish Technological Institute for the financial year 1 January-31 December 2007 which comprises the statement by the Executive and Supervisory Boards on the annual report, the management review, accounting policies, profit and loss account, balance sheet, cash flow statement and notes. The annual report has been prepared in accordance with the Danish Financial Statements Act and Danish Accounting Standards with the adjustments resulting from the Danish Technological Institute being an independent institution and an Approved Technological Service Institute.

The Executive and Supervisory Boards and the Senior Executives' responsibility for the annual report
The Executive and Supervisory Boards and the Senior Executives are responsible for the preparation and fair presentation of this annual report in accordance with the Danish Financial Statements Act and Danish Accounting Standards with the adjustments resulting from the Danish Technological Institute being an independent institution and an Approved Technological Service Institute. This responsibility includes designing, implementing and maintaining internal control relevant to the preparation and fair presentation of an annual report that is free from material misstatement, whether due to fraud or error, as well as selecting and applying appropriate accounting policies and making accounting estimates that are reasonable according to the circumstances.

Auditors' responsibility
Our responsibility is to express an opinion on this annual report based on our audit.

We have conducted our audit in accordance with Danish Auditing Standards including instructions from the Ministry of Science Technology and Innovation, as well as Danish Accounting Standards. These standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance that the annual report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence for the amounts and disclosures in the annual report. The procedures selected depend on the auditors' judgement, including the assessment of the risks of material misstatement in the annual report, whether due to fraud or error. In making these risk assessments, the auditors consider internal control relevant to the Company's preparation and fair presentation of the annual report in order to design audit procedures that are appropriate to the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.

An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Executive and Supervisory Boards, as well as evaluating the overall presentation of the annual report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our audit has not resulted in any qualification.

Opinion
In our opinion, the annual report gives a true and fair view of the Group's and the Institute's assets, liabilities and financial position as at 31 December 2007 and of the results of the Group's and the Institute's operations and cash flows for the financial year 1 January -31 December 2007 in accordance with the Danish Financial Statements Act and Danish Accounting Standards, with the adjustments resulting from the Danish Technological Institute being an independent institution and an Approved Technological Service Institute.

Copenhagen, 7 February 2008
KPMG C. Jespersen
Statsautoriseret revisionsinteressentskab

Finn L. Meyer
State Authorised Public Accountant

Lars Bo Jørgensen
State Authorised Public Accountant

THE DANISH TECHNOLOGICAL INSTITUTE'S BOARD OF TRUSTEES

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(Chairman)
Danfoss A/S
Appointed by the Confederation of Danish Industries

Manufacturer Poul Ulsøe
(Vice-Chairman)
B. Rustfrit Stål, Horsens A/S
Appointed by the Danish Federation of Small and Medium-Sized Enterprises

Divisional Director Per Bøch Andersen
Condane A/S
Appointed by the Danish Chamber of Commerce

Director Svend Askær
Danish Association of Managers and Executives
Appointed by the Danish Association of Managers and Executives

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Appointed by the Confederation of Danish Employers

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Danish Metal Worker's Union
Appointed by the Board of Trustees

Academic Engineer Jørn Guldberg
Appointed by the Danish Society of Engineers

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Hans Hellstrøm Henningsen
DBI Plastics A/S
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The Danish Confederation of Trade Unions
Appointed by the Economic Council of the Labour Movement and the Danish Confederation of Trade Unions

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Danish Metal Worker's Union
Appointed by the Economic Council of the Labour Movement and the Danish Confederation of Trade Unions

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Femern Bælt
Appointed by the Ministry of Science, Technology and Innovation

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Q-Transport Material A/S
Appointed by the Danish Federation of Small and Medium-Sized Enterprises

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The Capital Region of Denmark
Appointed by the Danish Regions

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Danish Federation of Small and Medium-Sized Enterprises
Appointed by the Danish Federation of Small and Medium-Sized Enterprises

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Danish Construction Association
Appointed by the Confederation of Danish Employers

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Federation of Building, Construction and Wood Workers' Unions
Appointed by the Economic Council of the Labour Movement and the Danish Confederation of Trade Unions

Technology Consultant Irene Odgård
United Federation of Danish Workers
Appointed by the Economic Council of the Labour Movement and the Danish Confederation of Trade Unions

Member of the City Council
Hans Olsen
Municipality of Lejre
Appointed by Local Government Denmark

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Tekniq
Appointed by Confederation of Danish Employers

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Ib Andresen Industri A/S
Appointed by the Confederation of Danish Industries

Managing Director Lauritz Rasmussen
Taasinge Træ A/S
Appointed by the Confederation of Danish Employers

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Danish Confederation of Trade Unions
Appointed by the Economic Council of the Labour Movement and the Danish Confederation of Trade Unions

Master Blacksmith Henrik Rønnebro
G. Christensen Nykøbing F A/S
Appointed by the Danish Federation of Small and Medium-Sized Enterprises

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Danish Agricultural Council
Appointed by the Danish Agricultural Council

Chairman Poul Vinholt
HK-Industri
Appointed by the Economic Council of the Labour Movement and the Danish Confederation of Trade Unions

Chairman Jørgen Vorsholt
Confederation of Danish Employers
Appointed by the Confederation of Danish Employers

Employee Representatives:

Consultant Carsten Christiansen
Conferences and Training

Electrician Peter Lindeblad
Building Services

Consultant Benny Neister
Plastics Technology

Civil Engineer Bo Højris
Chemicals and Water Technology

SUPERVISORY BOARD

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Danfoss A/S

Manufacturer
Poul Ulsøe (Vice-Chairman)
B. Rustfrit Stål, Horsens A/S

Head of Secretariat
Jørgen Elikofer
Danish Metal Workers' Union

Vice-Chancellor, Professor
Jens Nørgaard Oddershede
University of Southern Denmark

Head of Secretariat Gunde Odgaard
Federation of Building, Construction and Wood Workers' Union

Director
Ib Rasmussen
Ib Andresen Industri A/S

Senior Consultant
Jan Helbo
Employee Representative

Senior Consultant
Jørgen Høegh
Employee Representative

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Director
Bjørn Lykke Jensen

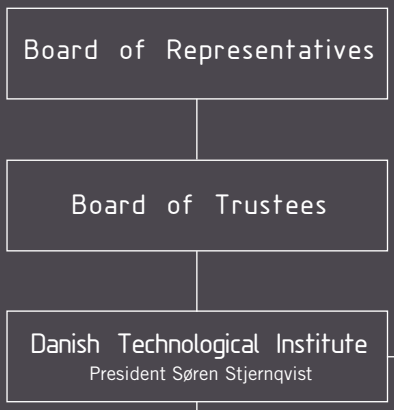
Director
Leif Kirk Thøgersen

Director
David Tveit

Group CFO
Jørgen Kunter Pedersen

Manager of Secretariat of Executive Board
Service Manager, Lawyer
Andras Splidt

ORGANISATIONAL STRUCTURE



Building Technology

Director
Bjørn Lykke Jensen

Concrete
Centre Manager
Mette Glavind

Certification and Building Processes
Centre Manager
Henriette Hall-Andersen

Masonry and Building Components
Centre Manager
Peter Bachmann Vestergaard

New Industrialisation
Centre Manager
Anders Thomsen

Pipe Centre
Centre Manager
Ulrik Hindsberger

Swimming Pool Technology
Centre Manager
Ole Bisted

Timber and Textiles
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Jørgen Baadsgaard-Jensen

Industry and Energy

Director
Leif Kirk Thøgersen

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Ole Ravn

Installation and Calibration
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Chemistry and Water Technology
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Bo Frølund

Materials Testing
Centre Manager
Mikkel Agerbæk

Microtechnology and Surface Analysis
Centre Manager
Leif Højslet Christensen

Plastics Technology
Centre Manager
Anne-Lise Høg Lejre

Tribology
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Lars Pleth Nielsen

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Teknologisk Institut AB Sverige
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Swedcert AB
Managing Director Bertil Wolgast

FIRMA 2000 Sp. z.o.o.
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Productivity and Logistics

Director
Lars Germann

Packaging and Transport
Centre Manager
Jens-Chr. Sørensen

Food Technology
Centre Manager
Anne Maria Hansen

IT Development
Centre Manager
Jens Enevold Kristensen

ProcessInnovation
Centre Manager
John Kold

Production
Centre Manager
Merete Nørby

Productivity
Centre Manager
Poul Jørgensen

Robot Technology
Centre Manager
Claus Risager

Conferences and Training
Centre Manager
Sanne Juul Nielsen

International Centre
Centre Manager
Lars Drejer

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Manager, Lawyer
Andras Splidt

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Manager, CFO
Jørgen Kunter Pedersen

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Personnel Manager
Annemarie Søgaard

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IT Manager
Peter Hjortshøj

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Andras Splidt

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