



Annual Report 2006



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The SINTEF year in brief

SINTEF Building and Infrastructure becomes new division by merging with the Norwegian Building Research Institute.

A laboratory that SINTEF is developing in Murmansk will analyse Russian oil cargoes, a matter of importance for Norwegian oil-spill contingency planning.

A SINTEF report reveals that there is a lack of treatment facilities for Attention Deficit Hyperactivity Disorder (ADHD) patients in Norway.

The EU will build a large-scale plant for fossil fuel-based electricity and hydrogen generation with CO₂ treatment. SINTEF is coordinating the first phase of the project.

SINTEF is a member of a prestigious building project in Hong Kong.

SINTEF and NTNU adopt a joint strategy with the aim to reach international excellence together.

Only Statoil and Norsk Hydro are more popular than SINTEF as potential workplaces for Norwegian technology students.

IFIM (Institute for Industrial Environmental Research), one of four SINTEF units that was doing research on industrial organisation and working life, is closed.

Odd Eriksen, Minister of Industry, opens the RFID Innovation Centre at SINTEF in Oslo.

Eurofighter awards us a project adapting SINTEF's intelligent noise reduction and communication technology for use in fighter cockpits.

An innovation centre which we have helped to establish in Bosnia-Herzegovina provides 50 new jobs in the course of one year for highly trained young people.

SINTEF and NTNU set up joint Gemini Centre for research on solar cell materials.

The Board adopts new ethical guidelines for SINTEF, sets up an ethics council and appoints an ethics ombudsman.

SINTEF chosen as a member of 8 of 14 Centres for Research-based Innovation (CRIs), and will host three of them.

SINTEF and NTNU are joint hosts of the world's largest conference on CO₂ management.

An agreement with Verdane Capital (formerly Four Seasons Venture) strengthens SINTEF's innovation efforts.

SINTEF appeals a tax judgement handed down by Trondheim District Court.

This is SINTEF

The SINTEF Group is the largest research organisation in Scandinavia. Our vision is "Technology for a better society", and our aim is to contribute to increased value creation, improved quality of life and sustainable development. SINTEF sells research-based knowledge and associated services based on deep insight into technology, the natural sciences, medicine and the social sciences.

Our basic values are honesty, generosity, courage and solidarity. SINTEF's aim is to become the most respected research institution in Europe.

The SINTEF Group comprises the SINTEF Foundation, plus four limited companies and SINTEF Holding. We are a competitive research group with a significant potential to make a positive contribution to the development of society at regional, national and international level.

We contribute to the development of existing knowledge-based employment and to the creation of new workplaces. Our business concept is that of promoting the closer interaction of business and research cultures.

Key figures

At the turn of the year the SINTEF Group had 1901 employees, who generated new knowledge worth NOK 2 billion in 2006.

Contracts for industry and the private sector and project funding provided by the Research Council of Norway account for more than 90% of our income. Around seven percent takes the form of basic grants from the Research Council.

Partners in cooperation

SINTEF cooperates closely with the Norwegian University of Science and Technology (NTNU) and the University of Oslo. NTNU personnel work on SINTEF projects, while many SINTEF staff teach at NTNU. Our collaboration involves widespread common use of laboratories and equipment, and more than 500 people are jointly employed by NTNU and SINTEF.

International activity

In 2006, 12 percent of our turnover derived from international contracts. About one third of our international turnover comes from the EU's research programmes. We give these high priority, because we believe that it is important to participate in multinational knowledge-generation efforts, and because such projects give us access to interesting networks.

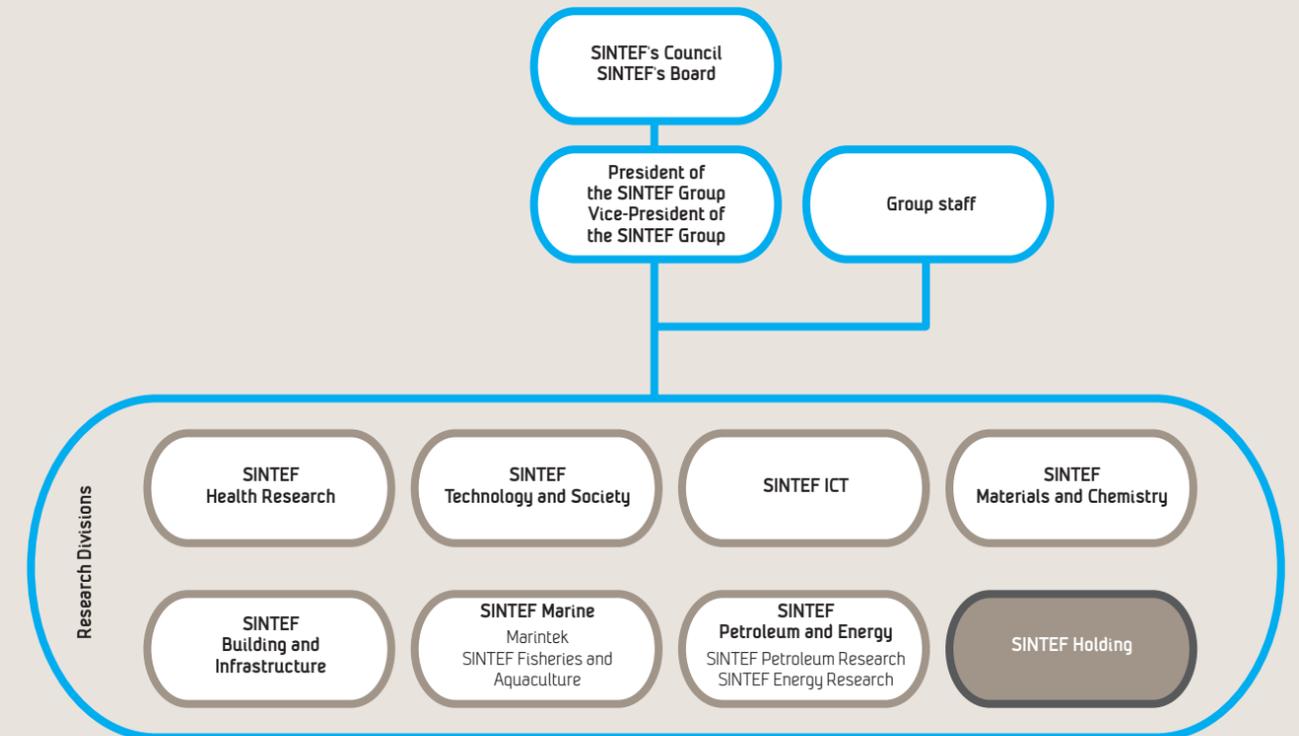
The rest of our international turnover comes from contract research projects performed on behalf of overseas clients. Our ambition is to grow in other countries, and for this reason we are investing in areas in which we are particularly strong: oil and gas, energy and the environment, materials technology and marine technology.

Commercial spin-offs

SINTEF also acts as an incubator for new industrial companies. In 2006, we were involved in the commercialisation of 12 SINTEF technologies, through licensing agreements and the establishment of new companies. We are active owners of our start-up companies, and we help them to continue to develop. Selling our shareholdings in successful spin-offs realises liquid assets that we subsequently invest in the generation of new knowledge. Nevertheless, the most important part of our work is the development of existing industrial companies. Every year, SINTEF supports the ongoing development of some 2000 Norwegian and foreign companies via its research and development activities.



Our organisation



SINTEF Health Research is one of the largest health research organisations in Norway. We have wide-ranging solidly-based knowledge of both medical subjects and methods, and are capable of analysing and solving problems in an integrated manner.

SINTEF Technology and Society offers R & D in the fields of technology management, working life and transport. The division also has a subsidiary company; SINTEF MRB AS.

SINTEF ICT offers integrated research-based knowledge via access to a broad platform of technology and competence in ICT.

SINTEF Materials and Chemistry possesses top-level expertise in the fields of materials science, applied chemistry and applied biology. We work closely with industry in the development of advanced materials, products, processes and tools. The division also has two subsidiary companies; SINTEF RTIM AS and Molab AS.

SINTEF Building and Infrastructure is the third largest building research institute in Europe. It was established in 2006 following the merger with the Norwegian Building Research Institute (NBI). The division also includes the subsidiary company SINTEF NBL AS.

SINTEF Marine consists of MARINTEK and SINTEF Fisheries and Aquaculture, and it deals with exploitation of the marine environment.

SINTEF Petroleum and Energy comprises SINTEF Petroleum Research and SINTEF Energy Research, and operates within the whole of the value chain for petroleum products and sustainable energy systems.

SINTEF Holding was established with the aim of separating out SINTEF's activities at the interface between commercial activity and research from our core activities. SINTEF Holding is a taxable entity, which comprises strategic ownership and newly established companies.

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<http://www.sintef.no>

Unni Merete Steinsmo

President of SINTEF

SINTEF

What will characterise our future?

What factors will affect our future? What are the challenges and possibilities we face as a society, and what should be our contributions and our roles? For SINTEF, which aims to be of general benefit to society, questions like these form a natural part of our planning processes.

Attaining the goal of sustainable global development is a demanding task. We need to identify new solutions and develop better technology to deal with the climate changes that mankind has created. SINTEF regards it as its task to develop concrete solutions. In this year's Annual Report, we describe our research in solar cells and CO₂ management, fields of which we lie at the international cutting edge.

Sustainability is also a matter of accepting joint responsibility for human rights, work and social welfare; and a common resistance to corruption and other economic crime. In all these aspects, SINTEF intends to be an active partner.

Our society has always been built on knowledge. Today, we possess the technology and know-how that enable us to study both industrial processes and living organisms at atomic and molecular level. On a foundation of basic understanding of physical processes, we perform analyses and simulations of complex systems such as oil and gas transport in a single pipeline or the flow of blood through the heart.

Technology is knowledge put to use. The development of "new" technologies such as ICT, biotechnology and nanotechnology illustrates this truth. These fields are growing in importance and are being integrated into other areas such as materials technology, the hospital operating theatres of the future, and the environment in which we live.

This development means a great deal to us as researchers. We still need to be competent in

our own fields, but we must also cooperate more across academic boundaries. Arenas in which technologists, social scientists, doctors and biologists meet in order to innovate in concert will become more and more important.

Innovation does not usually start with research. Analyses of innovative companies show that new products, processes and services are the result of interactions among customers, suppliers, the research sector, consultants and financial institutions. For SINTEF, education is an important aspect of such interaction, as is shown by our partnership with NTNU and our cooperation with the University of Oslo.

Traditional economic theory has regarded research as an activity that lies outside the market. New theories and practical experience show that research is actually a "near-market" activity. As far as SINTEF is concerned, this has long been the case; we have always collaborated closely with our clients.

Research institutions are open competence arenas that are becoming increasingly important. Major companies with ample capacity to do their own research perceive the value of cooperation with research institutes. The high level of interest shown by industry in participating in the new Centres for Research-based Innovation is an expression of just this understanding. SINTEF is proud of having played a role in the creation of these new centres of innovation, and we introduce some of them in this Annual Report.

SINTEF wishes to be a tool for the positive development of society, acting through research that generates solutions that will make a difference.

Our vision of "Technology for a better society" is much more than a fine phrase; it is a guideline that we must all follow.

A handwritten signature in black ink, which appears to read "Unni Steinsmo". The signature is written in a cursive, flowing style.

advanced materials

sensor technology

energy systems

road planning

noise and air calculations

metallurgy

traffic psychology

electric power technology



At SINTEF, 1900 people in 90 different departments and scientific groups are working to make your everyday life a little better.

Acoustics • Applied Cybernetics • Applied Economics and Operations Research • Applied Mathematics • Applied Mechanics and Corrosion • Aquaculture Technology • Architecture and Building Technology • Basin Modelling • Bio Energy • Biotechnology • Building Process • Building Services, Energy and the Indoor Environment • Coast and Harbour Research Laboratory • Combustion Engineering • Communication Systems • Concrete • Cooperative and Trusted Systems • Current applications • Distribution Asset Management • Drilling and Well Construction • Electric Power Technology • e-Maritime • Energy and Indoor Air Technology • Energy Conversion and Materials • Energy Markets • Energy Processes • Energy Systems • Energy Systems and Environment • Epidemiology • Fisheries Technology • Formation Physics • Gas Technology • High Voltage Components • Health Services Research • Hospital Planning • Hydrocarbon Process Chemistry • Hydrodynamic Laboratories and Production • Instrumentation and Microelectronics • Insulation Materials • International Projects and Consulting • International Operations • Knowledge Transfer • Knowledge Work • Living Conditions and Service Delivery • Maintenance Technology • Marine Environmental Technology • Marine Operations and Simulation • Marine Resources Technology • Materials and Structures • Medical Technology • Mental Health Services Research • Metallurgy • Microbiology • Microsystems and Nanotechnology • New Praxis • Offshore Hydrodynamics • Operations Management • Optical Measurement Systems and Data Analysis • Process Technology • Processing Technology • Production Engineering • Production Planning • Production Technology • Productivity and Project Management • Refrigeration Engineering • Road and Railway Engineering • Road and Transport Studies • Rock and Soil Mechanics • Safety and Reliability • School and Education Research • Seismic and Reservoir Technology • Ship and Ocean Laboratory • Ship Technology • Smarter Together • Software Engineering, Safety and Security • Strategy and Logistics • Structural Engineering • Synthesis and Properties • System Dynamics • Transport Safety and Informatics • Water and Environment • Water Resources • Wellstream Technology • Work Physiology

Together, we are creating technology for a better society

<http://www.sintef.com/job>

Olav Eftedal

Company Doctor and cyberneticist

SINTEF

Doctor of deep diving

When cybernetics scientist Olav Eftedal found that he didn't understand the term "neutrophil granulocytes" he decided to become a doctor, because he likes to go into things in depth; quite literally. And his employer has given him a unique opportunity to do just that.

Anchorage, Alaska: 1997. A young cybernetics scientist employed by SINTEF Health Research's Dept. of Extreme Work Environments is at a conference on diving medicine. The presentations are discussing what happens in cells; physiological processes that are described using highly complex terminology. Olav Eftedal fidgets in his seat. He is frustrated, because expressions such as "neutrophil granulocytes" and "complementary activation" are beyond him.

Eftedal has toyed with similar ideas before, but the question comes to the forefront of his thoughts again: should he start to study medicine? Back home from Alaska, he talks to his boss and asks if he can take some medical courses along with his job.

This was a matter of economics, since any studies would have to take place in parallel with his research job, in which he was working on diving equipment and procedures.

His request was given a positive reception. Since his boss liked the idea of having a cybernetics expert with a medical degree, he gave Eftedal an extremely flexible work schedule.

"Without the flexibility that SINTEF as my employer offered me, I would never have been able to develop in this way across disciplines", says Olav Eftedal.

Six years later, he finds himself on an idyllic island in Thailand, not as a tourist but as a

newly qualified diving doctor.

"I dive myself, and I had taken part in some studies of decompression sickness – "the bends" – while I was studying medicine. So when I was offered this job, I took off for the Far East with my partner and our new-born son."

On the little island of Koh Samui, Eftedal found that he had a large number of patients with decompression sickness, which gave him the idea of working for his doctorate on this topic. Now he is back as company doctor at SINTEF, where one of his tasks is to keep the institution's own divers, who work in the world's largest ocean basin at MARINTEK, in good physical condition. At the same time his employer has once again given him the chance to study more. Now he is taking specialist courses in work medicine, another area that he finds is closely related to physical activity.

"Eighty or ninety percent of the work-related illnesses that I meet as company doctor are either skeleto-muscular or psychological in origin. I believe that physical activity has both preventive and curative effects for patients in these categories.

"The Work Environment Act also requires employers to consider measures that will encourage employees to undertake more physical activity," says Eftedal.

This summer, he will defend his doctoral thesis on decompression disease and how it can be avoided. The deep-diving doctor has also helped to "revive" a pressure chamber that had been pensioned off by the Armed Forces: at this moment, it is being installed at Trondheim Fire Brigade, with financial support from SINTEF, among others. The idea is to make life a little bit safer for divers in mid-Norway.





<http://www.sintef.com/newpraxis>

Lisbeth Øyum

Senior Scientist

SINTEF Technology and Society

Boss researcher

A few years ago, Lisbeth Øyum met a really good boss. According to the manager himself, he had not been so good in his previous job. Øyum thought to herself: "Why should that be?", and she is still doing research on the very same topic.

"Among other things, you have worked on reorganisation in the public sector. How does one really do research in an area like that?"

"There are many ways of doing it, but what is certain is that if you want to understand the subtleties of the process, you need to get in close; you must go out and meet people where they are actually working. You have to see them in their daily work. In the project you mentioned, one of the places I was studying was St. Olav's Hospital here in Trondheim, where I interviewed managers and employees in order to identify some good examples of good "management for change"."

"There is a lot of talk of the "will to change" today. What does this mean in practice?"

"The will to change is as much a matter of something that exists or is created in the workplace, as of a characteristic of the individual. If change within an organisation is to go well, it is important that we should train ourselves to cooperate. Once that is done, we can do anything. And cooperation does not mean that we have to look for harmony; honesty and curiosity regarding the point of view of others are key values."

"That sounds fine. But how do you create an honest workplace?"

"If you want to create a climate of honesty, you

need to dare to tell what it is like to be a boss. What your tasks are, how you are measured, what you like about the job, and what you think is difficult about it. If you can convey this information to your colleagues, it will be difficult for them to shout you down. They will be forced to be constructive."

"But if they aren't, in spite of everything?"

"In that case, it is a matter of the work environment. In a good company you will have responsible colleagues who help to develop a good work environment. If you want more responsible colleagues, employee conversations should act as one channel for feedback to the manager. However, there is no ready-made recipe for good leadership; it is more a question of whom the manager can work well together with. If cooperation is not functional, it is important to understand why there is a poor match between the manager and the organisation."

"There is no ready-made recipe, you say. But surely there is some general advice you can give to any manager?"

"Of course. As a leader, you must realise that you are always visible, and that you will almost always be heard. If you are aware of that, you are already on the right track, because then you have to do what you said you would do, and you need to be able to justify it. And to justify your actions to others, first you have to justify them to yourself."

"Anything else?"

"Practise listening. Get to know your colleagues' point of view before you present your own."



architecture

cybernetics

concrete

logistics

communication systems

health

natural stone

sensor technology

Every second, millions of choices are being made; some of them small, others big.

Choosing an education and a career means making a choice for life. For many years, SINTEF has been one of the first choices of students when they are looking for their first job. Perhaps because we offer our people challenging tasks, the freedom to develop projects and solutions that cut across scientific boundaries – and enough room to balance work and leisure interests. This has made us one of Europe's most exciting research centres.

<http://www.sintef.com/job>

Together, we are creating technology for a better society

<http://www.akerkvaerner.com/coldbending>

<http://www.akerkvaerner.com>

Freddy Altø

SINTEF customer

Aker Kværner Cold Bending AS

The steel man

In a locked safe, in an office, in a hall, in a little village well-known for its industry and its Lotto millionaires, lies a research report bound in blue. Well guarded and greatly prized.

"This is our door opener. Without it, we would be unable to talk to our customers. You see, no-one believes that what we do is possible until they are shown SINTEF's test results in print," says Project Manager Freddy Altø about the report.

We are on the Verdal industrial estate, at Aker Kværner Cold Bending AS. Not long ago, the windows of the manufacturing hall here were as dark as the windows of an Italian mafioso's limousine. Outsiders were not allowed even a glimpse of how the company created its unique product: large, long, heavy pipes that snake in every possible direction, but without a single weld. Pipes that are now being used by the petroleum industry and fabrication companies all over the world.

"We are still playing some of our cards close to our chest, but the darkened windows have gone, and we are quite happy to talk about cold-bending technology," says Altø. What happens when we bend a large pipe is that the material stretches on the outer radius but is compressed on the inside of the bend. The molecular structure of the steel is altered.

When the company started to utilise this more than 100-year-old principle to bend metal

pipes, none of its customers believed that this could be done on materials of the dimensions that the sector demanded.

Not so strange, perhaps, because when we bend a metal bar, it is logical that it will crack, or it may simply be weakened, and then break after a while. Pipework that bends at different angles is usually the result of welding in pre-fabricated bends, a process that takes time; and time means money. That was the business idea behind the adoption of the cold-bending principle: if the company could develop cold-bending machines for large-diameter pipes, it would be competitive with low-cost countries such as China and Poland.

Today, Aker Kværner Cold Bending is the world leader in its field – thanks to innovative thinking, research and six large machines which, with the aid of advanced control systems and hydraulics, silently bend pipes of up to ten inches in diameter into the most complex shapes.

The company motto is that no job is too big – but nor is it too small; which is why its work ranges from producing sculptures and spare parts for veteran cars to bending large-diameter pipes for the offshore industry.

"More and more customers are beginning to realise what our technology is capable of. But without that report in its blue cover, we would probably still be arguing with the metallurgists", says Freddy Altø with a smile.



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<http://www.sintef.com/pipelines>

Øyvind Hellan Senior Scientist Marintek/SINTEF Pipelines

The pipe layer

Øyvind Hellan (45) is project manager for the SINTEF Group's Pipelines Programme, which is both long and deep. In the course of the past three years the research foundation has performed research projects worth no less than NOK 300 million on pipeline technology for oil and gas transportation. These efforts have led to high-technology solutions that lie a thousand metres below the surface of the sea, but which are remotely controlled from ashore.

"Øyvind Hellan, what is all this about?"

"It is about coordinating the activities of many research groups, so that together we will be stronger than if each group was working on its own. SINTEF is developing aspects of pipeline technology that range from pipe-laying, strength and lifetime estimates, power supply, stability analyses, materials development and sensor and control systems, just to mention a few. Each group is working on its own speciality, but they all pool their knowledge for the benefit of the same product. Altogether, we are putting as much as 50 person-years of effort into this field, so we think that it is a good idea to work together."

"Why is pipeline technology a SINTEF Group effort?"

"Because pipeline technology is a field in which we are already good – and because it represents a major market for us, since there are a number of major potential customers who are looking for services throughout the whole value chain. SINTEF has a number of research

groups that are world leaders within their own specialities in this field. This means that there is a lot of potential for using the results obtained by one speciality to support another, and to work together. In other words, we want to do one another good."

"What does the programme consist of?"

"We are working at several different levels. First, we need to build networks. We hold regular meetings at which we receive input from various specialists, and we tell each other what we are doing, what we have done and what we can do. This gives everyone who is interested an insight into aspects that could be useful for their own activities. The next thing is that we are developing new ideas, which may be based on links that have been created between various research groups. Finally, we are trying to become more visible to others, which is to say that we wish to market SINTEF's wide range of competence in everything related to offshore pipelines."

"Can this be regarded as socially useful research?"

"Absolutely. What we are doing in the fields of technology development and producing new solutions helps to strengthen operators and supply companies in the Norwegian and international offshore sector, and helps to generate new jobs or secure existing jobs. In a wider perspective, the technology is helping to ensure that community resources can be exploited more cheaply and with less risk."

Champions League in goods manufacturing

These persons have an ambitious goal for Norway's goods-manufacturing industry: the value of goods produced per employee will rise from one to four million kroner. They intend to reach this goal together with 16 Norwegian manufacturing companies. The project will be led from Trondheim and will have an industrial division in Raufoss.

NORMAN (Norwegian Manufacturing Future) is one of 14 Centres for Research-based Innovation (CRIs). The underlying idea is to strengthen Norwegian research groups that cooperate closely with heavily innovative groups. Being awarded CRI status by the Research Council of Norway means having passed through the eye of the needle. The applicants were very strictly judged in terms of their scientific quality, industrial relevance and potential for innovation.

SINTEF is a member of eight CRIs, and hosts three of them.
We are grateful for the confidence shown in us.

<http://www.sintef.com/cri>
<http://www.rtim.com/rtim>



From the left:
Sverre Narvesen, RTIM; Odd Myklebust, SINTEF Technology and Society; Heidi Dreyer, NTNU; Catrine Larsen SINTEF Technology and Society;
Tormod Jensen, Teeness.

http://www.esa.int/esaHS/SEMJ8JZBYTE_iss_0.html

Atle Honne

Senior Scientist

SINTEF ICT

Environmental watchdog in space

As a child, Atle Honne read everything he could find about the stars. Half a century later, parts of his own life's work will be heading for the heavens.

In August 2007, the "Endeavour" space shuttle will leave Earth with the apple of Honne's eye in its baggage: gas measurement equipment and its associated software for checking astronauts' "indoor" climate.

A few days later, the 59-year-old SINTEF scientist will sit in a control room at NASA in Houston, where he will check that everything is working properly when the equipment is transferred to the International Space Station (ISS), where it will be installed and tested.

The measurement system, known as ANITA, is the result of a cooperative project between SINTEF and the German company Kayser-Threde GmbH. Honne has been project manager on the Norwegian side since day one of the project. But although Honne appears here beside a cardboard cut-out of astronaut Christer Fuglesang, the adult scientist is no "space freak".

"My involvement, and SINTEF's, is due to the fact that the measurement technology involved is also highly suitable for use on Earth. It can be used for everything from monitoring industrial processes to checking the indoor climate of submarines and other environments where such checks are important," says Honne.

All the same, it is a feather in his cap that the system has become part of the space adventure.

"It is the most demanding market you can image," says Honne proudly.

The idea of ANITA is to prevent astronauts in

the Space Station from having to breathe in unpleasant, toxic or carcinogenic gases. Just as on Earth, gases diffuse out of walls, furnishings and equipment. Others may come from leakages or overheating, while the human body also emits gases. ANITA will enable astronauts to adopt countermeasures in the event of leaks or failures of the air purification system.

The gas monitoring equipment already installed on board the ISS measures only a few gases frequently and rapidly. Others are checked with a reaction time measured in hours, while some can only be measured after air samples have been returned to Earth.

ANITA is the leading candidate to take over the measurement programme on a permanent basis. The fully automatic system is sensitive, recognises and indicates the concentrations of individual gases, works rapidly and can present its results without delay. It "sees" the gases by means of beams of infrared light. Honne has developed the methods that the system uses to interpret its measurement data.

ANITA will be tested on board the ISS for ten days, then NASA will use the system to acquire better air-quality data, in the first instance for six months. If ANITA passes its exams, the next version could become the space station's regular air-quality monitoring system.

Back on Earth, Honne regards an ideal working day as one during which he has helped to produce results that "improve human health and make a few companies more wealthy, while giving me some interesting work to do".

"If we had only managed to involve a Norwegian supplier, I would have called this gas measurement project the perfect job..."



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bioenergy

environmental analyses

water and environment

solar energy

natural stone

design of highways and streets

behaviour in traffic

foundations

The courage to change. The knowledge needed to do so.

Sustainable development demands changes. At SINTEF, we want to find solutions that can make a difference. This requires both courage and wide-ranging knowledge, which is why we work within disciplines ranging from health to energy supply, road planning and materials technology. Because holistic solutions bring the world a step ahead.

Together, we are creating technology for a better society



<http://www.sintef.com/ethics>

Svein Nordenson

Ethics Ombudsman and Senior Scientist

SINTEF

The "Ethics Ombudsman"

SINTEF's Svein Nordenson believes he is the first person to hold such a position, since he has Googled for "competitors" without result. Nordenson has a warm glance behind his spectacles, and a pleasant personality under his grey beard and curly hair. But then, his role is not that of a moral watchdog – rather, it is to persuade SINTEF's staff to ask themselves the "right" questions.

"I would like to encourage them to ask questions about doubtful activities, so that fewer such activities will emerge in the future," he says. "After a while, raising questions of this sort right away and getting a rapid response should become a reflex action."

Nordenson feels that there was a need for his newly created position as ethics ombudsman. Relevant questions and ethical dilemmas have been trickling in regularly since last autumn. He himself has been making the rounds of internal gatherings and management meetings in order to survey and hear about general ethical dilemmas, both current and previous.

So what are these dilemmas? According to Nordenson, many cases centre on interpersonal conflicts that come to head in deciding who should be included in the list of authors of a report. It is a matter of status to appear on a list of authors, but what happens when the person responsible for the report absolutely refuses to include a person with whom he is in conflict?

"What has become known as the "Iranian Affair" has been at the centre of a great deal of attention during the past year. It was important that the matter was flagged internally, and it was also good that as early as autumn 2003, the Board resolved that the contract with Iran should never have been signed. The contract was annulled, but even so, the case ended with SINTEF Petroleum Research being fined for breaking the law. The positive result of the

process was that we became more focused on ethics," says Nordenson.

Research ethics are another example. Some people find themselves in an ethical dilemma when they suddenly have to take part in military research, or research related to abortions or gene technology. Nordenson has a clearly defined position here: in cases of this sort, the person concerned must have the right to refuse to participate.

The election of the chairperson of SINTEF's Council is another typical problem. The statutes were changed during the last period to allow the chair to hold this position for up to four periods. But what do we do when the current chair was involved in bringing in the new rule? Some people would say that he should not be allowed to benefit by it. "Is it really as simple as that?" asks Nordenson.

Many companies have a set of ethical guidelines, and some also have ethics councils. However, SINTEF is the only one to have an ethics ombudsman, an ethics council and an ethics brochure. SINTEF management has sent out a powerful signal by putting so much effort into raising the level of awareness of this topic. Although Nordenson regards the SINTEF initiative as something to be admired, he would like to see his own position become superfluous:

"A high-school teacher of mine used to say that the most important task of someone who brought up children was to make herself or himself unnecessary. That is what ought to happen to me too. Our ethical efforts need to be broadly based in order to raise the level of consciousness; then they can be reduced once the new culture is well established. At the same time, all companies ought to keep a warning channel open, and such a channel needs to be permanently installed: that is, it should act as a safety valve".

<http://www.sintef.no/ame>

Ingunn Geving/Stian Furøy

Research Scientist and fisherman

SINTEF Health Research

Life-saving design

A big white carton made fisherman Stian Furøy curious. It may well have saved his life.

A June afternoon last year in Sørvær, Finnmark's gateway to the Lopp Sea. Stian Furøy (27) and a companion are going out to catch saithe for their dinner. Going down to the boat, Stian sees a parcel in the family's boathouse. He has no idea what it might be, and rips off the paper.

At the same moment, Ingunn Holmen Geving (38) is working in her garden in Trondheim. She is enjoying the sun, and has no idea that the fisherman's work clothing that she has helped to develop is about to be "baptised" about 1000 kilometres further north.

On the island of Sørøya, Stian Furøy pulls a set of oilskins out of the package. The two-piece survival suit is safety equipment that Gjensidige, his insurance company, sends to clients who are professional small boat fishermen. The cover letter mentions buoyancy elements in the oilskin trousers. The suit is intended to save lives, while still being comfortable to wear.

Stian puts on the suit. Eight months later he is sitting right opposite Research Scientist Ingunn in a boathouse, explaining what happened later that summer's day that could have been his last.

Over strong hot coffee – "works best as a paint remover" – as Steinar Furøy, Stian's father and colleague says, he talks about their 14-foot fibre-glass boat, and about the gillnet caught in the propeller. A breaking wave completely fills the boat, and the two fishermen suddenly find themselves in the ice-cold sea.

"Wearing the suit meant that I was standing in

the sea, with my head well above the water. If not for the suit, I might well have panicked, and I don't know what might have happened then," says Furøy.

The fisherman remembers that his companion caught his foot in the net. Stian Furøy was calm enough to pull his boot off and work him free.

The two men caught hold of the boat's sternpost, which was sticking out of the water. Stian Furøy's mobile telephone was a little damp in his trouser pocket, but dry enough to allow him to send an alarm. The lifeboat soon turned up, and everything ended well.

While Furøy is telling his story, Ingunn Geving has noted that the survival suit did what it was supposed to do. "This story is enough to make you feel humble," she says quietly.

Development of the survival suit began with a survey of what fishermen wanted and needed from their work clothing. As project manager, Ingunn Geving led this phase of the project, while Product Developer Jarl Reitan, a colleague at SINTEF, was the principal architect in the design phase. In order to provide wearers with sufficient mobility, he incorporated ideas that have been used in snowboarding suits and lifejackets for canoeists.

Even before the new clothing was launched, fishermen had already reported to Regatta, the manufacturer, that they liked the design. But not only the fishermen approved it: in March 2007 the design was awarded the "Good Design Award" by the Norwegian Design Council.

However, Stian's story is probably what most warms the hearts of the prize winners.



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A comeback for concrete

This bunch of people wants to bring Norwegian concrete research back to its world-leading position. They are the leaders of the Concrete Innovation Centre (COIN) and will develop new types of concrete, new construction techniques and building methods for this plastic material. Concrete can be used as a reservoir of both heat and cold, and could thus help to bring us closer to the vision of zero-energy houses.

COIN is one of 14 Centres for Research-based Innovation (CRIs). The underlying idea is to strengthen Norwegian research groups that cooperate closely with heavily innovative groups. Being awarded CRI status by the Research Council of Norway means having passed through the eye of the needle. The applicants were very strictly judged in terms of their scientific quality, industrial relevance and potential for innovation.

SINTEF is a member of eight CRIs, and hosts three of them.

We are grateful for the confidence shown in us.

<http://www.sintef.com/cri>



From the left:
Professor Terje Kanstad, NTNU, Dept. of Building construction; Technical Manager, Dring, Berit Lanke, Unicon AS; Centre Manager, Senior Scientist Tor Arne Hømmer, SINTEF Building and Infrastructure; Research Scientist Dring, Hedda Vikan, SINTEF Building and Infrastructure; Chief Scientist, Professor Harald Justnes, SINTEF Building and Infrastructure.

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www.sintef.com/mabfot_uk

Ove S. Grande

Senior Scientist

Energy systems

Kilowatts in a high-interest account

If Ove S. Grande (54) gets his way, as many as possible of us will voluntarily switch off less important uses of electricity when it is in short supply and prices are high. During the past few years, this senior scientist has been working on national and international projects aimed at finding ways of encouraging small and large electricity customers to become more conscious of their patterns of consumption.

"You regard private electricity consumers as an important resource. Why is that?"

"We are still using more electricity than we produce, while it has become more and more difficult to develop new generating and transmission capacity. This means that it is essential to exploit the potential for making savings on the consumption side. Most of us have consumption that we can do without for short periods, and it is particularly important to save when electricity is in short supply. If we can offer our customers electricity contracts and grid tariffs that encourage them to reduce their consumption, we can save society large amounts of money."

"What sort of solutions could make a difference?"

"Fixed-price contracts with the possibility of selling electricity back at market rates are one possibility. These are electricity supply contracts in which the fixed price is for an agreed number of kilowatt hours, and in which the customer will gain by saving electricity when the price is high. New measurement technology enables people to read off their consumption, as often as every hour, and consumers themselves can decide when they wish to save electricity or move their consumption to a low-price period. The kilowatts that they do not use are sold back to the energy market by the electri-

city company."

"And this can pay during certain periods?"

"Yes, particularly last summer and autumn, when electricity prices were about twice as high as they had been in January of the same year. Customers on that tariff could sell their spare electricity back at a high price and make a good profit. That sort of thing really does encourage people."

"Are there other possible ways of making savings?"

"Yes. In one of our pilot projects, the electricity company disconnects the household hot-water heater during two periods of the day when a lot of electricity is being used; for a few hours in the morning and the evening on weekdays. Studies have shown that if we disconnect the hot-water tank between 8 and 9 a.m., when electricity consumption in this country is at its highest, households would save an average of about 600 W per hour."

"What is that equivalent to?"

"If we multiply by one million customers, or half of the households in Norway, it would come to a good 600 MW, which is more electricity than the largest generator in Norway is capable of producing."

"Do people become more conscious of their consumption when they themselves can control it?"

"Yes, we believe that new technology and new price structures will encourage customer to reduce their electricity consumption when this is what is most needed. It is all a matter of changing people's patterns of consumption, and that is a challenge in itself," concludes Ove S. Grande.

<http://www.sintef.com/ts>

<http://www.stfk.no>

Tore O. Sandvik

County council chairman

Sør-Trøndelag

Chief with faith in brain power

He is captain of the South Trøndelag team, and is convinced that industry in this part of the world can be a world beater – as long as the members of the team pull in the same direction.

In his dark suit, county council chairman Tore Sandvik is standing with his pen in his hand as we arrive, ready to sign two letters: powerful appeals to the management of Statoil and Hydro to make Trondheim the research headquarters of the newly merged oil company, which is about to become the biggest offshore operator in the world. Later Trondheim was the chosen location for the joint company office.

While the ink is still drying, the mobile telephone on his desk vibrates: an SMS from the office of the Prime Minister. Then the audience can begin. The 37-year-young Labour Party politician is quick to point out that as far as natural resources are concerned, Norway's two Trøndelag Counties make up one of the richest regions in the world, with good soil, ideal conditions for salmon farming and a continental shelf that is full of oil and gas.

"But our most important advantage is the concentration of brain power at NTNU/SINTEF," says Sandvik. In 2006 he held frequent meetings with SINTEF, with the aim of further strengthening cooperation between the research foundation and its home county – knowing perfectly well that in the course of the past 15 years, SINTEF has stepped up its regional involvement.

Through its subsidiary company RTIM, SINTEF has helped to build up a knowledge bank for industry in Raufoss, the heart of Norway's light metals cluster. SINTEF is also responsible for running an industrial development company for three municipalities in Western Norway. The research institute is also heavily engaged in technology transfer to small and medium-sized enterprises.

Sandvik also believes that his region is not

getting enough out of the intellectual capital on the Gløshaugen campus. He feels that there is a lack of committed networking involving the research community and heavyweight mid-Norwegian industrial companies.

The county council chairman points out what the Danes and Swedes have achieved in terms of innovation in the Øresund region, where they have assembled university- and knowledge industry-based groups into six formalised industrial clusters. According to Sandvik, a similar effort in his region could have turned Mid-Norway into a centre of gravity for the timber and paper industry, for example.

"Or take salmon. This region has the best fish farmers in the world and research groups that have part of the honour for creating the Norwegian salmon adventure."

As Sandvik sees it, the region has done a poor job of exploiting the intellectual power house that is NTNU/SINTEF – because local people have not been capable of understanding the explosive power of regional networks. He is happy to quote the legendary football trainer Nils Arne Eggen of Trondheim's multi-year league champion club Rosenborg, who said: "We simply have to get better at making each other good."

The county council chairman can glimpse the contours of what he is looking for – in the field of search engines. In the wake of the successful search engine FAST Search and Transfer, which originated in NTNU, both Yahoo and Google have set up shop in Trondheim.

"If regional networks can become strong enough, they will attract international capital, new companies, existing major industry and the best students. But for that to happen, all the local players must enter the field together. Rosenborg doesn't send its trainer Knut Tørum onto the pitch alone; if it did, it would be a long time until the next gold medal here."



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National CO₂ team

Twenty years ago, the concept of coal- or gas-fired power stations with CO₂ treatment was met with a shrug and a tolerant smile. The quintet pictured here share the honour for producing a change in attitudes since then, both in Norway and the EU.

"Interesting, but unrealistic and far too expensive," was the verdict when the concept was first launched. Since, then, Statoil has demonstrated that CO₂ from the Sleipner field in the North Sea can be stored deep below the North Sea. At the same time, SINTEF and NTNU have helped to put Norway at the forefront of research on the capture and storage of CO₂ from fossil fuel-based electricity generation.

Today, Norwegian research groups are members of a wide range of EU projects in this field. At home, SINTEF is leading a ten-year national project which will cost around NOK 200 million, the largest CO₂ project in Europe. The aim is to halve the cost of dealing with CO₂ in coal and gas-fired power stations.

No less!

<http://www.sintef.com/co2>

<http://www.dynamis-hypogen.com/>



From the left:
CO₂ Coordinator Olav Kårstad, Statoil; Senior Scientist Thor Meidell, SINTEF Materials and Chemistry; Nils A. Røkke, Director of gas technology at SINTEF; Professor May-Britt Hägg, NTNU; Chief Scientist Erik Lindeberg, SINTEF Petroleum Research.

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<http://www.sintef.com/innovation>

<http://www.verdanecapital.com>

Anders Lian

Managing Director

Sinvent AS

The talent developer

Anders Lian (46), managing director of Sinvent, is a developer of technological talent, an activity that encourages both business development and yet more research.

"Anders Lian, just what is Sinvent?"

"We are a company that is dedicated to commercialisation, and we are owned by SINTEF. We cooperate with SINTEF's research divisions in the hunt for good technological inventions, and we evaluate whether they are commercially capable of standing on their own feet if they are not to be used in the context of a project.

We might say that our work consists of turning a good idea into a company, or into a licence for an established company. One of our companies is Nacre, which won a NOK 200 million contract last year with the US Department of Defense, for its advanced earplug with built-in communication equipment. This was the result of long-term, goal-oriented efforts."

"Why has SINTEF established a company of this sort?"

"It helps to implement technologies and create jobs, and it is something that earns us money. What we earn is ploughed back into the milieu that made the original invention, so that it can make a contribution to new projects and more research. In this sense, what we do helps to contribute to SINTEF's vision of "Technology for a better society."

"How does Sinvent operate?"

"We often utilise the concept of "Compact Games" when we want to describe our operating model. This is a concept that we stole from the Lillehammer Winter Olympics – where the philosophy was that there should be a short distance between all the arenas. In practice, we

collaborate closely with our own divisions and inventors. We also enjoy close collaboration with industrial companies, venture investors and consultants in the commercialisation of our inventions. We are involved in process steering, patenting, market evaluations and business plans, just to mention a few aspects of the process. We also manage SINTEF's intellectual property rights and its licence and venture portfolios. Everyone in Sinvent takes part in the projects in different ways."

"2006 was a breakthrough year for Sinvent. In what way?"

"Last year we signed an agreement to cooperate with Verdane Capital (formerly Four Seasons Venture), which bought up all of 75 percent of our portfolio. As far as SINTEF was concerned, the sale was a good source of income, which has already been returned to the research groups that had the original ideas. We have also ensured that the companies have been given well-endowed owners who will strengthen their development. This demonstrates that SINTEF is developing world-class technologies and that we have been good at adapting them to a market.

Last year, we also carried out 12 commercialisation processes and negotiated a profitable large-scale sale of shares in Powel AS on behalf of SINTEF Energy Research."

"How would you describe Sinvent for an elderly aunt?"

Well, as you know, my dear aunt, SINTEF consists of very clever people who develop world-class technologies. The technologies that are not used in contract research, Sinvent transforms into businesses."



The aqua technologists

These five people are some of the most innovative persons in Norway. They play central roles in CREATE (Centre for Research-based Innovation in Aquaculture Technology), and they intend to ensure that Norwegian manufacturers of aquaculture equipment maintain their position as international leaders.

CREATE is one of 14 Centres for Research-based Innovation (CRIs). The underlying idea is to strengthen Norwegian research groups that cooperate closely with heavily innovative groups. Being awarded CRI status by the Research Council of Norway means having passed through the eye of the needle. The applicants were very strictly judged in terms of their scientific quality, industrial relevance and potential for innovation.

SINTEF is a member of eight CRIs, and hosts three of them.
We are grateful for the confidence shown in us.

<http://www.sintef.com/cri>

From the left:
Professor Torgeir Moan, Manager of NTNU's Centre for Ships and Ocean Structures (CeSOS); Research Scientist Leif Magne Sunde, SINTEF Fisheries and Aquaculture; CREATE Manager Arne Fredheim, SINTEF Fisheries and Aquaculture; Associate Professor Jo Arve Alfredsen, NTNU, Dept. of Technical Cybernetics; Executive Vice President Karl A. Almås, SINTEF Fisheries and Aquaculture.

<http://www.sintef.com/turborouter>

<http://www.sintef.com/optimization>

Atle Minsaas

Special adviser

MARINTEK/SINTEF Maritime Logistics

A ship, please. ASAP!

Atle Minsaas (53) has always been a holistic thinker, which is why the special consultant cannot think of technology without the concept of economics also popping up in his cortex. So it is hardly surprising that he has ended up as a logistics expert at MARINTEK in SINTEF.

At MARINTEK, his everyday work concerns problems that most of us never encounter, such as identifying optimal methods of moving shipping cargoes. This task could be described as a transport mosaic with a number of variables, more or less along the following lines: if a shipping company has 10 vessels and 30 cargoes, and we simplify matters by saying that all the ships can accept all the cargoes, in how many different ways can this freight puzzle be solved?

"This may not seem to be a particularly complex calculation, but a mathematician will soon see that the number of solutions is 10 to the power of 30. Looking at all of them would take longer than the lifetime of the universe! We also have to take into account stockholdings, land transport, harbour capacity and costs, to mention only a few of the pieces that need to find their right place in this enormous puzzle."

As a young man, Minsaas originally wanted to become an economist, but the majestic sight of the first floating drilling rig at Aker Verdal in the early seventies changed his mind. A year later, he was studying marine sciences at what was the Norwegian Institute of Technology, specialising in just the border area between technology and economics, and finally taking his doctorate in the same field.

Today, it is transport on the oceans of the world that Atle Minsaas works on: he plays a central role in this country's leading team of experts in marine logistics, which is made up of researchers from three different disciplines at SINTEF. The team consists of number crunchers and computer scientists from SINTEF ICT, specialists in shipping and route planning from MARINTEK and logistics experts from SINTEF Technology and Society. According to Minsaas, this is a perfect mixture, given the tasks that the shipping industry asks them to solve.

"These disciplines complement each other remarkably well. Metaphorically, we might say that we do the impossible by making two plus two add up to more than four. This is one of the strengths of SINTEF; that we can bring together competence from different disciplines that makes us even better and stronger than each of us as an individual. And of course we also have our close links with NTNU."

The strength of this collaboration was a decisive factor is the choice of Maritime logistics as one of the SINTEF Group's programmes of strategic special effort.

"In this programme we are trying to bring forth the next generation of decision-support systems for the commercial vessel operation by shipping companies. And we are already well on the way in international terms. This task has an important environmental perspective: transport by sea is the dominant form of global goods transport, which means that better utilisation of ships will have important environmental consequences."



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<http://www.sintef.com/sun>

<http://www.solenergi.no/english.html>

http://www.sffe.no/index_e.htm

<http://www.photon-magazine.com>

Egil Trømborg Project Director SINTEF Materials and Chemistry

Sun worshipper

According to Project Director Egil Trømborg, the Sun could become the new Norwegian oil. He just hopes that the authorities realise this in time.

Trømborg leads one of the Gemini centres that SINTEF and NTNU have set up in strategic fields of research. The 41-year-old heads our joint efforts in solar cell research, a field in which the whole sector is in the midst of a global race to develop new materials.

"Why can manufacturers not just continue to use traditional materials for the cells?"

"Because for years we have been making solar cells from offcuts and waste from the electronics industry. But now the supply has become insufficient to meet the needs of the solar cell industry. This has led to a call for new processes capable of turning sand into silicon that will be pure enough for solar cells. In the course of the race that is now in progress, the Norwegian solar energy company REC has improved the current process, while materials manufacturer Elkem and SINTEF have developed their own processes all the way from sand to solar cell-quality silicon."

"Why should Norway invest in solar cell materials and in solar cells themselves?"

"Because this gives us a unique opportunity to develop a modern industry based on renewable energy. Norway is already a major supplier of raw materials, including silicon. Using this as a springboard, and with a highly developed store of competence in materials technology, physics of materials and electronics, this country has already managed to create a strong and growing solar cell sector. REC has already become the largest integrated solar cell company in the world."

"You are asking for more public-sector support for solar cell research. Why so, when the Nor-

wegian solar cell industry seems to be managing so well on its own?"

"When a company purchases research and development services from institutes and universities, the competence developed by them becomes unavailable to everyone else.

The Norwegian solar cell sector invested MNOK 250 in R & D in 2006, while the state put only a little more than ten million into solar cell research. This means that only a small proportion of the research done here will be available to the whole of the Norwegian sector when it is in competition with the rest of the world. What we need now is a really major effort on the part of the authorities. Only large-scale public-sector efforts generate knowledge that can be shared."

"What would be the consequences of such a lack of shared Norwegian knowledge?"

"In the petroleum sector the authorities managed to create a strong foundation for Norwegian technology through their heavy involvement in the research side. In the solar cell field we risk being left without a foundation of this sort. In the long run, this could mean that the Norwegian solar cell sector could transfer its flag elsewhere. Without a large increase in public-sector support for solar cell research, Norway may well lose out on a huge industrial adventure. The rate of technological development just now is enormous. The solar cell train is just on the point of departure!"

"Is it a wish to make Norway even richer that drives you?"

"No, but solar cells can help to guarantee the welfare of Norway when our oil runs out. At the same time, they can supply developing countries with badly needed energy and drastically reduce emissions of greenhouse gases. Which wouldn't be such a bad idea, would it?"

Report of the Board 2006

SINTEF's vision is one of "Technology for a better society". Through first-rate solution-oriented research and knowledge generation, SINTEF creates significant value for its Norwegian and international clients, for the public sector and for society as a whole.

2006 was a good year for SINTEF in both economic and scientific terms. Our operations have improved, and turnover has increased by eight percent with respect to the previous year. This has enabled us to increase our self-financing of a number of key scientific areas.

Technology for a better society

The primary role of SINTEF is to act as a research and development partner for the private and public sector, via the development and dissemination of new knowledge. We will also contribute to the establishment of new knowledge-based companies and to supply premises for policy formation. We describe below a few examples of important activities from our work in the course of 2006.

The solar cell industry is capable of developing into one of Norway's most important industrial clusters. SINTEF Materials and Chemistry is collaborating with a number of industrial partners spaced along the whole value chain of solar cell manufacture. Super-pure silicon can be produced in a number of different ways, and Norwegian industrial companies have developed several processes, with important R & D contributions from SINTEF.

The rising level of atmospheric CO₂ is an important cause of global climate change. Many years of goal-oriented research have given SINTEF the status of one of the world's leading research centres for dealing with CO₂ from coal- and gas-fired power stations. Scientists at SINTEF Energy Research, SINTEF Petroleum Research and SINTEF Materials and Chemistry are competent in the whole of the value chain related to the capture, transport and storage of CO₂ in geological formations. In 2006, these research groups were allocated a significant number of competence-building projects by the Research Council of Norway, Gassnova and industry. SINTEF is also one of the most important research centres in the field of CO₂ capture and storage in the EU's Framework Programme, via its management of and participation in most of the EU's projects in this area. CO₂ research is one of many examples of cooperation among several disciplines at SINTEF, all aimed at supplying our clients with holistic solutions.

Climate change will also affect building in different ways. Via "Climate 2000", SINTEF Building and Infrastructure has put the impact of climate change on the built environment on the map. Methods of assessing functional capabilities under different climatic conditions have been developed. The results

have helped to make the construction industry more conscious of the need for, and the value of, local climatic adaptations. The methods involved are disseminated via the Byggforsk series of publications – the most widely used source of knowledge in the construction industry.

The safety of personnel on board freefall lifeboats on offshore platforms has been in focus during the past few years, a focus that has occasionally led to reduced levels of petroleum production on the Norwegian shelf. Wide-ranging studies of the high rate of acceleration and the strength of the hulls of various types of craft have been carried out. In collaboration with oil companies, the authorities and lifeboat manufacturers, the SINTEF company MARINTEK has put a great deal of effort into clearing up the most important aspects of this problem.

In a few years, chronic obstructive pulmonary disease (COPD) will become the third most common cause of death in the world. In Norway, 200,000 people are living with COPD, and every year another 9000 Norwegians become sufferers. The social costs associated with patients with COPD come to several billion kroner a year in Norway, and are rising. SINTEF scientists have set themselves the goal of finding out more about this group of patients. Their research has the aim of reducing the costs to society, as well as of providing better treatment and raising the quality of life of individual sufferers. This diagnostic study of COPD patients is being carried out by SINTEF Health Research in collaboration with Helse Midt-Norge.

Restructuring in the workplace is often perceived to be a stressful process. SINTEF Technology and Society has carried out studies aimed at generating more knowledge of how restructuring can be turned into a positive process that also provides benefits to employees. The researchers have studied organisations and companies that have made a success of restructuring, through almost 60 in-depth interviews with managers, trade union representatives and members of staff in seven public-sector bodies. The study has revealed a number of factors that enable managers to turn change into a positive process for the whole workplace.



The rapidly growing aquaculture industry is in need of new high-quality raw materials for feedstuffs. Today's fish feeds are based on fish-meal and oil produced from fatty marine fish species. These resources are limited. Marine zooplankton can be used as a raw material for fish feeds, and SINTEF Fisheries and Aquaculture has developed the "bubble trawl", a radically new concept for capturing such organisms on a commercial scale. The bubble trawl helps both to reduce unwanted bycatch and to increase the energy efficiency and profitability of this fishery, by reducing the area that needs to be trawled.

Medical instrumentation is an area of special effort that is being developed as a close collaborative effort between SINTEF ICT and SINTEF Health Research. Cooperation in medical technology is being developed with a number of international partners, including the University of Spartanburg in South Carolina and the University of Cape Town and Stellenbosch University in South Africa.

SINTEF ICT is also a member of a major health project in Southern Sudan, where a complete medical infrastructure, including ten field hospitals and five mobile clinics, will be built up in the course of five years. Several of SINTEF ICT's fields of competence are relevant to this project, including information systems, identification and security systems and medical measuring and sensor systems.

SINTEF regards it as an important part of its role in society to create new companies and workplaces based on its research. In 2006, Sinvent, a SINTEF company, carried out 12 commercialisations of SINTEF technologies via licensing agreements and the establishment of new companies. In 2006, Sinvent also signed a portfolio cooperation agreement with Verdane Capital, one of Scandinavia's leading venture capital management companies. Verdane Capital purchased 75 percent of the SINTEF Venture and Sinvent Venture funds, and assumed management responsibility for both of them. This joint effort frees up capital and capacity that will enable SINTEF to make new investments, and also brings useful new expertise to the companies that make up the funds' portfolios.

Satisfied clients

SINTEF wishes to contribute to wealth creation by creating new possibilities for our clients. Our relationship with our customers and our understanding of their needs are therefore of great importance. In 2006, we made systematic measurements of our clients' satisfaction with SINTEF's services. It is a pleasure to note that the results of the survey were consistently positive, although the study also reveals certain areas in which improvements could be made.

In 2006, SINTEF carried out a total of 6060 projects for 2074 clients. We have maintained good relationships with our most important customers, and have developed new ones. In 2006, for example, we signed a group-level frame agreement with Statoil.

The international proportion of SINTEF's turnover in 2006 was 12 percent, as against 15 percent in 2005. The foundation of our future customer base will be created by our ability to maintain and develop international front-line competence, and by our competitiveness in an international market.

SINTEF has increased its regional activity in Norway. Examples include the "Virtuous Circles" concept, RTIM in Raufoss and a growing regional involvement in Oslo and Mid-Norway.

Scientific quality

SINTEF's ambition is to be the most highly acclaimed research concern in Europe, a position that will enable it to attract the most interesting and demanding clients. If we are to achieve this, SINTEF will need to offer high quality in everything it does, and to be a world leader in selected areas of research. This will require systematic long-term development of research groups and individual research staff, and that our research is published and transmitted to the international research community.

Efforts to strengthen SINTEF's profile as a research group have continued in 2006, not least by encouraging publication in international academic journals. In 2006, the SINTEF Group had 725 such publications.

In 2006, the Research Council of Norway introduced its Centres for Research-based Innovation (CRI). These centres are aimed at building up or reinforcing Norwegian research centres that work in close collaboration with innovative industrial companies. SINTEF is a member of eight of a total of 14 CRIs, and is hosting three of them.

Strategic cooperation with the universities is essential for the maintenance of SINTEF's scientific quality. In 2006, SINTEF and NTNU adopted a joint strategy with the aim of becoming international frontline institutions. At research group level, this cooperation is manifested via our Gemini Centres, 17 of which have been established, 15 of them together with NTNU and two with the University of Oslo.

Attractive workplace

An explicitly stated important strategic aim of SINTEF is that it should be an attractive workplace. That it is already regarded as such has been documented by the 2006 work environment survey. Our staff find that their work is stimulating and leaves them "in surplus". The work environment survey serves to ensure and develop SINTEF's qualities as an attractive workplace. Thorough analyses are performed to determine the qualities that are worth fostering, and to identify where there is room for improvement. Good management is important in this connection. SINTEF makes systematic efforts to develop its management resources, such as individual managers and management teams.

Competition for competent staff is sharpening in a global market. This makes it ever more important to encourage and develop our existing staff, as well as to attract new colleagues. According to the Universum Study, SINTEF is attractive among students in our areas of activity. In 2006, we placed more stress on future recruitment by brand development and profiling at national and international level. These efforts will continue at Group level, and serious attention will be paid to them.

As of December 31, 2006, SINTEF had 1901 employees, an increase of 131 on the previous year's figure. Of this total, 963 were employed by the SINTEF Foundation. Ninety-two employees (13 percent) left the Foundation in the course of the year, while 86 joined us. Thirty-eight percent of the 1247 research staff in the SINTEF Group hold doctorates, and 191 of our staff come from a total of 50 countries outside of Norway.

Economic freedom of manoeuvre

In 2006, the SINTEF Group made an operating profit of NOK 35 million, an improvement of MNOK 11 over the figure for 2005. The sale of a portfolio of shares in spin-off companies, and a further sale of shares in Powel ASA contributed to a financial re-

sult of MNOK 52. The result for the year was MNOK 92 as against MNOK 59 in 2005.

There was a positive growth in turnover in 2006, in a good market. It will still be necessary to pay close attention to good operating practices in order to ensure that our results continue to be good.

As of December 31, 2006, the equity capital of the SINTEF Group was MNOK 988, equivalent to 51 percent of total capital. The corresponding figures for the SINTEF Foundation are an equity capital of MNOK 856, or 60 percent of total capital. Our equity capital and operating conditions, combined with growth in revenue, cost-saving measures and a satisfactory order reserve, provide a good basis for continued operation, and this is the assumption that underlies the presentation of our annual accounts. The boards of our subsidiary companies have performed similar analyses, and all have concluded that continued operation is justified.

The SINTEF Group has established a joint system for placement of the Group's liquid reserves. SINTEF is exposed to exchange rate fluctuations, since project revenues are in foreign currencies, while all or parts of our project costs are in Norwegian kroner. Most of our exposure is vis-à-vis the Euro and the US dollar. In order to limit this risk we utilise futures contracts in the currencies involved. Please refer to the Annual Accounts and their Notes 2, 12 and 13.

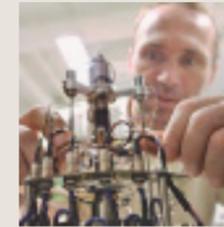
To the best of the knowledge of the Board, since the closing of the annual accounts there have been no developments of significance for the evaluation of the Foundation or the Group. The Foundation's accounting profit for 2006 comes to MNOK 72, of which MNOK 32 is transferred to other equity and MNOK 40 to the reserve for valuation variances.

In December 2006, SINTEF lost a tax case against the Norwegian state in Trondheim District Court. SINTEF has appealed against the judgement, and the case will be heard in the Court of Appeals in autumn 2007. The Board regards it as a cause of anxiety that the tax authorities appear to be attempting to introduce the principle of taxing research institutions in Norway. Such a taxation system would weaken central elements of Norwegian industrial and research policy. In the opinion of the Board, the Taxation Act needs to be made more explicit in order to make it clear that research institutions will continue to be exempt from income and wealth tax.

Ethics

In June 2006, the Board adopted new ethical guidelines for the SINTEF Group, and established an Ethics Council with its own statutes.

In September 2006, SINTEF appointed an ethics om-



budsman. The establishment of this position also means that SINTEF has established an internal channel for raising the alarm in this area, that satisfies new requirements in the Work Environment Act.

In August 2005, the Norwegian National Authority for Investigation and Prosecution of Economic and Environmental Crime (Økokrim) launched an investigation of SINTEF Petroleum Research for possible corruption in connection with contracts related to a project in Iran. On March 7, 2007 Økokrim fined SINTEF Petroleum Research for a breach of the General Civil Penal Code, section 276a (see section 276b), while a charge was laid against the former president of the company. Økokrim have stated that they have taken into account the fact that the company cooperated throughout the investigation, and that it has implemented a series of measures to prevent this situation from arising again. The Board of SINTEF Petroleum Research has accepted the fine.

SINTEF has implemented several measures to prevent this situation from arising again. Active efforts are being made to ensure that ethics and ethical dilemmas are discussed on an ongoing basis throughout the organisation, taking the new ethical guidelines that have been distributed to all employees as a point of departure. It should not be possible to question SINTEF's ethical standards.

Governance structures

SINTEF is located in Trondheim and Oslo, and has its headquarters in Trondheim. The Foundation and our subsidiaries operate businesses in several cities in Norway and abroad.

SINTEF's central management bodies are its Council and Board. Day-to-day management is in the hands of the Group's President. On October 2, 2006, our statutes were changed to satisfy the provision of the new Foundations Act. Since then, the Board has been the ultimate governance organ of the Foundation, while the Council provides advice to the Board, with the authority set out in the new Act and new statutes.

The Council seeks to ensure that the objectives of

the Foundation are pursued in accordance with its statutes, elects the Board, sets the fees to be paid to the members of the board and appoints an auditor. The Council is chaired by the Rector of NTNU, and it consists of 28 members, including representatives of NTNU, the University of Oslo, the Research Council of Norway, industry and employee and employer organisations.

The Board consists of nine persons, two of whom are primarily employed by NTNU, four are from industry or the public sector and three are tenured employees of the SINTEF Foundation. At the end of 2006, the Board had eight members, following the resignation of one member. The Board has responsibility and authority in all matters that are not assigned to the Council. The Board acts in accordance with SINTEF's statutes, the Foundations Act, and those provisions of the Limited Companies Act that apply to foundations. The Board appoints the President of SINTEF and sets her salary and other conditions of employment, as well as the framework and principles of remuneration of the Group's management team. The Board held nine meetings in 2006.

The Board of the Foundation is the Board of the SINTEF Group. The activities of the four research companies that form part of the Group are regulated via statutes, shareholder agreements and group agreements. Principles of group governance have been laid down, regarding how the activities of the research companies are to be coordinated with related activities within the other units of the SINTEF Group, and in accordance with the overarching goals of the Group's aims and strategy.

The SINTEF Group's management team is responsible for strategic management of the overall business of the group. The President of SINTEF is responsible for the day-to-day running of the company in accordance with the statutes of the SINTEF Foundation, group agreements and the Companies Act. The President has the authority to act on behalf of the Foundation, with the exception of purchases, sales and mortgaging of property and the purchase and sale of companies.

In 2006, SINTEF introduced a quarterly risk-repor-

ting system. The risk situation for each of the Group's divisions and companies is discussed by the management team, as well as by Group management and the Board of the Group. Risk-reduction measures are defined and implemented on an ongoing basis.

The quality assurance system has undergone a complete upgrading process in the course of 2006. The quality management system is certifiable according to ISO 9001:2000, and also includes the implementation of a common system for dealing with accident reports, undesirable incidents, other deviances and suggestions for improvements. In 2006, SINTEF was also registered in Achilles, which is a joint qualification system for suppliers to the petroleum industry.

Equal opportunities and family policy

The President of SINTEF is a woman. The gender distribution within the Foundation is shown in the following table.

Men	Women
Board	
50%	50%
Group management	
73%	27%
Managers	
60%	40%
Research staff	
75%	25%
SINTEF Foundation	
66%	34%

One of the aims of SINTEF is to have equal numbers of female and male researchers and managers. This means that SINTEF attempts to recruit women to new appointments and to develop female managers from its own ranks. In the context of recruitment, we emphasize promoting SINTEF as an attractive workplace for women.

SINTEF's 2006 work environment survey revealed no significant difference between how women and men perceive their work situation.

SINTEF intends to be an organisation that has room for well integrated people who have a life outside of SINTEF. We also want to be an attractive work-place for parents of young children. We therefore create suitable conditions to meet the needs of the individual for flexibility, and we subsidise kindergartens in Trondheim and Oslo.

Health, safety and the environment (HSE)

In SINTEF, HSE is our first priority, and our aim is to

eliminate all injuries. SINTEF wishes to have a work environment that our employees regard as good. SINTEF will not pollute the physical environment. SINTEF's HSE policy and HSE goals apply to all our activities, national and international.

We are putting continuous efforts into implanting a realisation of the importance of HSE in all parts of the organisation. In 2006, we had eight injuries that led to sick leave, which gave an H1 value of 2.4, compared with 2.0 in 2005. A total of 14 personal injuries produced an H2 value of 4.3, as against 5.0 in 2005. Reporting of undesirable occurrences is still too low. All in all, these figures show that the level of risk is too high.

In December 2006, a gas explosion in one of our laboratories injured a member of staff. An investigation committee has investigated the accident with the aim of identifying its causes and suggesting what measures need to be taken to prevent such accidents from happening again.

Sick leave remained stable at 3.5 percent in 2006, compared with 3.4 in 2005. In 2004, most of SINTEF's units signed an "Inclusive Working Life" agreement with the authorities. This has sharpened management focus on following up sick leave and employees who require special adaptations.

In 2006, SINTEF did not suffer any accidents that led to damage to the physical environment. SINTEF has regulations and established practices in place for conservation of the physical environment. The physical environment is also included in our steering system's requirements for risk assessment. This includes the substitution obligation, which involves replacing substances that pose a risk to health or the environment with less risky alternatives. There is still a need for development, systematisation and documentation in this area. In 2006, SINTEF carried out a preliminary survey of conditions that are relevant to the physical environment, as a basis for further improvement measures

Prospects and challenges for the future

The Research White Paper discussed by the Storting in 2005 stated that Norway should aim for an international front-line position in new technology, competence and knowledge, and that the country, given its high GDP per inhabitant and its high level of education, enjoyed all the conditions needed to become a leading research nation. With its strong research groups, SINTEF is capable of making an active contribution to achieving the aims of the authorities in the research and development sector.

The global economy is enjoying a long-term period of growth. This offers good opportunities, but many Norwegian companies are finding it a challenge to recruit and keep good staff.

The intention of the authorities to develop the Arctic has great potential. With its broad knowledge base, SINTEF can help to realise national ambitions for the Arctic, and balance the interests of industrial development, long-term resource management and the environment. SINTEF intends to give this task high priority in the future.

Energy and the environment are important topics at global level, and we can expect to see significant research resources being channelled into every link in the value chain in this area in the future. SINTEF has built up internationally leading research groups in CO₂ treatment and the efficient production of renewable energy, and will give high priority to increased research efforts in these areas in the near future.

2007 will see the start of the EU's 7th Framework Programme, and it will form a core element of SINTEF's work in the years to come. We have set

ourselves the goal of doubling our involvement in the Framework Programme over current levels, and this effort will play a central role in the work of SINTEF.

The public sector is increasing its investment in international research and development programmes. Basic grants to Norway's research institutes rose in 2006, but rose no further in 2007. It is essential to raise Norwegian basic funding to a level that is closer to that of equivalent institutes elsewhere in Europe.

It is also of decisive importance for Norway to be able to renew the national laboratory infrastructure to make it competitive in an international arena. Developing and equipping laboratories will require major investments, and this is a national task.

The Board wishes to thank all our members of staff and SINTEF's partners for the good work they have done in the course of the past year.

Trondheim, March 28, 2007



Kathrine Skretting
Vice Chairman



Jan Erik Korssjøen
Chairman



Elin Grimstad



Elisabeth Wille



Raghild Wahl



Frode Rømo



Jan Kleppe



Terje J. K. Andersen



Unni M. Steinsmo
President - CEO



CO₂ capture

bioenergy

wind power

hydrogen research

solar cell technology

environmental technology

CO₂ storage

energy saving

We are working to provide you with new alternatives. It is up to you to use them.

Here are some of the things you can do to reduce greenhouse gas emissions:
Use low-energy bulbs • Lower indoor temperatures a couple of degrees • Use a thermostat • Buy energy-labelled products • Use a water-saving shower
• Use a washing line rather than a tumble drier • Turn off the lights in rooms you are not using, and switch off electrical equipment that is not in use • Insulate your house • Recycle your rubbish • Plant a tree, or several • Buy green electricity • Buy locally produced food • Cycle or use public transport whenever possible • Start a car-sharing club – or join one • Check the tyre pressure on your car; with the correct tyre pressure you use less fuel • If you are going to buy a car, choose an environmentally friendly model.

Small contributions can lead to major changes, if enough people make them.

Together, we are creating technology for a better society



<http://www.sintef.com>

Reidar Bye

Executive Vice President, Operations

SINTEF

Research creates value

SINTEF Group Vice President Reidar Bye is very engaged in the role of research in society. On his desk lies a bundle of reports from the EU, the USA and Norway. All the studies confirm that research pays off for individual companies – and even more for society as a whole. This indicates that both public- and private-sector investment in research is vital.

"Research is good business for industry and society. The return on money invested in research is high," says Bye.

When the 39-year-old came to the research group as finance director in 2005, he already had many years of Norwegian and international industrial experience behind him, not least as a director of one of Norske Skog's factories. This has aroused a lively interest in industrial development, and a belief that interactions between universities, research institutions, industry and the authorities are of great importance.

"SINTEF plays a major role in the Norwegian innovation system. In Norway, we have developed a system in which research and industry cooperate closely. We can see the results of this cooperation in major industrial projects such as Ormen Lange and Snøhvit, but also in many small and medium-sized companies. SINTEF exists for the good of society and of our customers. Every day, we try to realise our vision of "Technology for a better society".

The Vice President emphasises that the research group depends on making money to carry out what he describes as a social task.

"There are no owners who take a dividend out of SINTEF. Everything that we earn goes back into

research. We invest in laboratories and research equipment in order to implement our strategic efforts and no less important, to develop our own staff."

Bye offers some figures from Statistics Norway, which show that 73 percent of Norway's national capital consists of human resources; almost seven times as much as our oil and gas.

"In SINTEF, this is even more true. We have a staff of around 2000, who can point to leading international expertise in a wide range of subjects. These people are our most important capital," says Bye.

The following pages present SINTEF's economic situation as it was in 2006. They also provide an overview of where our income comes from, and how it is invested in new knowledge and new scientific equipment.

2006 was a good year for SINTEF, with a good operating result in several of our business areas. Moreover, the sale of shares in our company Powel ASA and of shareholdings in a portfolio of eight spin-off companies have had a positive effect on our accounts. Bye regards this as another aspect of SINTEF's social obligations.

"There is a clear political expectation that society's investment in research should lead to innovation. SINTEF contributes to this process by developing companies out of the ideas that emerge from our research groups. The fact that professional investors buy into such spin-offs is a sign that we are doing the right thing. The profits from sales of this sort enable us to develop yet more ideas. All of which are of benefit to society."

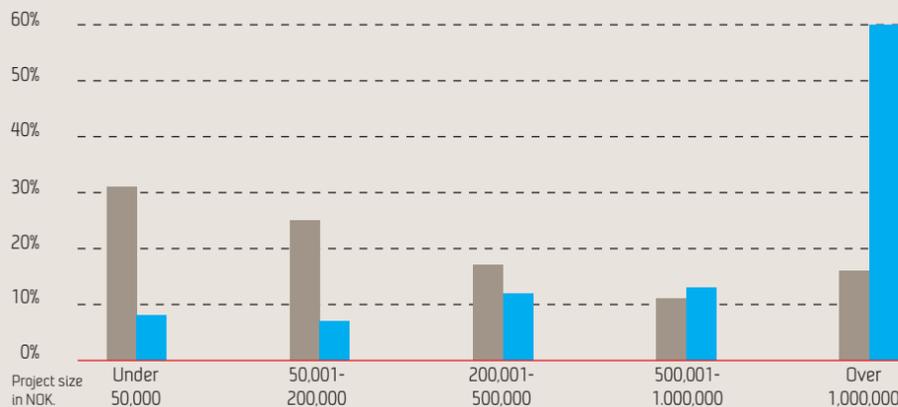
Accounts

Key financial figures for the SINTEF Group

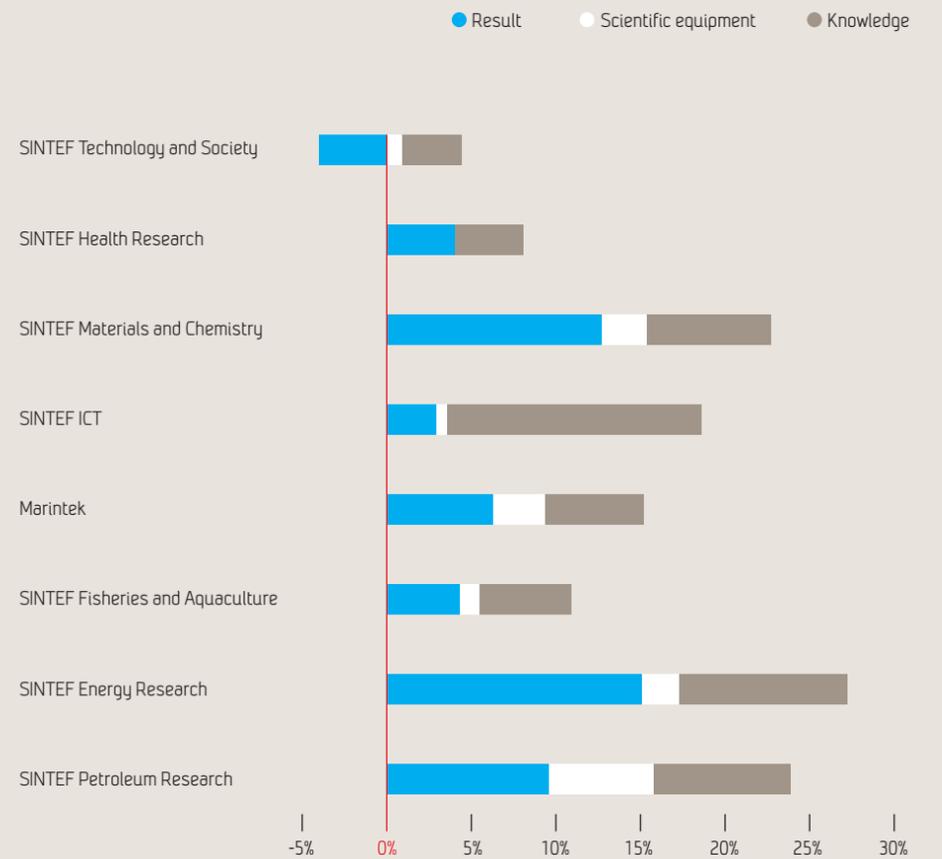
MNOK	2002	2003	2004	2005	2006
Income statement					
Gross operating revenue	1 618	1 690	1 692	1 785	1 959
Net operating revenue	1 271	1 316	1 332	1 448	1 566
Operating result	-25	24	-30	24	35
Annual result	-19	56	-26	59	92
Balance					
Long-term assets	490	484	463	511	510
Liquid assets	1 030	1 070	1 157	1 181	1 426
Total assets	1 520	1 554	1 620	1 692	1 936
Equity	799	855	838	897	988
Liabilities	721	699	782	795	948
Total equity and liabilities	1 520	1 554	1 620	1 692	1 936
Profitability					
Operating margin %	-2.0	1.8	-2.2	1.7	2.2
Total profitability %	0.3	4.0	-0.7	4.2	5.2
Return on equity %	-2.3	6.8	-3.1	6.9	9.8
Liquidity					
Cash flow from operations	-19	54	32	-17	141
Degree of liquidity	1.5	1.8	1.6	1.6	1.6
Solidity					
Equity %	53	55	52	53	51
Operating working capital	412	369	353	322	348

Projects in the SINTEF Group 2006 (Size of project and share of operating revenue)

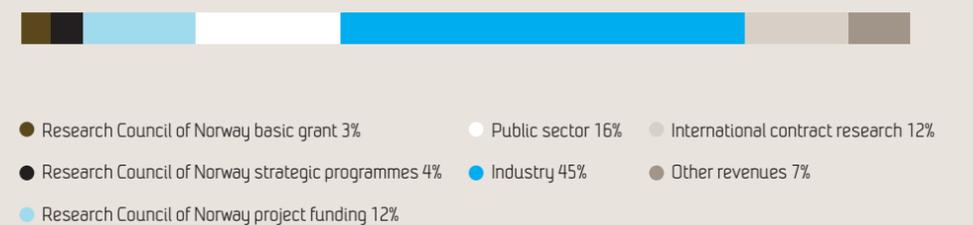
● Proportion of projects ● Share of total operating revenue Total number of projects completed in 2006: 6060



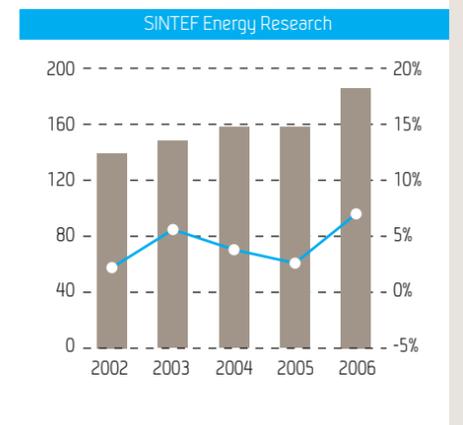
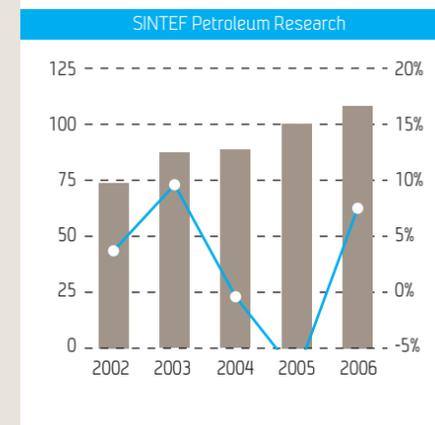
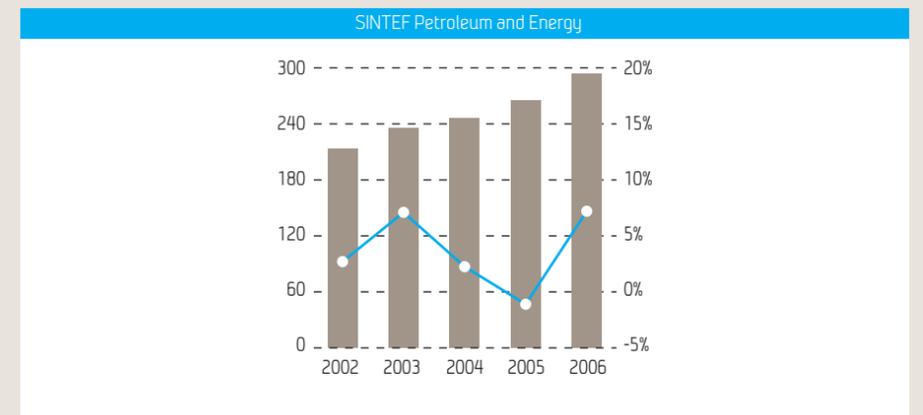
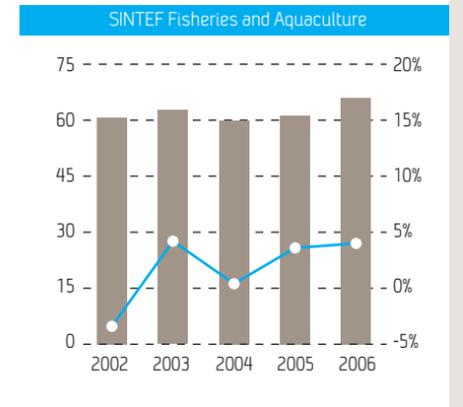
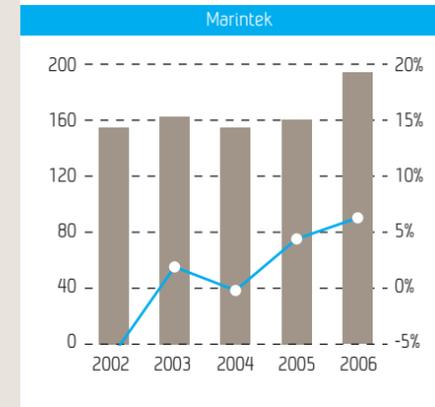
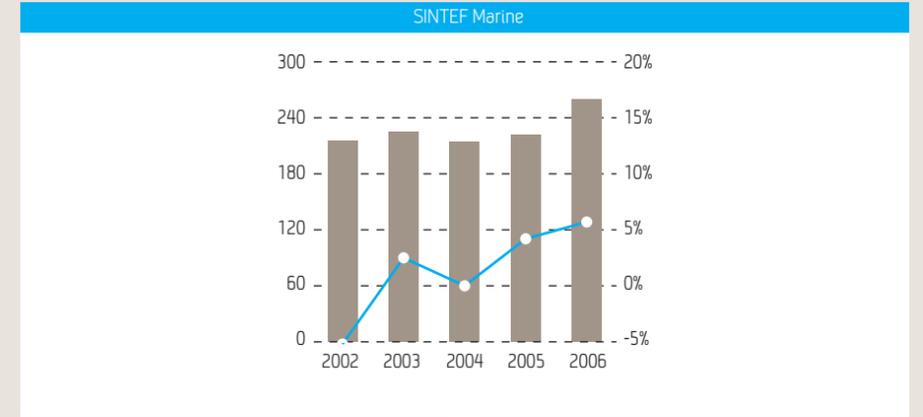
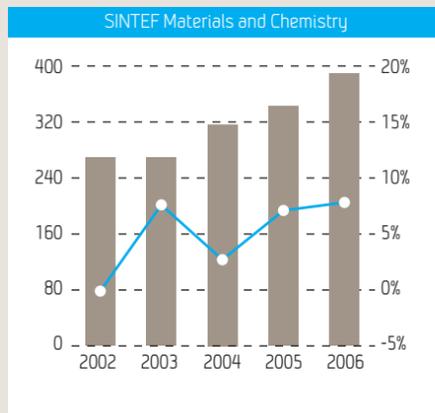
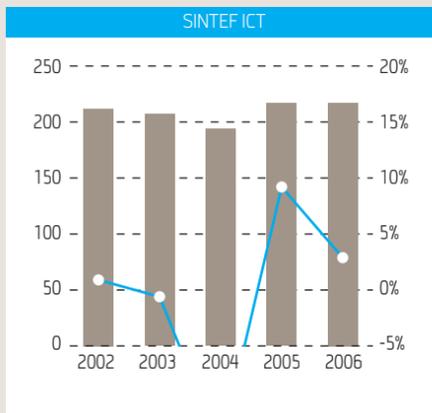
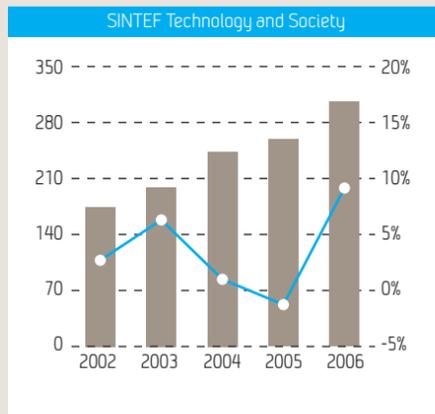
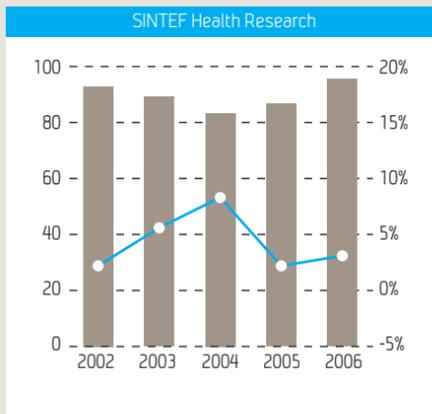
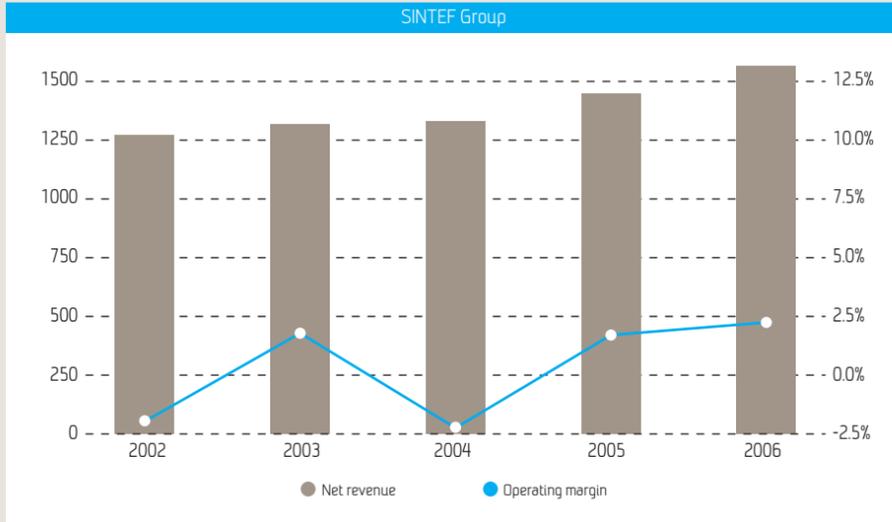
Investments in knowledge and scientific equipment, and result as percentage of net operating revenue 2006



Gross operating revenue of SINTEF Group 2006



Trend in net operating revenue (MNDK) and net operating margin (%)



Educational background of academic personnel employed by SINTEF Foundation

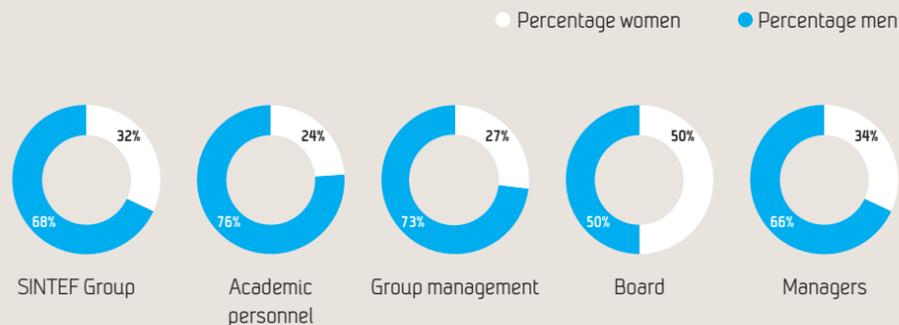


- 66% M.Sc. (Eng.), M.Sc. (architecture), M.Sc.
- 12% Cand.scient.
- 9% Cand.polit.
- 13% Other degrees*

*Other degrees:

Other education	5%
M.Sc.	3%
Dip.Eng./B.Sc.	3%
M.Sc. (Econ.)/MBA	1%
M.Sc. (Psychol.)	1%

Equal opportunities in the SINTEF Group in 2006



When vacant positions are advertised in areas in which women are under-represented, women are encouraged to apply. SINTEF performs systematic work environment surveys throughout the Group in the course of which gender differences are identified. The results of the study in 2006 revealed no significant differences that can be related to gender.

Publication and dissemination of the Group's contributions to knowledge



- Academic journals (498)
- Academic articles and conferences (227)
- Academic lectures and posters (984)
- Reports (1479)
- Popular science and lectures (434)
- Textbooks (2)

Total number of researcher years in the SINTEF Group as of December 31, 2006: 1139

Income statement

Figures in NOK thousand

SINTEF Group			SINTEF Foundation	
2005	2006	Notes	2006	2005
OPERATING INCOME AND EXPENSES				
1 350 516	1 483 936		748 108	768 089
325 838	350 153		231 965	241 554
53 200	68 342		40 600	33 000
55 687	56 977		83 824	72 006
1 785 242	1 959 409	4	1 104 498	1 114 650
337 127	393 734		258 955	261 016
1 448 114	1 565 675		845 542	853 633
1 052 601	1 133 452	6	614 747	625 400
53 873	61 412	8	34 089	29 454
317 278	334 002	8	182 331	180 644
1 423 753	1 530 576		831 166	835 499
24 362	35 099		14 376	18 135
FINANCIAL INCOME AND EXPENSES				
11 158	9 422		6 880	3 892
33 959	49 863		12 801	20 064
658	1 459		370	245
8 063	5 347		1 502	1 477
36 396	52 479	3	17 809	22 234
60 759	87 578		32 185	40 368
		9	40 355	8 056
60 759	87 578		72 540	48 424
1 305	-4 589	19		
59 455	92 167		72 540	48 424
11 031	19 627			
48 424	72 540		72 540	48 424
Dispositions:				
			40 355	8 056
			32 185	40 368
Total dispositions			72 540	48 424

Balance sheet as of 31 December

Figures in NOK thousand

SINTEF Group			SINTEF Foundation		
2005	2006	Notes	2006	2005	
ASSETS					
Long-term assets					
1 710		8			Concessions patents, licences, etc.
1 337	8 506	19			Deferred tax advantage
5 491	4 023	8			Goodwill
8 538	12 529				Intangible assets
360 460	344 248	8	309 251	322 811	Real estate, buildings and other fixed assets
339		8			Buildings under construction
54 538	71 278	8,14	25 290	18 470	Scientific equipment
21 340	20 054	8	11 123	12 383	Other equipment, fixtures, etc.
436 677	435 580		345 665	353 664	Long-term operating assets
	1 870	9,10	305 887	258 590	Investments in subsidiaries
317		9			Investments in associated companies
31 335	33 280	10	22	50	Shares in other companies
		11	92 721	76 845	Consolidated long-term receivables
30 357	22 024	7		7 391	Pension funds
4 379	4 908	11	2 130	2 310	Other long-term receivables
66 388	62 081		400 759	345 186	Financial long-term assets
511 603	510 190		746 424	698 850	Total long-term assets
Liquid assets					
	2 878		1 506	1 385	Inventory of finished goods
110 013	143 649	5	93 763	64 911	Work in progress
111 887	146 527		95 269	66 296	Goods
439 126	495 151		246 532	220 529	Accounts receivable
			17 805	23 170	Consolidated current receivables
41 971	91 391		29 056	19 027	Other current receivables
481 097	586 542		293 393	262 726	Receivables
53 839	14 810	10			Shares
621					Loans portfolio companies
266 337	270 533	12	119 214	112 915	Bonds and other securities
320 797	285 343		119 214	112 915	Investments
266 943	407 531	15	169 877	159 019	Cash, bank deposits
266 943	407 531		169 877	159 019	Cash, bank deposits
1 180 724	1 425 943		677 752	600 956	Total liquid assets
1 692 326	1 936 133		1 424 176	1 299 805	TOTAL ASSETS

Balance sheet as of 31 December

Figures in NOK thousand

SINTEF Group			SINTEF Foundation		
2005	2006	Notes	2006	2005	
EQUITY AND LIABILITIES					
Equity					
62 300	62 300	17	62 300	62 300	Foundation's equity
62 300	62 300		62 300	62 300	Paid-up equity
721 472	793 947	17	260 778	220 481	Reserve for valuation variances
		17	533 176	500 991	Other equity
721 472	793 947		793 954	721 472	Total earned equity
113 228	131 692	17			Minority interests
897 000	987 939	17	856 254	783 772	Total equity
Liabilities					
23 387	60 151	7	32 621		Pension liabilities
23 387	60 151		32 621		Long-term liabilities
2 695	4 220	14			Mortgages
11 010	4 654	14	2 508	11 010	Other long-term liabilities
13 705	8 874		2 508	11 010	Other long-term liabilities
114 690	99 551		57 068	77 354	Accounts payable
948	3 306				Credit line
88		19			Tax due
145 438	158 090		90 955	79 074	VAT, tax deductions, social security
308 992	363 013		260 567	218 667	Advance payments from customers
			6 226	4 341	Consolidated current liabilities
260	1 087				Proposed dividend
187 819	254 122	18	117 977	125 588	Other current liabilities
758 234	879 169		532 794	505 024	Current liabilities
795 325	948 194		567 923	516 034	Total liabilities
1 692 326	1 936 133		1 424 176	1 299 805	TOTAL EQUITY AND LIABILITIES

Trondheim, March 28, 2007

 Kathrine Skretting Vice Chairman	 Jan Erik Korssj�en Chairman	 Elin Grimstad
 Elisabeth Wille	 Raghild Wahl	 Frode R�mo
 Jon Kleppe	 Terje J. K. Andersen	 Unni M. Steinsmo President - CEO

Cash flow analysis

Figures in NOK thousand

SINTEF Group			SINTEF Foundation	
2005	2006		2006	2005
Cash flow from operations				
60 757	87 578	Result before tax	72 540	48 424
		Percentage of profit from subsidiaries/associated companies	-40 355	-8 056
53 873	61 412	Ordinary depreciations/write-downs	34 089	29 454
140	-356	Profit (-)/loss(+) on sales of fixed assets	-498	140
-8 217	-28 096	Profit (-)/loss(+) on sales of shares in fixed assets		-13 988
2 305	35 454	Change in investments (current assets)	-6 299	15 426
-11 130	-33 636	Changes in work in progress	-28 852	-3 847
221	-1 004	Change in stock holdings	-121	343
-43 669	-56 025	Changes in accounts receivable	-26 003	1 060
-5 784	-15 139	Changes in accounts payable	-20 286	-10 415
	1 710	Depreciation of patents		
	-246	Tax paid		
	-273	Difference between deferred tax advantage as entered in Income Statement and in Balance		
-31 611	45 097	Changes in pension obligations	40 012	-28 172
47 298	85 078	Changes in other items in balance sheet	27 697	13 329
63 664	179 405	Net cash flow from operations (A)	51 923	43 698
Cash flow from investment activities				
5 888		Grants for purchase of long-term operating assets		5 888
-59 444	-63 922	Purchases of long-term operating assets	-28 142	-25 050
-38 009	-12 819	Investments in financial assets	-7 022	-120
4 033	5 431	Sales of long-term operating assets	2 550	420
20 895	39 195	Sales of other financial assets	50	14 988
-317	-1 553	Investments in associated companies		
-66 954	-33 668	Net cash flow from investment activities (B)	-32 564	-3 874
Cash flow from investment activities				
-14 076	-4 831	Liquidation of long-term debt	-8 502	-11 692
-100	-260	Dividends paid		
62	-58	Changes charged directly to equity capital		
-14 114	-5 149	Net cash flow from financial activities (C)	-8 502	-11 692
-17 404	140 588	Net change in cash holdings (A+B+C)	10 858	28 132
284 347	266 943	Cash balance as of 1 January	159 019	130 887
266 943	407 531	Cash balance as of 31 December	169 877	159 019

1. Accounting principles

General The annual accounts have been drawn up in accordance with the Norwegian Accounting Act of July 17, 1998, and are based on Norwegian accounting standards and guidelines for good accounting practice.

Principles of consolidation The consolidated accounts indicate the overall economic result and financial position when the parent company SINTEF and its shareholdings in other companies are presented as a financial unit. The consolidated accounts include all companies in which SINTEF owns more than 50% of the share capital or in which it has a decisive influence. Subsidiary companies which are of no significance for the assessment of the position and result of the Group are not included in the consolidated accounts.

Besides the SINTEF Foundation, the consolidated accounts include:

SINTEF Petroleum Research
SINTEF Energy Research
SINTEF Fisheries and Aquaculture
Norwegian Marine Technology Research Institute (Concern)
SINTEF Building Research AS
SINTEF Holding AS (Concern)
SINTEF Polska SP.Z.O.O.

Please see also note 9 concerning subsidiaries.

All significant inter-company transactions, debts and unrealised internal earnings have been eliminated. The minority interests' share of the result forms part of the Group's result and the minority interests' share of equity forms part of the Group's equity.

Share in SINTEF Holding's subsidiaries have been eliminated from the consolidated accounts in accordance with the buyout method, which means that the bought-out company's assets and debts are evaluated at their true value on the date of purchase, and any price in excess of this is classified as goodwill. Where partly owned subsidiaries are concerned, only SINTEF Holding's share of the goodwill is included in the balance sheet.

Principles employed in entering revenue Project income is entered on a current basis, i.e. as a percentage of the work completed, such that the completed proportion of the earnings expected from a project is treated as income. The degree of completion is based on what has actually been produced.

Where projects are expected to result in a loss, the entire loss is entered as a cost item.

Public-sector support in the form of research council funding, etc. is entered in accordance with basic principles for entering income and expenses, i.e. that funding is entered at the same time as the income it is intended to generate or the cost that it is intended to reduce. Funding to which conditions are attached are not entered as income until it is probable that the conditions have been, or will be, met.

Investments and support items are entered net. Investment support is deducted from the historical cost of the investment item. Licence revenue is entered pro rata for the period of the licence.

Classification Current assets are items related to project activity or debts due to be repaid within one year, as well as other assets not intended for long-term ownership or use by the company. Other assets are long-term assets. The distinction between short-term and long-term debts is drawn at a due date of one year.

Shares in subsidiaries and other shareholdings of strategic or "non-financial" character are classified as long-term assets. Other shares are classified as current assets.

Estimates of value of assets Current assets are valued at historical cost or real value, whichever is lower. Long-term assets are valued at historical cost. If the real value of long-term assets is lower than their book value, and the fall in value is not expected to be temporary, their value is written down to their real value.

Shares in subsidiary companies Investments in consolidated associated companies are entered in accordance with the equity method in the company accounts, which means that the investment is valued as the parent company's share of the equity capital of the subsidiary, and the result of the share is entered as revenue or cost.

Other long-term shares and stocks Long-term shares in companies in which SINTEF does not have a significant influence are balanced at historical cost. Investments are written down to their real value if their fall in value is not temporary. Dividends received and other payments from company surpluses are entered as "Other financial income".

Shares in other companies (current shares) Shares that form part of the business portfolio are valued at their real value on balancing day. Other current shares are valued at mean historical cost or real value on balancing day, whichever is lower.

Foreign currency Foreign-currency items are valued at the exchange rate on balancing day. Incoming and outgoing foreign exchange rate risks are reduced by means of futures contracts directly related to contracts. Unsecured foreign currency payments received are used for current expenses incurred in foreign currencies.

Receivables Accounts receivable and other receivables are valued at their nominal value, with deductions for anticipated losses. Provisions for losses are made on the basis of an individual evaluation of the specific receivable involved.

Work in progress This item includes work done but not invoiced. Accrued hours are valued at invoiceable rates and relative to the percentage of the project actually completed, with deductions for anticipated losses.

Intangible assets The costs of intangible assets, including research and development, are entered as costs in their entirety.

Long-term operating assets Operating assets costing more than NOK 15,000 and with an anticipated economic lifetime of three years or more, are activated and depreciated on purchase. Operating assets are depreciated linearly at the following rates: scientific equipment, office equipment, furniture and vehicles: 33%; buildings: 2 - 5%

Tax The SINTEF Foundation and its subsidiaries SINTEF Energy Research AS, SINTEF Fisheries and Aquaculture AS, SINTEF Petroleum Research AS and MARINTEK lost their case in Trondheim District Court against Sør-Trøndelag County Tax Office, concerning due since 2001. On January 5, 2007, the Foundation and its four subsidiaries appealed the judgement to Frostating Appeals Court, where the case is due to be heard over a period of two weeks from September 19, 2007.

This case is of great importance as a matter of principle, and we still believe that SINTEF's point of view will emerge victorious. There is considerable political support for our position, and a working group from the Ministries of Finance, Knowledge and Industry has been appointed to look into the problem. SINTEF's tax case is much more than a technical taxation question; it seriously affects Norwegian research policy and the role of the research institutes in this country's innovation system.

The capital taxes claimed from the SINTEF Foundation for 2001 – 2005, which total MNOK 20.5, have been paid as they fell due, but have been entered in the accounts as receivables under the item "Other short-term debts". As far as the accounts are concerned, loss of the case will mean that the capital taxes already paid are entered as a cost. Entering the deferred tax advantage will increase both assets and equity capital. On the basis of the relevant figure on January 1, 2006, the deferred tax advantage could come to around MNOK 297. Loss of the case will mean an estimated tax cost of about MNOK 30 in 2006. Of this amount, the capital tax payable will be about MNOK 4, while the remainder is changes in deferred tax.

Paid-in income tax in the consolidated accounts consists wholly of tax in SINTEF Holding Group.

Pensions The SINTEF Group and all its consolidated companies are legally obliged to provide a public-sector service pension, and they have set up schemes that meet the requirements involved. One of SINTEF Holding's subsidiary companies has a group agreement concerning a contributory pension. The annual costs of pensions are equivalent to paid-in contributions.

Pension costs are entered in the accounts in accordance with the provisions of the Norwegian Standard for Pension Cost Accounting, NRS6. Net pension costs consist of the present value of pensions earned in the course of the year plus the cost of interest on pension obligations, less the anticipated yield of the pension funds, and corrected for the distributed effects of changes in the pension plan, estimates and deviations. Net pension costs are entered under "Salaries and Social Costs".

The Norwegian Accounting Standard states that a company's pension scheme is to be treated as a compensation plan, in which future pension payments are based on the number of years of earnings and the salary level at age of retirement.

Pension funds are estimated at the end of each accounting year. The estimated value is adjusted annually in accordance with the statement provided by the life-insurance company on the basis of the transferable value of the pension funds.

Measurements of accumulated pension liabilities utilise estimated liability at the end of the accounting year. This estimated value is adjusted annually in accordance with the statement provided by the insurance company regarding accumulated pension liability. Actuarial estimates are made every year by the insurance company on the basis of information provided by SINTEF.

Differences between estimated and actual values that are due to changes in economic or actuarial assumptions are regarded as changes in accounting estimates. The Accounting Standard allows a special method of dealing with such differences in that differences of up to 10% of the larger of pension liability or pension funds may be excluded from the basis for calculating the result. Differences above the 10% limit must be entered in the result over the remaining earnings period. Differences due to changes in the pension plan are distributed systematically over the average remaining earnings period.

In consequence of the fall in long-term interest rates, the discounting rate and interest on anticipated pension fund yield has been reduced by 0.5 percent in comparison with 2005. This has led to an increase in our pension liabilities and pension costs for the year.

Agreed pension plans (the AFP scheme) are covered by the Standard for Pension Cost Accounting.

The SINTEF Group has a collective pension plan with an insurance company for all its employees. Our liability covers 1008 SINTEF employees and 250 pensioners. The pensions of four former employees are also paid as part of our operating costs. Contributions by employees towards the partial financing of the pension scheme are treated as a reduction in salary costs and do not affect the pension costs of the period.

2. Financial market risks

The SINTEF Group is exposed to changes in exchange rates in that some of its project revenues are in other currencies than the Norwegian krone, largely Euros and USD. In order to reduce the risks involved the Group utilises foreign exchange futures contracts.

The SINTEF Group maintains considerable liquid reserves, which are centrally placed on behalf of the whole Group in accordance with the "Guidelines for Financial Management".

On December 31, 2006, the market value of the portfolio was MNOK 265. The SINTEF Foundation was responsible for 45% of this amount.

Virtually the whole of the portfolio consists of bonds and other securities which as of 31 Dec., 2006 had a duration of 0.8. A one percent change in the rate of interest would have an effect of MNOK 1.4 on the result for the total portfolio. The SINTEF Foundation's share of this risk is MNOK 0.6. The remainder of the portfolio is made up of liquid assets and moderate-risk investments. All investments in foreign funds are insured against exchange-rate fluctuations.

3. Financial items

Figures in NOK thousand

SINTEF Group			SINTEF Foundation	
2005	2006		2006	2005
11 158	9 422	Interest received	6 880	3 892
585	4 494	Profit on exchange transactions	1 221	230
9 847	14 207	Yield from capital placements	6 299	5 846
22 749	29 375	Gains on sales of shares ¹⁾	4 975	13 988
778	1 787	Other financial revenues	305	
45 117	59 285	Total financial revenues	19 681	23 956
658	1 459	Interest costs	370	245
125	122	Interest on late payments	95	121
396	467	Bank costs and fees	342	346
3 574	3 473	Currency exchange losses	882	1 010
3 428	754	Depreciation of financial liquid assets		
540	532	Other financial expenses	186	
8 721	6 806	Total financial expenses	1 872	1 722
36 396	52 479	Sum financial items	17 809	22 234

¹⁾ In 2005 and 2006, SINTEF Energy Research sold shares in Powel ASA at profits of MNOK 8.8 and 9.0 respectively. SINTEF sold its shares in the Medical Technology Research Centre in 2005, at a profit of MNOK 13.9, which was entered as financial revenue for SINTEF in 2005. Two subsidiaries of SINTEF Holding Group sold shares in 2006, at a total gain of MNOK 20.4.

4. Gross operating revenues for the SINTEF Group

Figures in NOK thousand

By division	2006	2005	SINTEF Foundation		
			Geographical distribution	2006	2005
SINTEF Health Research	122 010	110 293	Norway	992 520	946 143
SINTEF ICT	250 043	257 001	EU	58 499	78 558
SINTEF Materials and Chemistry	423 724	371 512	Rest of the world	53 479	89 950
SINTEF Technology and Society	219 381	305 386	Total	1 104 498	1 114 650
Service exchanges within the Group	89 340	70 458			
Total SINTEF Foundation	1 104 498	1 114 650			
SINTEF Building and Infrastructure	98 843				
Marintek	232 113	199 282			
SINTEF Fisheries and Aquaculture	87 945	83 279			
Sum SINTEF Marine	320 058	282 561			
SINTEF Petroleum Research	143 955	130 266			
SINTEF Energy Research	245 621	211 020			
Sum SINTEF Petroleum and Energy	389 576	341 286			
SINTEF Holding	155 214	145 690			
Eliminated internal turnover	-108 780	98 944			
Sum SINTEF Group	1 959 409	1 785 242	Total	1 959 409	1 785 242

5. Work in progress

In addition to individual evaluations, the companies' share of work in progress has been written down by an average of 3%.

6. Salary costs, number of employees, fees, loans to employees, etc.

Figures in NOK thousand

SINTEF Group			SINTEF Foundation	
2005	2006	Wages and salaries	2006	2005
794 395	852 778	Salaries	459 176	467 416
126 557	127 774	Employers' national insurance contributions	68 458	77 889
99 753	117 432	Pension costs	70 057	63 298
31 896	35 468	Other benefits	17 055	16 797
1 052 601	1 133 452	Total salary costs	614 747	625 400
1 789	1 663	Years of work * (Numbers of 2005 refer to average number of employees)	900	1 098

SINTEF's group management team is affiliated to the group pension scheme, with a supplementary scheme that means that total payments come to 66% of total salary at the age of 67. The President of SINTEF is also entitled to an early retirement pension of 66% of full salary from the age of 60 to 67. The President has a period of mutual notice of six months in addition to a scheme that entitles her to 12 months post-employment salary if the board should wish to terminate her employment. This will be reduced by any other income received during this period.

The total salary paid to the President in 2006 came to MNOK 1.56. The value of additional taxable emoluments came to a total of MNOK 0.13.

The Board has established guidelines for a bonus scheme for the President and the group management team. Any payments are made by results and are limited to maximum two months' pay. The accounts for 2006 do not include bonus provisions.

Fees paid to the Board of SINTEF in 2006 came to MNOK 0.8. No fees were paid to the Council of SINTEF.

SINTEF Group			SINTEF Foundation	
2005	2006	Fees paid to auditors and cooperating companies	2006	2005
689	1 087	Audit required by law	354	237
525	562	Other certification duties	251	373
393	1 098	Legal assistance, tax case	655	393
819	183	Other non-audit services	171	669
2 427	2 930	Total	1 431	1 672

The law firm Deloitte Advokatfirma DA collaborates with Deloitte AS.

Fees paid to other auditors and collaborating companies in 2006 for auditing and audit-related services came to MNOK 0.13 for the Group. Fees for other services came to MNOK 0.01.

Loans to employees

Total loans to employees of the Group came to MNOK 0.9, of which MNOK 0.5 were within the SINTEF Foundation.

7. Group pensions

Pension costs

Figures in NOK thousand

SINTEF Group			SINTEF Foundation	
2005	2006		2006	2005
70 900	78 788	Present value of pensions earned in the course of the year	41 657	40 917
54 221	55 781	Cost of interest on pension obligations	33 105	33 621
-47 653	-50 323	Yield on pension funds	-28 207	-28 809
22 283	30 235	Gains/losses on estimates entered in accounts	23 502	17 569
14 065	15 860	Interim employee tax paid	9 975	8 925
113 816	130 341	Net costs of pensions after employer tax	80 032	72 223

Pension obligations and funds

Figures in NOK thousand

SINTEF Group	Insured (group)	Other insured	Uninsured (AFP)	Other uninsured	Sum
Accrued pension obligations	1 248 100	11 096	15 695	18 273	1 293 163
Pension funds (at market value)	-934 394	-7 079	-1 166	-942 639	
Non-entered effects of difference from estimates	-312 045	-3 236	5 845	-13 199	-322 636
Effects of changes in plans, not entered in accounts	6 991		-4 707		2 284
Accrued employment tax	4 922	110	2 373	551	7 956
Net pension obligations, including:	13 574	890	19 205	4 458	38 127
Underfinanced pension commitments					60 151
Overfinanced pension commitments					22 024

SINTEF	Insured (group)	Other insured	Uninsured (AFP)	Other uninsured	Sum
Accrued pension obligations	772 980	11 096	1 663	16 549	802 287
Pension funds (at market value)	-538 466	-7 079			-545 545
Non-entered effects of difference from estimates	-210 741	-3 236	-1 522	-13 110	-228 610
Effects of changes in plans, not entered in accounts					
Accrued employment tax	3 875	110	20	485	4 490
Net pension obligations	27 648	890	160	3 923	32 621
Underfinanced pension commitments					32 621
Overfinanced pension commitments					

The following parameters have been used in the Group estimates:

Economic assumptions	1)	2)	3)	2006
Discounting rate	4.5%	4.3%	5.0%	4.3 - 5.0%
Anticipated salary adjustments	3.5%	4.5%	3.0%	3.0 - 4.5%
Anticipated pension adjustments	3.4%	2.5%	3.0%	2.5 - 4.3%
Anticipated adjustment of national insurance base rate (G)	3.4%	4.2%	3.0%	2.5 - 3.5%
Anticipated yield on pension funds	5.5%	5.4%	6.0%	5.4 - 6.0%
Actuarial assumptions				
Mortality table utilised				K63/ T84
Disability tariff utilised				K63/ T84
Anticipated outtake frequency AFP	0 - 10%	40%	5%	0 - 50%
Voluntary resignation (all ages)				0 - 15%

1) SINTEF Foundation, SINTEF Petroleum Research, SINTEF Fisheries and Aquaculture

2) SINTEF Energy Research AS (in accordance with new NRS6 recommendations)

3) Marintek

8. Tangible fixed assets – scientific equipment, fixtures, fittings and buildings

Figures in NOK thousand

SINTEF Group 2006	Buildings	Scientific equipment	Office equipment, inventory and vehicles	Sum
Historical cost as of 1 January	759 416	412 382	129 876	1 301 674
Acquisitions in 2006	3 903	50 352	9 667	63 922
Disposals at historical cost	-2 052	-3 487	-146	-5 685
Historical cost as of 31 December	761 267	459 247	139 397	1 359 911
Total ordinary depreciation	417 017	387 970	119 343	924 330
Total depreciation				
Book value as of 31 December	344 248	71 278	20 054	435 580
Annual ordinary depreciation	18 061	31 703	10 528	60 292
Economic lifetime	10-50 years	3 years	3 years	
Depreciation plan	Linear	Linear	Linear	
Annual rental costs of operating assets not entered in Balance Sheet	43 244			43 244
Purchases in 2006 <15 000		6 104	4 719	10 823

SINTEF Group 2006	Concessions, patents	Goodwill	Total
Historical cost as of 1 January	1 800	8 277	10 077
Acquisitions in 2006			
Disposals at historical cost		-348	-348
Historical cost as of 31 December	1 800	7 929	9 729
Total ordinary depreciation	90	3 906	3 996
Total depreciation	1 710		1 710
Book value as of 31 December		4 023	4 023
Annual ordinary depreciation		1 120	1 120
Annual depreciation	1 710		1 710
Economic lifetime	20 years	5-10 years	
Depreciation plan	Linear	Linear	

Concessions and patents are valued at NOK 0 as of 31 December. Goodwill refers to SINTEF MRB AS, and is depreciated linearly over 10 years on the basis of expected cash flow.

SINTEF Foundation 2006	Buildings	Scientific equipment	Office equipment, inventory and vehicles	Sum
Historical cost as of 1 January	683 751	226 131	108 212	1 018 094
Acquisitions in 2006	2 962	19 286	5 894	28 142
Disposals at historical cost	-2 052			-2 052
Historical cost as of 31 December	684 660	245 417	114 106	1 044 184
Total ordinary depreciation	375 409	220 127	102 983	698 519
Book value as of 31 December	309 251	25 290	11 123	345 665
Annual ordinary depreciation	14 469	12 466	7 154	34 089
Economic lifetime	10-50 years	3 years	3 years	
Depreciation plan	Linear	Linear	Linear	
Annual rental costs of operating assets not entered in Balance Sheet	24 534			24 534
Purchases in 2006 <15,000		4 240	3 499	7 739

In 2006, SINTEF leased 21 938 m² from NTNU. SINTEF Energy Research also leased 3 933 m² and MARINTEK leased 23 332 m² from NTNU. NTNU leased 14 937 m² from SINTEF as well as 236 m² in SINTEF Energy Research's building.

9. Subsidiaries

SINTEF's subsidiaries

Company	Date of acquisition	Registered office	Voting and ownership share
Subsidiaries			
SINTEF Petroleum Research	January 1, 1985	Trondheim	100%
SINTEF Holding	January 1, 1988	Trondheim	100%
SINTEF Polska SP.Z.O.O.	July 1, 2005	Warsaw	100%
SINTEF Building and Infrastructure	December 1, 2005	Oslo	100%
SINTEF Fisheries and Aquaculture	January 1, 1999	Trondheim	97%
SINTEF Energy Research	December 16, 1985	Trondheim	61%
Marintek	December 19, 1984	Trondheim	56%

Shareholdings and voting rights are identical.

The companies' accounting procedures follow the equity method; see the following table.

Figures in NOK thousand

	MARINTEK Group	SINTEF Fisheries and Aquaculture	SINTEF Petroleum Research	SINTEF Energy Research	SINTEF Building and Infrastructure	SINTEF Polska	SINTEF Holding	Sum
Historical cost =equity capital in Balance Sheet at time of purchase	6 500	11 219	9 000	4 600	120		6 670	38 109
Balance as of Jan 1, 06	57 950	11 733	85 158	89 185	120		14 442	258 590
Share of result for 2006	6 871	2 730	10 355	17 149	1 829	-3 141	4 563	40 355
Paid-up share capital							7 000	7 000
Items entered directly against equity capital	-99	47			-6			-58
Balance as of Dec 31, 06	64 723	14 509	95 512	106 335	1 943	-3 141	26 005	305 887

The share of the annual result of MNOK 40,355 less deductions for items transferred directly to equity, MNOK 0,058, is transferred to the reserve for valuation variances.

SINTEF Holding's subsidiaries/associated companies

Company	Date of acquisition	Registered office	Voting and ownership share
Subsidiaries			
SINTEF NBL (Norwegian Fire Research Laboratory)	December 31, 2000	Trondheim	100%
Sinvent AS	November 24, 2004	Trondheim	100%
Sinvent Venture II	August 21, 2006	Trondheim	100%
Unimed Innovation	January 23, 2006	Trondheim	100%
SINTEF MRB AS	November 1, 2004	Ålesund	100%
SINTEF Venture II	August 21, 2006	Trondheim	64%
SINTEF Venture III	November 28, 2006	Trondheim	64%
Molab as	January 1, 1990	Mo i Rana	60%
RTIM – Raufoss Technology & Industrial Management AS	February 9, 2004	Raufoss	50%

Shareholdings and voting rights are identical.

The companies' accounting procedures follow the equity capital method; see table next page.

Figures in NOK thousand	Molab	RTIM	SINTEF NBL	SINTEF MRB	Sinvent Group	SINTEF Venture II	Unimed Innovation	Sum
Historical cost	1 000	6 991	1 300	7 600	10 000	16 000	120	43 011
EC in Balance Sheet at time of purchase	1 500	4 078	1 300	2 246	10 000	16 000	120	35 244
Goodwill		2 923		5 354				8 277
Balance as of Jan 1, 2006	12 022	3 054	2 221	4 160	16 338			37 795
Cost of acquisition of share issue				4 000	17 600	16 000	120	37 720
Share of result for 2006	1 064	1 705	354	-295	706	4 926	3	8 463
Depreciation of goodwill		-585		-536				-1 121
Disposal of subsidiaries					-2 172			-2 172
Dividends	-510					-4 800		-5 310
Balance as of Dec 31, 2006	12 576	4 174	2 575	7 329	32 472	16 126	123	75 375

SINTEF Holding and its subsidiaries are wholly consolidated in the SINTEF Group.

10. The SINTEF Group's shares and holdings in other companies

Figures in NOK thousand

SINTEF Group	Owner in SINTEF	Holding	Book value
Long-term assets			
ConMotion AS	SINTEF Fisheries and Aquaculture	100.0%	1 350
SINTEF Venture III AS	SINTEF Holding	100.0%	520
Sum subsidiaries			1 870
MoTest AS	Molab	49%	201
MonAqua AS	SINTEF Fisheries and Aquaculture	33%	317
Sinvent Venture AS	SINTEF Holding	25%	4 942
SINTEF Venture AS	SINTEF Holding	25%	1 997
SolSilc AS	SINTEF	20%	22
MedTech AS	SINTEF Holding	19%	19
ResLab AS	SINTEF Petroleum Research	10%	19 199
Design ACE AS	SINTEF Fisheries and Aquaculture	4.9%	130
Leiv Eiriksson AS	SINTEF Holding	3.6%	960
Mison AS	SINTEF Holding	2.6%	200
TraceTracker Innovation AS	SINTEF Fisheries and Aquaculture	2.4%	1 999
Norsk Jern Eiendom AS	Molab	2.0%	3 000
Powel ASA	SINTEF Energy Research	1.3%	244
Oil Trøndersk Mat og Drikke AS	SINTEF Fisheries and Aquaculture	1.0%	20
Forskningsparken AS	SINTEF Holding	0.9%	30
Sum other shares			33 280
Total long-term assets			35 150

SINTEF Group	Owner in SINTEF	Holding	Book value
Liquid assets			
CarriTech AS	SINTEF Holding	100%	27
Spider Solution AS	SINTEF Holding	93%	2 956
Ambiesense AS	SINTEF Holding	37%	50
Link _{net} AS	SINTEF Holding	34%	37
CFD Norway AS	Marintek	31%	293
RFID Innovasjonssenter AS	SINTEF Holding	28%	110
Offshore Simulator Centre	Marintek	25%	910
Lodic AS	Marintek	25%	325
Alcon Gruppen AS	SINTEF Holding	23%	980
Numerical Objects AS	SINTEF Holding	22%	1
Viva AS	SINTEF Holding	20%	50
LogIT Systems AS	Marintek	15%	3 615
Sårkorninvest Midt-Norge AS	SINTEF Holding	12%	7 508
Trøndelag Forskning og Utvikling AS	SINTEF Holding	10%	500
Simula Research Lab. AS	SINTEF Holding	10%	150
DAT AS	SINTEF Holding	4.9%	575
Cybernetica AS	SINTEF Holding	4.4%	98
ProVenture Seed AS	SINTEF Holding	3.0%	134
Other minor shareholdings			3 602
General adjustment of value of share portfolio			-7 112
Total liquid assets			14 810

11. Receivables with due

Figures in NOK thousand

SINTEF Group		SINTEF Foundation		
2005	2006		2006	2005
		Long-term receivables from companies within the Group	92 721	76 845
4 379	4 908	Other long-term receivables	2 130	2 310
4 379	4 908		94 851	79 155

12. Bonds and other securities

Figures in NOK thousand

SINTEF Group				SINTEF Foundation's share (45%)
Portfolio distributed as follows:	Currency	Historical cost	Book value = market value	
Bank deposits and derivatives	NOK	18 497	18 497	8 309
Interest bearing securities				
State/state guaranteed and municipalities	NOK	26 202	26 317	11 823
Commercial and saving banks	NOK	46 051	45 904	20 622
Finance and credit companies	NOK	9 196	9 086	4 082
Interest-bearing funds	NOK	85 839	86 636	38 919
Total interest-bearing securities		167 288	167 943	75 446
Other placements				
Indexed bonds	NOK	7 871	9 960	4 474
Scandinavian unit trusts	NOK	3 613	4 759	2 138
Foreign unit trusts	NOK	25 417	29 299	13 162
Foreign combination funds	EUR	13 483	13 819	6 208
Foreign high-yield or hedge funds	EUR	19 299	21 095	9 477
Total other investments		69 683	78 932	35 459
Sum SINTEF Group's total portfolio		255 468	265 372	119 214
Alternative investments/hedge funds	NOK	5 000	5 160	
Total investments for distribution		260 468	270 533	119 214

13. Foreign exchange

SINTEF safeguards its project by means of futures contracts. These are either drawn up as part of each individual contract's conditions of payment, or are included in block contracts that are paid quarterly. In the following table, the line "Income 2007 – 2010" is the sum of signed contracts and block contracts totalling € 8 million, at an exchange rate of NOK 8.42/€. These block contracts are destined for SINTEF efforts vis-à-vis the EU's 7th Framework Programme, which starts in 2007.

Figures in NOK thousand

SINTEF Group					
Currencies	EUR	USD	KWD	Other	Total
Bank deposits	4 255	19 054	2 779	-78	26 011
Customer receivables	10 705	11 106		1 100	22 911
Accounts payable	-9 045	-2 871		-4 106	-16 022
Income 2007 – 2010	143 668	1 994		1 020	146 682
Futures contracts	-158 516	-9 660		2 602	-165 575
Net exposure	-8 933	19 623	2 779	539	14 007

SINTEF Foundation					
Currencies	EUR	USD	KWD	Other	Total
Bank deposits	-9 843	5 260	2 779	244	-1 560
Customer receivables	3 935	8 728		1 100	13 763
Accounts payable	-7 426	-1 057		-3 273	-11 756
Income 2007 – 2010	137 902	1 994		1 020	140 916
Futures contracts	-126 190	-7 302		2 602	-130 890
Net exposure	-1 622	7 623	2 779	1 693	10 473

14. Other long-term debt

Figures in NOK thousand

SINTEF Group	2006	2005
Mortgages	4 220	2 695
Other long-term debts owed to credit institutions	2 508	11 010
Other long-term debt	2 146	
Total long-term debt	8 874	13 705
None of the debt has a due date longer than five years.		
Book value of assets posted as collateral for reported debt:		
Machinery etc.	6 655	5 000
Customer receivables	25 867	8 142
Other debts	4 024	
Sum book value of assets posted as collateral for reported debt	36 546	13 142

15. Mortgages and guarantees, etc.

The SINTEF Group has signed a contract with Fokus Bank regarding a joint current account system. The Foundation and its subsidiaries are jointly responsible vis-à-vis the Bank for each and any commitment that comes within the terms of the agreement. Under the terms of the contract, SINTEF also commits itself to mortgage its VPS account for placing funds from its capital account for the use of its subsidiaries as security for their requirements. The VPS account is mortgaged jointly to the participants. SINTEF agrees to place satisfactory security in the form of fixed property assets for putting funds from the capital account into joint active management.

SINTEF Energy Research AS has a guarantee obligation of MNOK 9.2 in connection with two EU projects.

SINTEF is a party to various legal cases as a result of its normal range of activities. SINTEF considers that any obligations incurred in this connection will not be of significance in proportion to SINTEF's results, liquidity or financial position.

16. Offsets between companies within the Group

Internal transactions within the group amounted to MNOK 111 ex. VAT.

Intra-group receivables and debts are shown as a line on the Balance Sheet.

17. Equity capital

Figures in NOK thousand

SINTEF Group	Paid-up equity	Earned Equity		Total equity
			Other equity incl. minority	
Equity capital as of Jan 1, 06	¹⁾ 62 300		834 700	897 000
Annual result of group			92 167	92 167
Dividend			-340	-340
Items entered directly against EC			-888	-888
Equity capital as of Dec 31, 06	62 300		925 639	987 939

SINTEF Foundation	Paid-up equity	Earned Equity		Total equity
		Valuation variances	Other equity	
Equity capital as of Jan 1, 06	¹⁾ 62 300	220 481	500 991	783 772
Annual result of Foundation		40 355	32 185	72 540
Items entered directly against EC		-58		-58
Equity capital as of Dec 31, 06	62 300	260 778	533 176	856 254

¹⁾ Basic capital was established in a modification of the Statutes, dated October 2, 2006.

18. Other current liabilities

The item "Other current liabilities" in the account for the SINTEF Group includes provisions for accrued vacations, holiday pay and overtime, provisions for early retirement, bonuses and restructuring, investments in IT systems, obligations regarding invoices entered but unpaid and transiting EU funds.

19. Taxes

All taxes apply to SINTEF Holding Group, see note 1, and MARINTEK's overseas subsidiaries.

Figures in NOK thousand

SINTEF Group		
Annual tax costs	2006	2005
Tax due	16	298
Changes in deferred tax	-4 605	1 008
Tax cost of ordinary result	-4 589	1 305
Tax payable on Balance Sheet		
Tax on ordinary result payable for the year	0	88
Tax payable on Balance Sheet	0	88

SINTEF Holding Group		
Adjustment from nominal to actual tax rate	2006	2005
Ordinary result before tax and results of subsidiaries	3 134	-2 940
Annual result before tax	3 134	-2 940
Anticipated income tax according to nominal tax rate	878	-823
Tax effect of following items:		
Non-deductible costs	2 070	5 588
Non-taxable income	-9 953	-5 854
Zeroing of deferred tax advantage	1 400	2 603
Change in non-balanced deferred tax advantage	-162	-203
Other items	1 160	-94
Tax costs	-4 605	1 217
Effective tax rate	147%	41%

Specification of the tax effect of temporary differences and losses to be carried forward.

	2006		2005	
	Advantage	Obligation	Advantage	Obligation
SINTEF Holding Group				
Operating assets	1 995		2 010	
Contracts regarding long-term assets		130		92
Receivables	164		103	
Pension commitments	107		281	
Pension funds		603		
Short-term debt			28	
Gains and losses account		1 025		1 282
Unused reimbursements on shareholdings	847		1 310	
Provision for commitments	344			
Loss to be carried forward	8 209		3 145	
Total	11 664	1 759	6 877	1 374
Advantage/obligations on deferred tax	9 906		5 503	
Non-balanced deferred tax advantage	1 400		4 165	
Net advantage/obligations on deferred tax in Balance Sheet	8 506		1 337	

Deferred tax advantage is entered on the basis of future revenue.

Auditor's report

Deloitte.

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To the Board of Directors of SINTEF

AUDITOR'S REPORT 2006

We have audited SINTEF's annual accounts for 2006, which indicate a profit of NOK 72,540,000 for the parent company and of NOK 92,167,000 for the Group. We have also audited the information provided in the Annual Report regarding the accounts, the assumption of continued operation and proposals for allocation of the profits. The annual accounts consist of the Foundation's Accounts and the Consolidated Accounts for the Group. The Accounts for the Foundation comprise the Profit and Loss Account, Balance Sheet, Cash Flow Analysis and notes. The Consolidated Accounts comprise the Profit and Loss Account, Balance Sheet, Cash Flow Analysis and notes. Norwegian legislation and good accounting practice have been employed in drawing up these accounts. The annual accounts and the Annual Report have been drawn up by the Board of the Foundation and the President of SINTEF. Our responsibility is to express our opinion regarding the annual accounts and other matters under the terms of the Auditing Act.

We have conducted our audit in accordance with current Norwegian legislation and good auditing practice, including auditing standards adopted by the Norwegian Institute of Public Accountants, which requires us to plan and implement our audit in such a way as to be able to confirm with certainty that the accounts did not include material errors or omissions. We have checked selected parts of the material on which the accounts are based, evaluated the accounting principles employed and important accounting estimates, and the content and presentation of the annual accounts. To the extent required by generally accepted auditing standards, we have also reviewed the Foundation's assets management and accounting and internal control systems. We believe that our audit provides adequate grounds for the following statements.

In our opinion:

- the annual accounts have been drawn up in accordance with current laws and regulations and present a satisfactory picture of the financial position of the Foundation and the Group on December 31, 2006, as well as of the result and cash flows in the course of the accounting year, in accordance with good accounting practice in Norway.
- SINTEF's management has fulfilled its obligation to ensure that accounting information has been appropriately and clearly registered and documented, in accordance with legal requirements and good accounting practice in Norway.
- the information contained in the Annual Report regarding the annual accounts, the assumption of continued operation and the proposals for allocation of the profits are consistent with the annual accounts and are in accordance with legal requirements and regulations.

Trondheim, March 28, 2007
Deloitte AS



Harald J. Lydersen
State Authorised Public Accountant

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ISBN 978-82-14-03999-6

