



Technology for a better society

2012

Research requires investment



In both scientific and economic terms, 2012 was a good year for SINTEF. This was the eighth successive year in which we have produced an acceptable financial result.

Now and again we are asked whether it is necessary and right that an organisation such as SINTEF should make a healthy profit.

The answer is an unconditional “Yes!” SINTEF is a private, non-commercial research group, which comprises the SINTEF Foundation and four limited research companies. Both the way in which we are organised and our statutes mean that we are independent, and that we do not have owners who enjoy a financial return from our activities. However, this also means that we lack owners capable of injecting new capital. We need to earn money through efficient operation if we are to invest in new knowledge. As far as possible, SINTEF’s profits are invested in new research, in the shape of laboratories and scientific equipment and in the generation

of new knowledge and the development of our own colleagues.

Our good financial results over many years have enabled us to invest in these ways. In the course of the past five years, SINTEF has invested around MNOK 600 in laboratories and scientific equipment and more than MNOK 170 in self-financed knowledge development in fields of strategic importance.

High-quality laboratories are also essential if we are to recruit the best research staff and build up international leading-edge research groups. All this costs a great deal, not only in the form of investments, but also in operating costs. Examples of this are MiNaLab in Oslo and the Multiphase Flow Facility in Trondheim. These are both highly advanced laboratories that are very demanding to operate.

Many of the laboratories that we build and operate are national laboratories of great importance to Norway. They form part of our contribution both to strengthening Norway as a knowledge nation and to improving the competitiveness of Norwegian industry. In close collaboration with the authorities and the maritime industry, we are currently making goal-oriented efforts to develop the maritime laboratories of the future.

Although SINTEF invests as much as its earnings permit, the primary responsibility for financing laboratories and research must remain with the public sector. The authorities need to contribute funds, strategies and priorities. We are facing growing global competition, and every country whose ambition is to be a forward-looking economy is investing heavily in scientific equipment and laboratories.

In 2009, the Norwegian authorities launched a “National Research Infrastructure Effort”, which the Research Council of Norway followed up with a route-map that prioritised public-sector investments. These were important measures and represented vital steps in the right direction. However, the Research Council’s route-map primarily identified a huge gap between needs and financial remedies, the result of decades of underinvestment. To date, only 12 per cent of what research institutions have requested has been financed by the state. This means that many good projects will not be performed, because not enough money is available. To fill this gap, we need a special effort on the part of the public sector.

Unni Steinsmo
President – CEO

Some SINTEF highlights from 2012

- SINTEF scientists help to develop new operating instruments that will permit tumours in moving organs to be removed. The method could mean a new type of treatment without scalpels, lasers or anaesthetics.
- Norwegian leading daily Aftenposten's jury named multiphase technology the most important Norwegian invention since 1980. The technology enables us to transport oil, gas and water in one and the same pipeline, and has contributed to enormous value creation by the Norwegian petroleum sector. Research groups at IFE and SINTEF have played central roles in the development of multiphase technology.
- Instituto SINTEF do Brasil (SINTEF Brazil) gained accreditation from the Brazilian Directorate of Petroleum (ANP): Accreditation is the formal confirmation that SINTEF Brazil is recognised as a supplier of research and development services for the Brazilian petroleum sector.
- A radiation sensor developed by SINTEF ICT played a part in the discovery of the Higgs boson by the particle accelerator at CERN. The finding has been described as a milestone in particle physics.
- Milestone for Ocean Space Centre: The Norwegian Ministry of Finance's external quality assessors concluded that Ocean Space Centre, the proposed knowledge centre for ocean space technology at MARINTEK, will be profitable in social-economic terms. This was a milestone along the route to developing the future centre.
- The European Union's EcoGrid project reaches final round for the sustainable power award: With SINTEF in the coordinator role, the project reached the finale of the Sustania Award, an unofficial "World Championship in Sustainable Energy" run by the Scandinavian think-tank MandagMorgen. The project utilises smart-power grids to create more flexibility for the use of solar and wind power.
- Yet another Research-based Innovation Centre saw the light of day: the Centre for Petroleum Production Facilities (CPPF). The Centre is run from MARINTEK, with contributions from IFE and IRIS, NTNU and the University of Stavanger. The main aims of the Centre are to extend the lifetime of Norwegian oil-fields, increase their accessibility, and reduce the risk of accidents in the offshore sector.
- Project Cold-Wear completed the development of the world's most advanced work wear for fishermen. The suit incorporates a man-overboard alarm, a flotation system that is automatically activated when needed, and self-repairing textiles.
- SINTEF was awarded the 2012 Diversity Prize. The jury justified its award by pointing out that we have managed to create an international milieu that includes highly qualified staff from a large number of cultures who are represented at most levels of the organisation. The award was handed over by Ahmad Ghanazideh, State Secretary in the Ministry of Children, Equality and Social Inclusion.

■ SINTEF helped to develop the first sensor in the world that can identify individual particles in a blood sample, in close collaboration with colleagues from Stanford University and the University of Oslo. The sensor has outpaced existing equipment by raising sensitivity by a factor of one million.

■ A 3D oil-drilling simulator was inaugurated in Stavanger. The simulator was developed for Statoil, and is programmed with experiential data and mathematical models developed by SINTEF. It is already saving the petroleum sector millions of kroner by enabling it to avoid potential accidents and by improving the efficiency of well-drilling.

■ Powerful effort: SINTEF was given the job of developing the next generation of salt power generators, thanks to our wide-ranging expertise in the field of membrane technology.

■ SINTEF Technology and Society helps Ghana to build up a national supply industry for the petroleum sector, capable of supporting the latter's activities on Ghana's continental shelf. Ten local companies are participating in this venture, and most of them have gained customers in the petroleum sector in the course of the project.

■ SINTEF's new analysis of the marine sector has attracted a great deal of attention. The analysis shows that it should be possible to multiply the value creation of this industry by a factor of six by 2050. The prerequisites are political prioritisation and good management of the environmental challenges faced by this sector.

■ SINTEF retains its position vis-à-vis the European Union: we are still by far Norway's leading participant in European Union-financed research projects. By the end of 2012, SINTEF had participated in 188 projects under the European Union's 7th Framework Programme for research and development, and had coordinated 44 of them.



Report of the Board of Directors 2012

SINTEF is a private, non-profit research group, which is organised in the form of a foundation with a number of subsidiary companies. Via first-rate solution-oriented research and knowledge generation, SINTEF creates significant value for its Norwegian and international customers, the public sector and society as a whole.

The main activities of SINTEF are located in Trondheim and Oslo, and its headquarters are in Trondheim. SINTEF operates in several other locations in Norway and abroad via the SINTEF Foundation and its subsidiaries.

SINTEF partners and shares a strategy with NTNU in Trondheim, and collaborates closely with the University of Oslo and other national and international research institutions. These partnerships contribute to the high scientific quality of our work and to our strong international position.

2012 was a good year for SINTEF in both financial and scientific terms. Our operations went well and produced a satisfactory economic result. Good results over a number of years have enabled us to invest in laboratories and scientific equipment, and to undertake self-financed efforts in certain prioritised areas of research. Nevertheless, certain areas are having problems in achieving acceptable financial results over a period of time, and we are making constant efforts to improve this situation.

Technology for a better society

SINTEF's vision is of "Technology for a better society". It is essential for our research to produce results that are put to good use and contribute to concrete improvements for society. Here are some examples, taken from our range of activities in 2012:

As consumers, we all use a multitude of IT services on a daily basis. Many of these services are supplied by suppliers that we do not know, or about which we know little. Nevertheless, we depend on being able to trust that our data will not be misused and that the services are

available at all times. SINTEF ICT is working on new methods and technologies aimed at developing robust IT services for the Internet of the future, identifying vulnerabilities and maintaining our confidence in services that are constantly evolving. IT security is being given high priority by the European Union, and SINTEF plays a central role in several exciting projects in this field.

SINTEF Petroleum Research has developed an advanced drilling simulator for Statoil, that is aimed at improving the safety and efficiency of drilling operations. Our development efforts have been carried out in collaboration with the Norwegian companies eDrilling Solutions AS and Oiltec Solutions AS. Statoil stresses that the simulator needs to provide realistic well responses, so that drilling personnel can train on dealing with real-life events. The simulator is based on mathematical well-control models that have been developed in the course of many years of research. The combination of down-hole simulator and advanced visualisation offer drilling personnel the potential for new understanding and control of advanced drilling and well operations.

Biofuels could help to meet two of the most serious challenges presented by today's fossil-fuelled transport sector, by reducing both our dependence of petroleum and the pollution caused by greenhouse gas emissions from road transport, shipping and aviation. Biofuels have been identified by the aviation industry as the most likely short- and medium-term renewable energy carrier. Several leading international airlines and technology suppliers are working on this topic. In 2011, Avinor launched a major Norwegian study to investigate the potential for achieving "Sustainable and profitable biofuel production for Norwegian civil aviation" by 2020 – 2025. This is a large-scale study even on an international scale, which is expected to be of decisive importance for the continued development of bio-jetfuel in Norway. SINTEF Energy Research performed a benchmarking survey of conversion and production technologies for synthetic aviation biofuels with the aim of recommending which technologies would be most efficient and suitable for Norway. The study examined a range of technologies, which biomass resources would be most suitable for each technology, and their individual strengths and weaknesses. Inform-

ation was acquired from the open literature, the SINTEF Energy Research's own expertise and contact with leading companies in aviation biofuel production, as well as close collaboration with Sandia National Laboratories in California, a world leader in research in this field.

The Arctic is being given high priority by the Norwegian authorities, and is also important in a global context. The reduction in ice cover in the Arctic could lead to an increase in sea transport in the region, and the number of ice-free ports will rise. Where there are people, we need infrastructure. Sustainable infrastructure in the arctic will require research on combinations of several factors, including extreme climatic conditions, high rates of erosion, a lack of high-quality traditional building materials, high transport costs, environmental stresses and permafrost. In the worst case, structures built in vulnerable regions can contribute to ice-melt and loss of permafrost. In order to develop the regions on a basis of knowledge and expertise in a sensitive environment, SINTEF Building Research is currently involved in major collaborative research effort called SAMCOT, a centre for research-based innovation that is led by NTNU.

A prerequisite for increased transport and responsible resource exploitation in the Arctic is the availability of communications systems and infrastructure. There is a need for better coordination, surveys and R&D on communications systems in the Arctic. MARINTEK has played a leading role in efforts to improve communications in the high north, for example in the MARENOR (Maritime Radio System Performance in the High North) project, in collaboration with EMGS, Remøy Havfiske, Telenor, Kongsberg Seatex, SINTEF ICT, Polar Science Guiding, UniS and Wroclaw University of Technology. Efforts to create conditions for safer operation in the Arctic are taking place via wide-ranging collaboration with industry and academia.

In the early fifties, Norwegian catches of wild lobster were around 1000 tonnes a year. Today, that figure has fallen by 95%. This serious fall in catches has led to young lobsters being set out every year for extensive aquaculture. The problem with lobster farming is that very few larvae survive the earliest phases of life. Now, scientists at SINTEF Fisheries and Aquaculture have raised survival rates by 20 – 40 per cent by feeding the baby crustaceans the eggs of copepod (tiny crustaceans), raising hopes that the threatened wild population will be able to recover. The next aim is to start industrial production of copepods. This would solve a number of problems for producers of lobster fry and improve the quality of several other cultivated marine fish larvae, such as ballan wrasse, halibut, turbot and cod.

SINTEF's social scientists were previously active in industrial development in Botswana, with financial support from Norad. Together with local researchers, we developed a "toolbox" for efforts of this sort. This was further developed in the course of a number of projects in Norway, and subsequently adapted and used in Ghana in western Africa. The main recipe is a methodology that increase the value-adding capability of a company by emphasising how financial and production steering and organisational development interact. The aim of the project is to strengthen Ghana's ability to develop supply companies that meet the stringent quality requirements of the petroleum sector. Meanwhile, in collaboration with NTNU, local industrial and public-sector employees are being offered master's-level courses in project management in Accra.

Infectious diseases are a growing problem all over the world. The spread of disease has traditionally been linked to person-to-person contagion. The infectious disease legionellosis or legionnaires' disease is transmitted via environmental contagion, and has not been

shown to be transmitted from person to person. Preventing legionellosis therefore requires knowledge of environmental conditions. As a result of several years of cooperation with the Royal Norwegian Navy, SINTEF is now able to identify sources of contagion and sites of growth of legionellosis in water systems on board vessels. This has enabled us to develop new strategies for monitoring and preventing outbreaks of legionellosis. The project is a good example of the value and importance of collaboration between researchers and users.

Health, Safety and Environment (HSE)

HSE is given the highest priority by SINTEF, and the safety of our staff is more important than any other consideration. In the course of the years, SINTEF has made systematic efforts to improve all aspects of our work environment. HSE has a clearly identified place in our governance system and our daily work, and is solidly rooted among both management and employees. Staff involvement and good leadership are of the greatest importance for the work environment.

Aim: SINTEF aims to have zero injuries, accidents and losses.

HSE/Ethics has been established as the first item on the agenda of meetings at SINTEF. In 2012, a guide containing assistance with and suggestions regarding relevant HSE topics in internal meetings was produced and made available throughout the organisation.

SINTEF's electronic reporting and deviation system ensures that HSE reports are systematically followed up. In 2012, we focused on training case officers and we saw a positive trend towards the end of the year in our ability to close cases. The number of HSE reports of hazardous conditions and observations was about the same as in 2011. Injury-related sick-leave (H1) and incidence of personal injury (H2) indices were lower than in that year. In 2012, H1 was 1.1 and H2, 2.9.

ScoreCard, a new methodology for work environment protection in our laboratories, was introduced via a SINTEF-wide campaign in 2012. ScoreCard can be characterised as an HSE points card, and it has helped to improve HSE praxis, with raised standards of laboratory safety and work environment. Several of our departments have found the methodology to be a positive step towards improvement efforts, and will continue to use ScoreCard.

Significant quantities of chemicals are used in SINTEF's research. Chemicals must be handled safely in order to protect the health of our staff and the physical environment. In 2012, we put a significant amount of effort into improving our routines for handling chemicals, and this process will continue in 2013.

Aim: SINTEF will have a zero rate of work-related sick-leave.

Sick-leave was 3.5 per cent in 2012, as against 3.7 in 2011. Work-related sick-leave in 2012 was 0.3 per cent, compared to 0.4 per cent in 2011. Sick-leave is systematically followed up at departmental level. Managers, supported by human resources personnel, have the primary responsibility for follow-up.

Aim: SINTEF will have a good, healthy work environment.

Our work environment was surveyed in January 2012. The response rate was 93 per cent and there were high scores on such important work environment factors as motivation, enjoyment of work and team spirit. The high response rate bears witness to be fact that our employees want to participate in the development of their work environment. Reporting the results created involvement, and was actively followed

up. Follow-up efforts are given priority at all levels of the organisation, and imbue the survey with value and involvement.

The 2012 work environment survey was drawn up to map the status of a healthy work environment. An index consisting of eight factors was mapped, in which the factor “openness to our diversity” obtained the highest score. The results of the 2012 survey will provide a frame of reference for future measurements of this topic.

HSE training continued in 2012, and an introductory e-learning HSE course was brought into use. Classroom-based courses continued to be given. Efforts to increase the availability and frequency of training courses, particularly in the laboratory, were launched. A large number of departmental management teams underwent HSE training in 2012.

A meeting of work-safety representatives was held in November; this attracted a large number of participants and had an densely-packed programme. The principal safety representatives of two external companies shared their experiences with the meeting, and participants were given valuable lessons about the psychosocial work environment.

Customers

SINTEF creates opportunities for its clients and contributes in this way to the creation of value and the development of society in a positive direction. This is our most important contribution to society. In 2012, SINTEF performed 7,199 projects for a total of 3,402 customers, large and small.

An increasing number of projects for external clients are performed by a cross-section of SINTEF groups. A broadly-based approach involving several different groups means that we have a unique ability to develop good solutions and create value for our customers and for society as a whole.

Our relationships with our clients and our understanding of their needs are of decisive importance in this respect. Customers and customer contact are leading items on the agenda of our management team. This also includes closer dialogue and contact with the authorities, in the first instance in Norway, but also within the European Union.

In 2012, SINTEF held a series of important high-level meetings with major international companies and institutions. These were held in order to strengthen our strategic dialogue and to develop concrete new projects. In meeting of this sort, SINTEF presents new technology and its assessments of important trends in development, based on its clients’ needs and SINTEF’s expertise. Good follow-up of these meetings is given high priority.

Good contact between researchers and clients is important for the execution and development of good projects. High-quality management, good performance and teamwork are all core aspects of implementing projects. We follow up our clients via systematic customer satisfaction surveys, whose results are used to continuously improve our ability to carry out our work in a satisfactory manner.

SINTEF has provided input to the Ministry of Education and Research both for its forthcoming research white paper and regarding the need for a national ICT strategy; to the Ministry of Fisheries and Coastal Affairs regarding the Hav21 programme, which was launched in November 2012, to the white paper on construction policy, which proposed the establishment of the Bygg21 programme among other measures; and to a number of other current research-policy and strategic

processes. It is a positive sign that national strategies are beginning to be put into effect in a number of industrial sectors. Joint research strategy platforms that encompass both industrial interests and the authorities are of great importance in terms of scientific quality and our ability to innovate. SINTEF has given high priority to these processes.

Science

Our efforts to develop SINTEF’s profile as a research organisation continued in 2012. We stress the importance of international publishing, and the Board emphasises the importance of publications as our contribution to the international generation of new knowledge. Publishing helps to profile and strengthen the scientific quality of our work. Our aim is to exceed one peer-reviewed publication per year of researcher effort. In 2012, this figure was 0.80 articles per researcher-year, compared with 0.70 in 2011 and 0.54 in 2010.

Investment in laboratories is essential if Norway is to be able to develop as a “knowledge-based nation” and to be competitive in the international arena. Profits from our activities are invested in laboratories and scientific equipment in order to enhance our ability to perform important tasks for society. SINTEF currently has three projects on the Research Council of Norway’s infrastructure route-map. In the autumn 2012 round of applications, SINTEF submitted a total of ten applications for large-scale infrastructure funds (i.e. greater than NOK 30 million).

Strategic cooperation with universities and other research institutes is important as a means of ensuring that Norway has a strong national knowledge base. The strategic cooperation between SINTEF and NTNU is of great importance, as it helps to ensure that SINTEF’s applied research lies at the leading edge in academic terms, and that NTNU performs a wide range of research projects aimed at providing concrete solutions for industry and society.

The Research Council of Norway has awarded thirteen research groups the status of Centres of Excellence (SFFs) from 2013. SINTEF is a partner in the Centre for Autonomous Marine Operations and Systems, which is led by NTNU. All in all, SINTEF is participating in 20 centres in the Research Council of Norway’s programmes aimed at promoting long-term international leading-edge research. Besides the SFFs, these programmes comprise the Centres for Research-led Innovation (SFIs) and Research Centres for Environmentally Friendly Energy (FMEs).

People

SINTEF aims to be an attractive work-place that offers unique prospects for personal development to people who both “can and will”. We check whether SINTEF is perceived as such every two years via our work environment survey. This survey was performed most recently in winter 2012, and it documented SINTEF’s good qualities as a work-place. The process of exploiting the survey to further develop SINTEF as an attractive work-place continued throughout 2012 in all our departments.

Management is important in this connection, and SINTEF makes systematic efforts to develop its individual and team management resources in line with its joint management principles. We are steadily putting more emphasis on improving the ability of our managerial staff to cope with large and complex projects, and to cooperate effectively across scientific and organisational boundaries. This process is essential as a means of enabling us to address the major challenges of our time.

SINTEF is doing well in the struggle to recruit highly competent staff in a global market. We place a great deal of emphasis on looking after and developing the people we already have, while making efforts to ensure that recruitment will go well in the future by developing our “brand” and through national and international profiling efforts.

2012 was a year in which SINTEF focused on maintaining its level of activity at a testing time. Staffing levels were reduced in certain groups in order to adapt our capacity to lower levels of activity in some markets. The total number of employees fell by 23, and was 2,045 per 31.12.2012. Of these, 1,176 were employed by the SINTEF Foundation. In the category of academic personnel, 66 new appointments (8 per cent) were made, while 95 colleagues (11%) left. Research staff who leave SINTEF make important contributions to competence development in industry and the public sector.

Fifty-one per cent of SINTEF’s research staff hold doctorates, and 373 (20 per cent) of our staff in 2012 came from 69 countries other than Norway. This demonstrates both that SINTEF is attractive to international scientists and that we help to recruit highly qualified workers to this country. An international staff also gives SINTEF access to valuable scientific and cultural competence. The largest numbers of our foreign employees come from Germany and France.

Equal opportunities and family policy

SINTEF’s Ethics Handbook states that:

“All people are equally valued by SINTEF. No form of discrimination is acceptable, whether on the grounds of race, gender, religion, sexual orientation or age. SINTEF will work to achieve a good work environment that is characterised by equality and opportunity.”

SINTEF received the 2012 Diversity Prize, which is awarded annually by the Directorate for Integration and Diversity to an organisation that has distinguished itself through its efforts to ensure diversity in the workplace.

Equal opportunities efforts are primarily the responsibility of the SINTEF Group management. One of the aims of SINTEF is to raise the proportion of female research staff and managers. This means that SINTEF attempts to recruit women to new appointments and to promote female managers from its own ranks. Even so, structural inequalities in the recruitment base that emerges from our educational establishments are reflected in SINTEF’s staffing.

The gender distribution within SINTEF is shown in the following table.

Gender distribution, per cent

	Men	Women
Board	56	44
Group management	79	21
Research directors and managerial staff	64	36
Researchers	74	26
SINTEF	67	33

The President and CEO of SINTEF is female.

SINTEF is a signatory to the following agreements: NHO/Tekna, NHO/NITO, NHO/Forskerforbundet, NHO-Abelia/LO-NNTL and NHO-Abelia/Parat. We hold annual salary negotiations with SINTEF employee representatives. Salaries and working conditions are set following discussions and negotiations with employee representatives of individual trade unions. Women are evaluated on the same basis as

men, and we are making systematic efforts to ensure that undesirable salary differentials do not emerge.

Seventy-nine per cent of our work-force are in full-time positions. Twenty-eight per cent of our female employees, and 17 per cent of male staff, currently work part-time. One reason for part-time employment is that our staff are taking advantage of the opportunity to reduce their working week via the negotiated pension agreement. SINTEF makes little use of temporary appointments. At the turn of the year, we had 42 temporary employees (2 per cent), of whom 17 were women and 25, men.

SINTEF’s 2012 work environment survey revealed no significant differences in how women and men experience their work situation. We will continue to develop goal-oriented measures to ensure that SINTEF is an attractive work-place for women.

SINTEF aims to compete successfully in the international recruitment arena. Many research positions are advertised in English, and vacancies in SINTEF are internationally accessible on the Internet.

In order to ensure that staff from other countries are well looked after, SINTEF has set up an integration programme for new appointees from other countries and their families. The programme offers expatriate services, free Norwegian classes and teaching in English in the SINTEF School. Diversity management is one of the topics of the School’s management development programme. The Work Environment Survey has documented that our colleagues from other countries are very happy at SINTEF.

SINTEF makes serious efforts to meet the requirements of its employees who have special needs for work-place adaptations. The SINTEF Foundation is an Inclusive Working Life (IA) company. Our IA objectives include a commitment to adapt work-places for such of our staff as already have, or who develop, disabilities. We cooperate with the Norwegian Labour and Welfare Administration in these efforts, and we utilise available public-sector support schemes. Another explicit aim of our IA efforts is that we will continue our current practice by focusing on competence when recruiting new colleagues, rather than on their limitations due to disabilities.

SINTEF intends to be an organisation with room for well-rounded people who have a life that extends beyond their work. We therefore offer flexible solutions to meet individual needs for flexitime, and the possibility of shorter working hours for parents. SINTEF subsidises kindergartens in Trondheim and Oslo.

Internationalisation

Internationalisation is an integral part of SINTEF’s activities. Our internationalisation strategy comprises five main elements: reinforcing our academic networks, participating in the EU’s Framework Programmes for research and development, selling our contract research on the international market, international recruitment and establishing a presence in selected overseas markets.

SINTEF is by far the largest Norwegian participant in the EU’s 7th Framework Programme, which enables us to develop competence in areas of great importance for this country. By October 2012, SINTEF had participated in 188 projects under the EU’s 7th Framework Programme, and had coordinated 44 projects. In total, the European Union has provided NOK 112 million in financial support to these projects. The fact that SINTEF is competitive in this market demonstrates that we have been able to develop internationally recognised

expertise. This is essential for SINTEF's ability to play its role in domestic society. The greatest challenge facing us is that the frame conditions for our participation are poor, and we are making continuous efforts to improve them. SINTEF is currently focusing on positioning itself vis-à-vis Horizon 2020, the next Framework Programme.

Our international turnover in 2012 came to MNOK 461, as against MNOK 412 in 2011, and is equivalent to 16 per cent of SINTEF's total turnover, as against 15 per cent in 2011. We have carried out projects for clients in 63 countries. EU projects make up around 50 per cent of our international contract research. Apart from the EU, the USA is our most important market for R&D cooperation, but we have also strengthened our cooperation with China, India, South Korea and South Africa. SINTEF is also expanding its presence in South America, for example in the Brazilian petroleum sector and in aquaculture in Chile. The establishment of the research foundation Instituto SINTEF do Brasil was an important further step in this direction. In April 2012, we were the first international organisation to be granted ANP accreditation in Brazil.

Environment

SINTEF takes the environment seriously, and given our vision of "Technology for a better society", we pay close attention to sustainable development in every aspect of our activities. For SINTEF, the concept of sustainable development encompasses good governance of our organisation, social responsibility and care for the environment. SINTEF environmental policy is that both our research and the way in which we run our own organisation take environmental considerations into account. Our policy is also intended to ensure that our own environmental performance undergoes continuous improvement. (SINTEF's environmental policy)

Environmental policy also involves a set of obligations, and SINTEF aims to meet the international environmental management standard 14001. In 2012, all of our departments carried out a survey of their environmental control status. This showed that many departments had come a long way, while others still have much to do to meet our goals in this area.

By July 2013, all of our departments should have completed the survey of their environmental profile, and have prioritised the most important targets and identified means of meeting them. Action plans are to be drawn up and approved by departmental management groups.

In 2012, we had two incidents that affected the external environment. In one case, a pipe to an oil separator became displaced, with the result that a small quantity of oil was discharged to the soil. The contaminated mass was collected and taken to a landfill site. In the other case, an oil separator filled up and oil leaked out through the membrane and into the sea. The fire service laid out an oil-boom and the oil was collected and taken to a landfill site.

Many of our activities impact the environment, and we actively strive to establish national and international R & D programmes to develop environmentally friendly technology, and we ourselves contribute to this goal via our leading-edge expertise. SINTEF's environmental profile is communicated externally via our research and expertise in the environmental field. We perform systematic evaluations of our suppliers regarding their policy for the external environment when contracts are signed or renegotiated. The resulting requirements have been incorporated in our standard contracts.

Ethics

SINTEF accepts its responsibilities vis-à-vis society, and intends to maintain a high standard of ethics throughout its range of activities. Our efforts in this field have three dimensions: research ethics, business ethics and the ethics of interpersonal relationships. Our research ethics policy is based on the regulations of national ethics committees, the principles of the European Group of Ethics in Science and New Technologies and international conventions such as the Vancouver Convention.

SINTEF expects and requires our suppliers and partners to share our ethical foundations. Suppliers and partners who are involved in our activities must accept SINTEF's ethical guidelines in writing.

SINTEF is a member of Transparency International, which works to prevent corruption at national and international level, and of UN Global Compact. As required by Global Compact, we have submitted a "Communication on Progress" that covers ten principles regarding human rights, work standards, the environment and combating corruption. The status report forms part of SINTEF's annual reporting system.

One of SINTEF's group directors currently chairs the Ethics and Social Responsibility Committee of the Confederation of Norwegian Enterprise (NHO).

Following up our ethical guidelines is a responsibility of line management. SINTEF also has an Ethics Council and an Ethics Representative to back up our efforts in this field. The Ethics Council has six members, all of whom are SINTEF managerial staff or have been elected by our employees. The Council held four meetings in 2012. The Ethics Representative acts as an advisor and discussion partner for the entire organisation, and also participates in a number of external fora. The Ethics Representative system means that SINTEF satisfies the requirements of the Work Environment Act regarding the need for an internal alert channel.

Financial freedom of action

In 2012, the SINTEF Group made an operating profit of NOK 98.6 million, as against MNOK 98.1 in 2011. The result before tax was MNOK 131.8, as against MNOK 141.7 in 2011.

There was a growth in turnover of 6.6 per cent in 2012. The market was very good throughout the year in the petroleum sector, but has become extremely challenging in other areas, in particular those that concern land-based activities, such as solar and wind power and the pulp and paper industry. We have noted that the times have become more difficult in financial terms. At the same time, our efforts in energy and climate research and in petroleum exploration on the Norwegian continental shelf have led to significant growth in some of our other areas of activity. We are focusing on good operating practices, in order to ensure that we continue to obtain good results.

At the end of 2012, our liquidity situation was good. SINTEF has established a Group-wide scheme for placing its liquid reserves. The portfolio is placed in accordance with the "Regulations for financial management in SINTEF" of November 2012, and in 2012 our average level of deposits was MNOK 304, as against MNOK 292 in 2011. Our low-risk profile brought us a portfolio profit of 5.8 per cent in 2012 (1.75 per cent in 2011). 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. In order to limit the risks involved, we utilise futures contracts. We have specifically

evaluated the risks involved and the freedom of action available to us in the event of a major failure of the Euro.

It is important for SINTEF to be able to create a financial profit that is invested in new research and competence development. In 2012, SINTEF invested MNOK 153.6 in laboratories and scientific and other equipment, and MNOK 12.5 in self-financed research projects at Group level. The corresponding figures in 2011 were MNOK 87.5 and MNOK 14.9 respectively. We also invested MNOK 33 in SINTEF Project and Knowledge Management (SIPOK), which is destined to become an important part of SINTEF's research infrastructure. Via SIPOK we have established modern IT support tools with new work processes and systems that will simplify and improve the working day for SINTEF's staff. SIPOK comprises tools for project planning, resource allocation, coordination, reporting, document handling, and electronic filing and searching.

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. The boards of our subsidiary companies have performed similar analyses, and all have concluded that continued operation is justified. As far as the Board is aware, since the closing of the annual accounts there have been no developments of significance for the evaluation of the financial position of the Foundation or the Group.

On 31.12.2012, the equity capital of the SINTEF Group was MNOK 2,248, (MNOK 2.154 in 2011) which is equivalent to 65 per cent (63%) of our total capital. The corresponding figures for the SINTEF Foundation are an equity capital of MNOK 1,987 (MNOK 1,909), equivalent to 74 per cent (73%) of total capital.

The annual result for the SINTEF Foundation in 2012 was MNOK 78.4 (MNOK 81.2 in 2011), all of which has been transferred to Other Equity.

Governance structures

SINTEF aims to be professional in its governance and management and to combine this with the ability to be creative and innovative and with an unbureaucratic decision-making structure.

SINTEF's central management bodies are its Council and Board. The Board is the ultimate governance organ of the Foundation, while the Council provides advice to the Board on the basis of the authority set out in the Foundations Act and revised statutes.

The Council ensures 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 consists of 28 members, comprising representatives of NTNU, the University of Oslo, the Research Council of Norway, industry, employee and employer organisations, and members elected by and among SINTEF's own staff.

The Board of the SINTEF Foundation is also the Board of the SINTEF Group. The activities of our four research companies are regulated by their statutes, shareholder agreements and group agreements. Our principles for group governance and for coordination with related organisations have been adopted in accordance with SINTEF's overarching objectives and strategy.

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. 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 such provisions of the Limited Companies Act as 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 eight meetings in 2012.

The SINTEF Group's management team is responsible for strategic management of the 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 Limited Companies Act. The President has the authority to act on behalf of the Foundation, with the exception of the purchase, sale and mortgaging of property and the purchase and sale of companies. Either the President or Vice-president of SINTEF chairs the boards of all of SINTEF's research companies.

SINTEF operates a quarterly risk reporting 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 on-going basis.

SINTEF's governance system is certifiable according to ISO 9001:2000, which covers the implementation of a common system for dealing with accident reports, undesirable incidents, other deviations and suggestions for improvements. SINTEF is also registered in Achilles, a joint qualification system for suppliers to the petroleum industry.

Prospects and challenges for the future

Our many groups of highly qualified researchers enable SINTEF to actively contribute to the efforts of the authorities to meet their goals in areas of importance to society.

New technology is of great importance for the development of solutions to central challenges facing society, such as providing the world with pure water, healthy food and clean energy, and exploiting the resources of a vulnerable natural world in a responsible manner.

Among our strengths are that we can offer multidisciplinary expertise and can cooperate across the disciplinary boundaries of individual research groups in SINTEF, enabling us to develop good solutions for our clients and for society.

Energy and the environment are important topics at global level. SINTEF will continue to put serious efforts into the fields of climate technology, renewable energy, energy efficiency and CO₂ capture and storage (CCS). SINTEF has built up a significant research presence in CO₂ treatment, renewable energy and construction technology, and will give high priority to continued research in these areas. Petroleum research also continues to be important, as oil will be an essential element of global energy supply for many years to come, while gas will be a vital resource as we convert from coal and oil to natural gas, which produces fewer CO₂ emissions. Social research is also of great importance as a means of producing solutions for a better society in a number of areas.

Industrial development in the Arctic has great potential. With its broad knowledge base, SINTEF can help to realise our 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.

The European Research Arena (ERA) plays a central role in SINTEF's work. In ERA we compete with research institutes that enjoy much higher basic grants from the public sector than does SINTEF. We are anxious regarding the frame conditions in EU research, and are attempting to secure the financial conditions required to enable Norwegian research groups to participate in Horizon 2020, the European Union's 8th Framework Programme for research for the period 2014 - 2020. SINTEF has drawn up a new EU strategy that identifies our ambitions and orientation from now until 2020.

It is extremely important that Norway should be able to renew its national laboratory and scientific equipment infrastructure in order to make this country competitive in the international arena. The largest project currently under development is the "Ocean Space Centre",

which will house the next generation of maritime laboratories in Norway. Other demanding tasks include the operation and development of major laboratories such as MiNaLab, the Multiphase Laboratory and the laboratories at Coast and Harbour Technology and MARINTEK. We are also working on plans for a new electric power laboratory, and we have launched the idea of an international leading-edge "Energy Village" in Trondheim.

Since the financial crisis began in 2008, we have experienced a reduced level of activity in industry-sponsored research. We hope that industrial research will be a focus of the 2013 election campaign, and we wish to contribute to the debate on this topic.

Our good results are due to the combined efforts of many people, including our own staff and our scientific and industrial partners. The Board wishes to thank everyone for their efforts and cooperation in 2012.


Trondheim, April 11, 2013


May-Britt Hägg


R. Rasmus Sunde
Chairman


Ingrid Selseth


Stig A. Slørdahl



Terje J. K. Andersen


Ole Swang


Ingrid Dahl Hovland


Ellen Cathrine Rasmussen

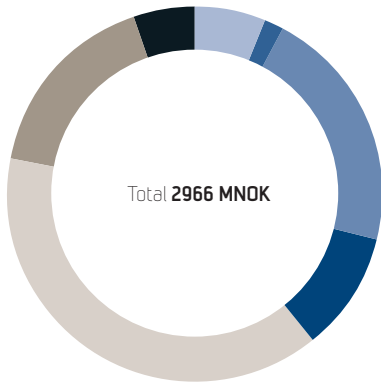

Gorm Johansen


Unni M. Steinsmo
President – CEO



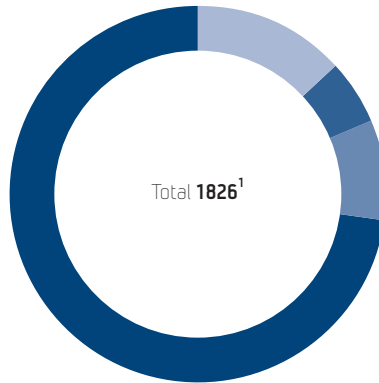
SINTEF 2012

Sources of finance
(% of gross operating income)



RCN basic grant	6%
RCN strategic programmes	2%
RCN project support	21%
Public sector	10%
Business and industry	39%
International contracts	17%
Other sources of income	5%

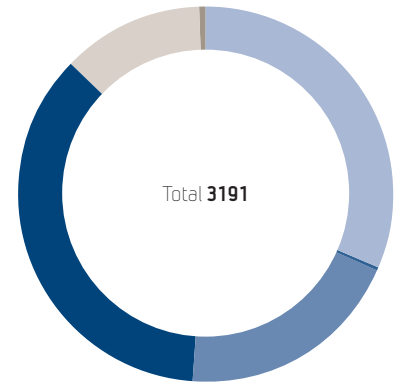
Employees



Administration	243
Technical personnel	98
Engineers	158
Researchers	1327 ²

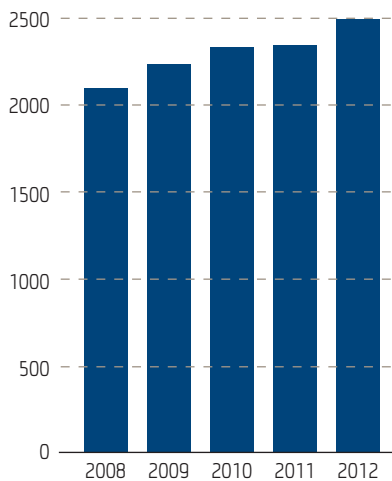
¹ not including SINTEF Holding
² of whom 671 hold doctorates

Publications
(including popular dissemination)

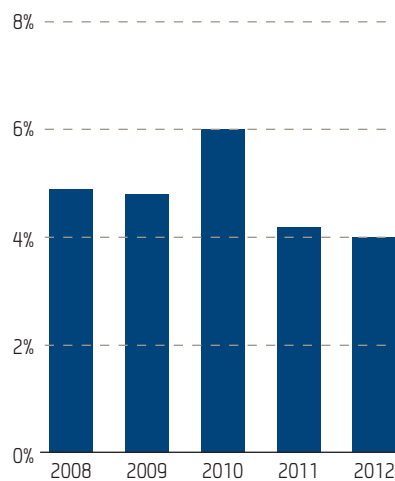


Academic articles in journals, series or anthologies	1008
Academic monographs	3
Academic lectures and posters	625
Reports	1156
Popular articles and talks	304
Textbooks, etc.	15

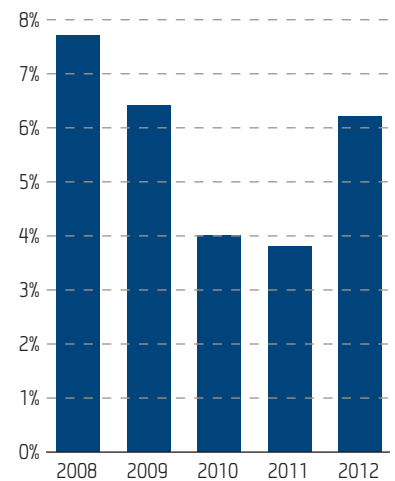
Net operating income
(MNOK)



Net operating margin
(%)

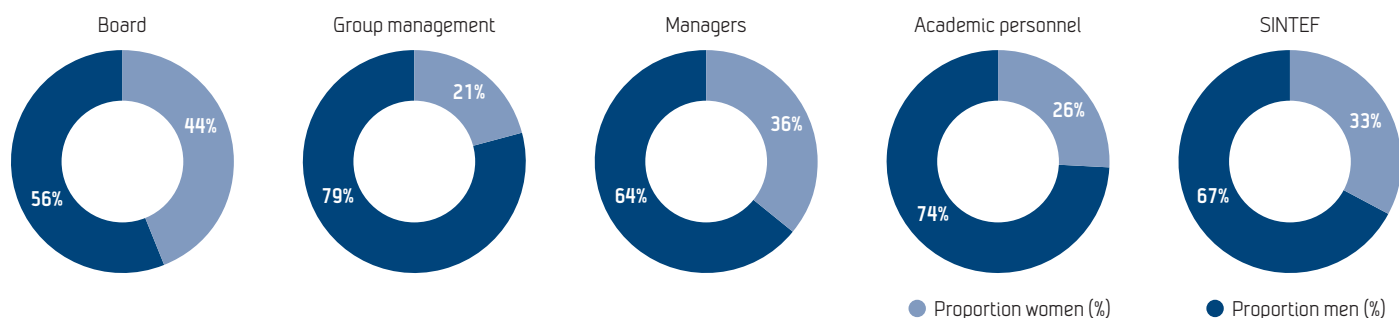


Investments
(% of net operating income)



SINTEF 2012

Equal opportunity in SINTEF



Key financial figures

MNOK	2008	2009	2010	2011	2012
Result					
Gross operating income	2 592	2 754	2 813	2 789	2 966
Net operating income	2 100	2 232	2 325	2 333	2 487
Operating result	103	107	139	98	99
Financial revenues	52	44	43	54	60
Financial expenditures	10	13	12	10	27
Profit/loss before tax	145	139	170	142	132
Annual result	137	131	539	98	94
Balance					
Fixed assets	719	788	1 134	1 123	1 168
Current assets	1 821	1 966	2 124	2 299	2 281
Sum assets	2 540	2 754	3 258	3 423	3 448
Equity capital	1 397	1 526	2 056	2 154	2 248
Long-term liabilities	60	85	70	79	68
Short-term liabilities	1 084	1 142	1 132	1 190	1 132
Liabilities	1 144	1 228	1 202	1 269	1 200
Sum equity and liabilities	2 540	2 754	3 258	3 423	3 448
Profitability					
Operating margin %	4.9	4.8	6.0	4.2	4.0
Total profitability %	6.5	5.7	6.1	4.6	4.7
Profitability of equity capital %	10.9	9.5	9.5	6.7	6.1
Liquidity					
Net cash flow from operational activities	89	325	317	196	196
Degree of liquidity 1	1.7	1.7	1.9	1.9	2.0
Solidity					
Equity capital %	55	55	63	63	65
Operating working capital	616	759	770	1 035	1 074

SINTEF 2012

Income statement

Figures in NOK thousand

SINTEF Foundation			SINTEF	
2011	2012	Notes	2012	2011
OPERATING INCOME AND EXPENSES				
1 140 157	1 225 941		2 098 330	1 928 134
333 385	350 553		611 656	614 782
107 170	119 392		187 540	171 437
106 918	98 370		68 515	74 445
1 687 630	1 794 256	2, 20	2 966 042	2 788 798
321 692	344 211		478 975	455 982
1 365 938	1 450 045		2 487 067	2 332 816
967 583	995 909	3, 12	1 732 145	1 657 718
59 626	62 470	4, 5	103 354	101 244
		4, 5	1 222	
279 865	327 887	3, 5	551 772	475 797
1 307 074	1 386 267		2 388 494	2 234 758
58 864	63 778		98 573	98 058
FINANCIAL INCOME AND EXPENSES				
14 605	12 616		29 019	30 609
15 524	14 597		30 782	23 373
33	465		2 208	590
1 075	2 963		24 371	9 767
29 020	23 785	19	33 223	43 625
23 012	8 942	6		
110 896	96 506		131 796	141 683
29 672	18 137	15	37 492	43 696
81 224	78 369		94 303	97 987
			15 935	16 764
			78 367	81 224
DISPOSITIONS				
81 224	78 369			
81 224	78 369			

SINTEF 2012

Balance sheet

Figures in NOK thousand

SINTEF Foundation			SINTEF	
2011	2012	Notes	2012	2011
ASSETS				
Long-term assets				
Intangible assets				
65 844	98 432	4	99 111	65 944
263 565	245 428	15	362 564	392 945
		4	5 051	1 810
329 409	343 860		466 725	460 699
Long-term operating assets				
372 631	406 354	17	473 438	433 360
39 672	48 319		121 580	109 903
19 016	17 675	17	31 394	33 296
431 319	472 348		626 412	576 559
Financial long-term assets				
665 972	702 914	6		
33 193	33 193	10		
48	42	7	3 453	18 872
19 627	22 704	12	64 112	57 250
2 487	2 439	10	6 911	9 705
721 326	761 292		74 485	85 827
1 482 055	1 577 500		1 167 612	1 123 084
Liquid assets				
2 512	3 828		5 138	3 822
171 148	225 046	9	346 872	253 475
173 660	228 875		352 010	257 297
Receivables				
228 864	271 518	17, 20	555 403	531 724
26 175	41 134			
59 978	13 101		94 397	110 085
315 018	325 752		649 800	641 809
Investments				
131 295	138 885	7	40 538	37 157
		8	311 822	294 786
131 295	138 885		352 360	331 943
518 054	414 690	20, 21	926 482	1 068 417
1 138 028	1 108 202		2 280 651	2 299 467
2 620 083	2 685 702		3 448 263	3 422 551

SINTEF 2012

Balance sheet

Figures in NOK thousand

SINTEF Foundation		SINTEF		
2011	2012	Notes	2012	2011
			EQUITY AND LIABILITY	
			Equity	
			Paid-up equity	
69 300	69 300		69 300	69 300
69 300	69 300		69 300	69 300
			Earned equity	
1 839 543	1 917 912		1 917 912	1 839 543
1 839 543	1 917 912		1 917 912	1 839 543
			Minority interests	
			260 716	244 781
1 908 843	1 987 212	11	2 247 928	2 153 624
			Liabilities	
			Provisions for liabilities	
		12	39 770	40 696
			916	
			40 686	40 696
			Other long-term liabilities	
		17	16 241	16 170
			11 063	21 908
		13	27 304	38 079
			Current liabilities	
118 796	73 968	17	1 225	25 475
		20	144 377	200 762
		15	11 780	12 379
87 645	116 890		203 588	175 052
251 065	212 979		321 462	385 208
3 101	5 961			
250 633	288 691	16	359	353
			449 554	390 924
711 240	698 490		1 132 345	1 190 153
711 240	698 490		1 200 335	1 268 928
2 620 083	2 685 702		3 448 263	3 422 551

SINTEF Building and Infrastructure

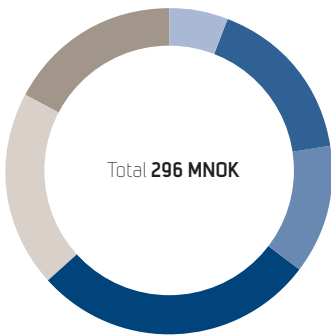
SINTEF Building Research is an internationally leading research institute that specialises in the sustainable development of buildings and infrastructure. We solve problems related to the entire building

process, and create value for our clients and for society through research and development, research-based consulting, product documentation and knowledge transfer.



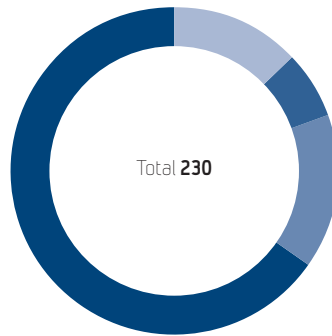
Sources of finance

(% of gross operating income)



RCN basic grant	6.1%
RCN project support	16.6%
Public sector	12.7%
Business and industry	27.9%
International contracts	19.5%
Other sources of income	17.1%

Employees

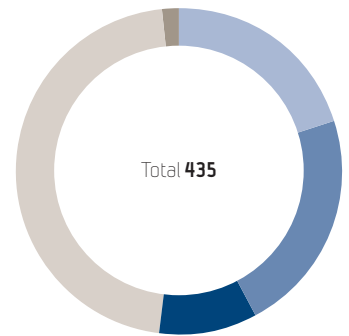


Administration	30
Technical personnel	15
Engineers	35
Researchers	150*

*of whom 43 hold doctorates

Publications

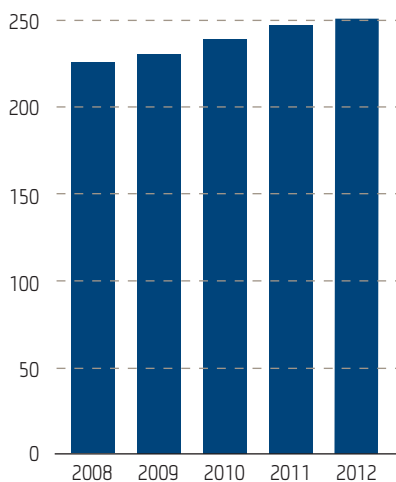
(including popular dissemination)



Academic articles in journals, series or anthologies	88
Academic lectures and poster	96
Reports	43
Popular articles and talks	201
Textbooks, etc.	7

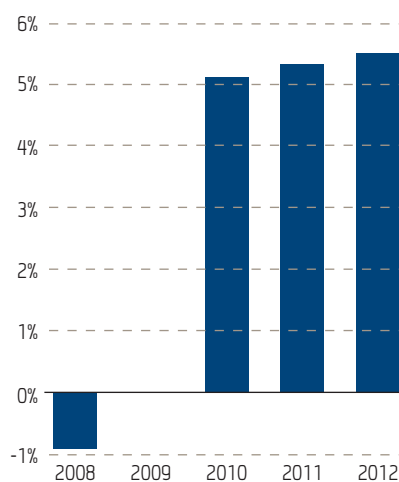
Net operating income

(MNOK)



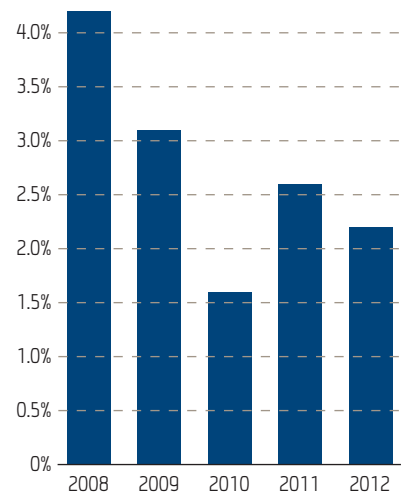
Net operating margin

(%)



Investments

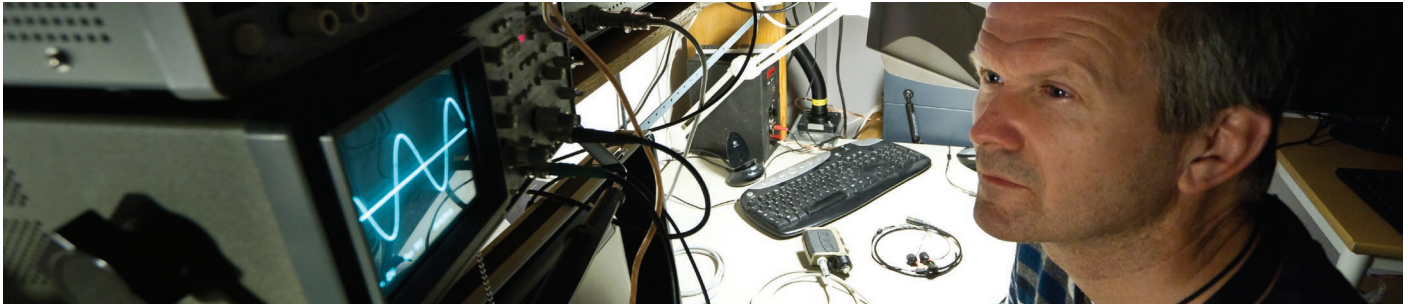
(% of net operating income)



SINTEF ICT

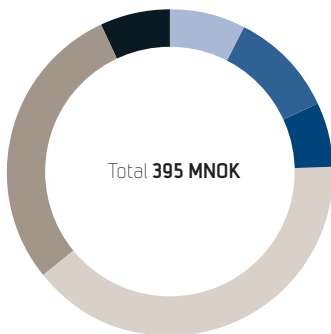
SINTEF ICT supplies research-based expertise and technology for the development of systems, products and services in the fields of micro- and sensor systems, monitoring and communication systems and information systems and numerical modelling software. We operate a

modern micro-/nanolaboratory (MiNaLab) that is among the world's leading laboratories in the development and small-scale production of radiation sensors.



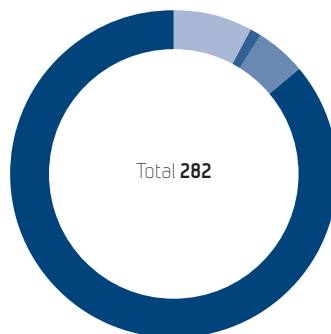
Sources of finance

(% of gross operating income)



RCN basic grant	7.7%
RCN strategic programmes	10.4%
Public sector	6.4%
Business and industry	39.9%
International contracts	28.9%
Other sources of income	6.7%

Employees

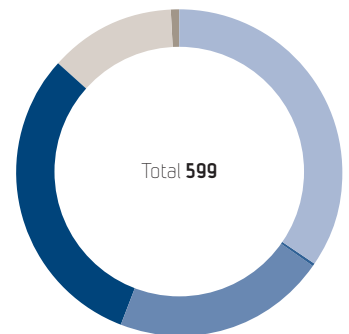


Administration	23
Technical personnel	2
Engineers	14
Researchers	243*

*of whom 120 hold doctorates

Publications

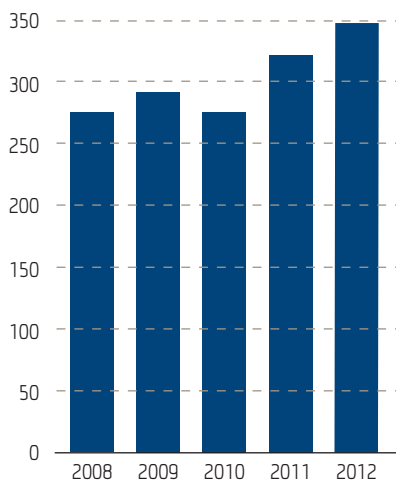
(including popular dissemination)



Academic articles in journals, series or anthologies	207
Academic monographs	1
Academic lectures and posters	127
Reports	185
Popular articles and talks	75

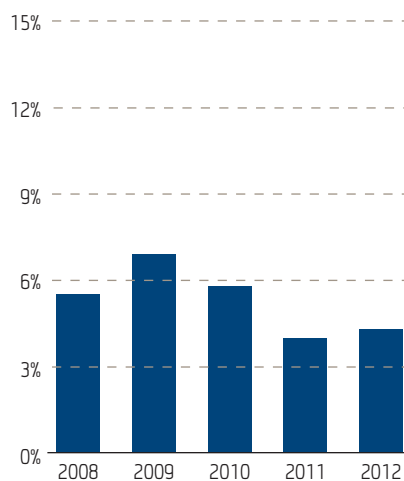
Net operating income

(MNOK)



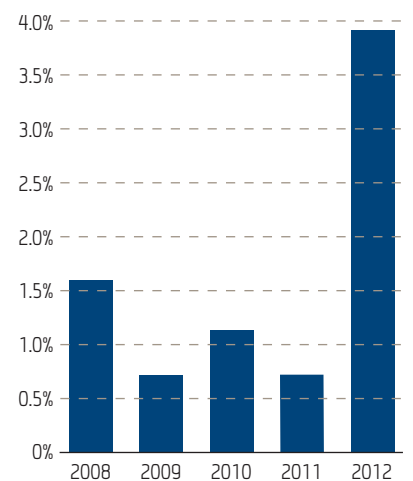
Net operating margin

(%)



Investments

(% of net operating income)



SINTEF Materials and Chemistry

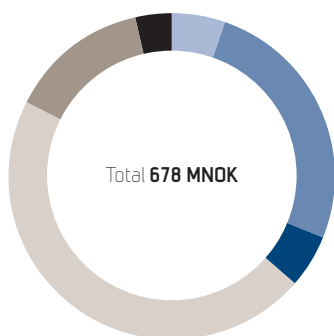
SINTEF Materials and Chemistry is a contract research institute that offers a high level of expert knowledge in materials technology, advanced materials, nanotechnology, applied chemistry and

biotechnology. We collaborate closely with international petroleum and process industries, and in developing environmentally friendly energy generation.



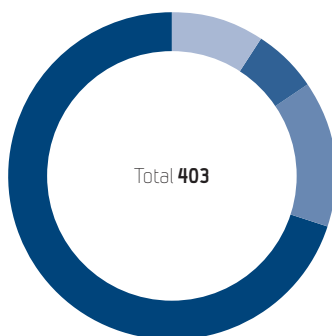
Sources of finance

(% of gross operating income)



RCN basic grant	5.3%
RCN project support	26.0%
Public sector	5.2%
Business and industry	46.0%
International contracts	14.0%
Other sources of income	3.5%

Employees

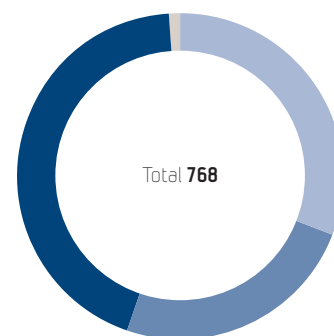


Administration	38
Technical personnel	25
Engineers	59
Researchers	281*

*of whom 194 hold doctorates

Publications

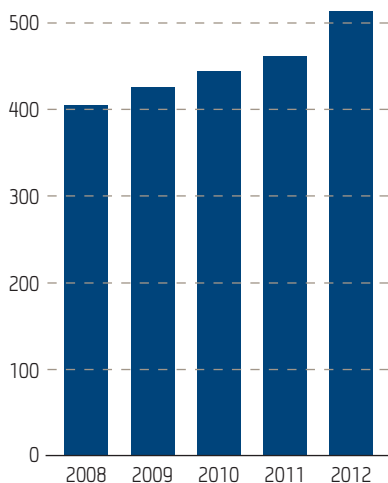
(including popular dissemination)



Academic articles in journals, series or anthologies	238
Academic lectures and posters	187
Reports	336
Popular articles and talks	7

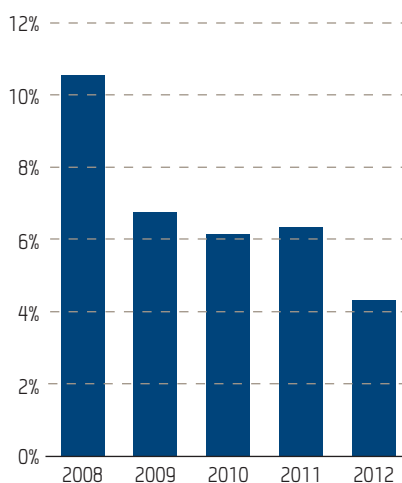
Net operating income

(MNOK)



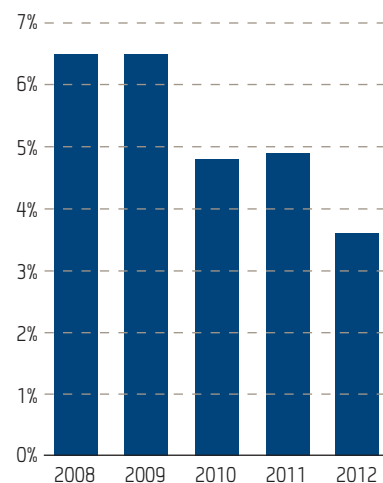
Net operating margin

(%)



Investments

(% of net operating income)



SINTEF Technology and Society

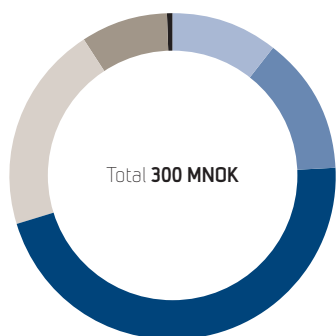
SINTEF Technology and Society is a multidisciplinary research institute that is active in the fields of industry, technology and the social sciences. We create solutions in the fields of health, care and welfare

services, dignified working conditions, a sustainable working life, efficient and safe transport systems, and climate and the environment.



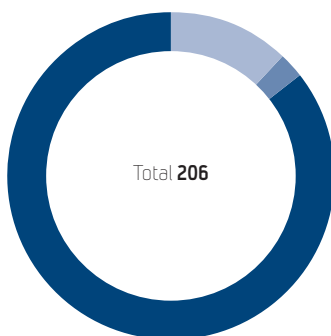
Sources of finance

(% of gross operating income)



- RCN basic grant 10.6%
- RCN project support 13.8%
- Public sector 46.1%
- Business and industry 20.4%
- International contracts 8.6%
- Other sources of income 0.5%

Employees

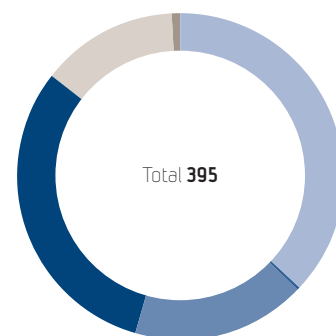


*of whom 69 hold doctorates

- Administration 25
- Engineers 5
- Researchers 176*

Publications

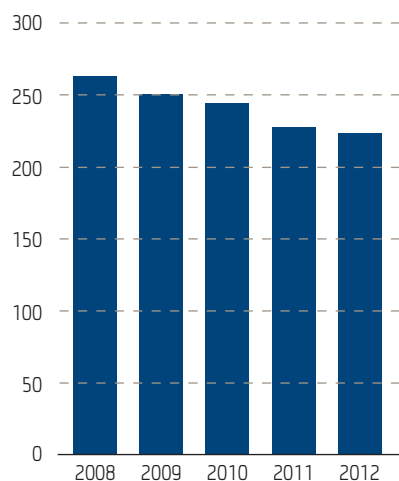
(including popular dissemination)



- Academic articles in journals, series or anthologies 146
- Academic monographs 2
- Academic lectures and posters 68
- Reports 123
- Popular articles and talks 53
- Textbooks, etc. 3

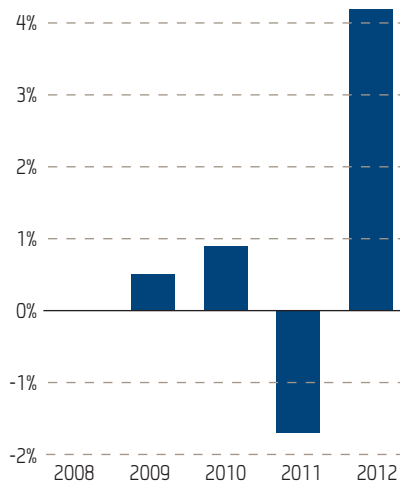
Net operating income

(MNOK)



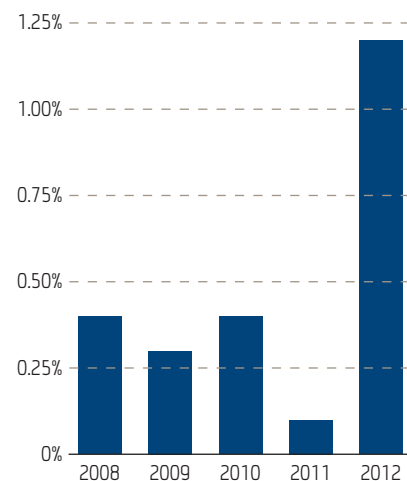
Net operating margin

(%)



Investments

(% of net operating income)



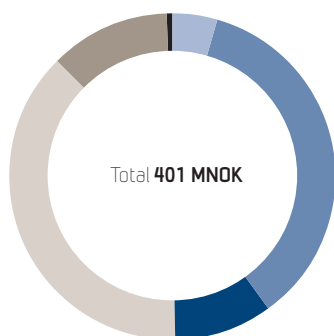
SINTEF Energy Research

SINTEF Energy Research operates in the fields of energy supply, gas technology, bioenergy, carbon capture and storage, efficient

industrial energy use and environmental impacts of hydro- and wind power.

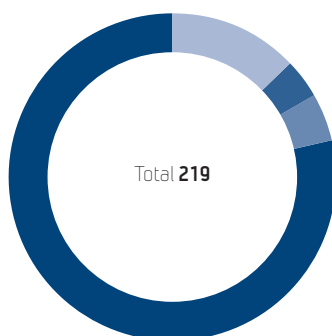


Sources of finance
(% of gross operating income)



● RCN basic grant	4.7%
● RCN project support	35.5%
● Public sector	9.8%
● Business and industry	37.7%
● International contracts	11.9%
● Other sources of income	0.4%

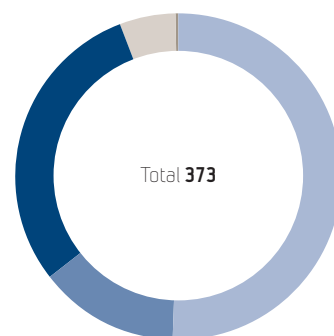
Employees



● Administration	28
● Technical personnel	9
● Engineers	10
● Researchers	172*

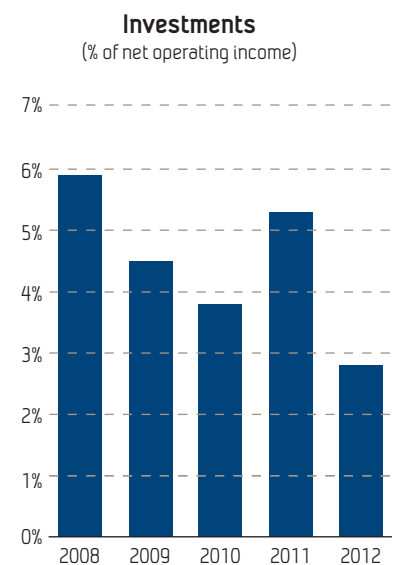
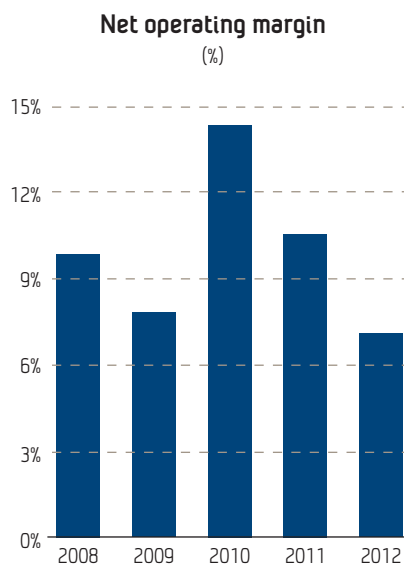
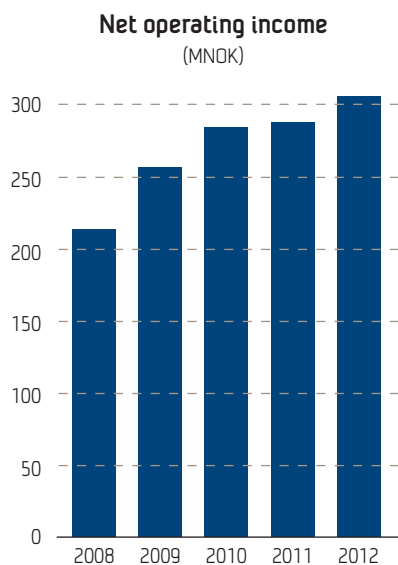
*of whom 87 hold doctorates

Publications
(including popular dissemination)



● Academic articles in journals, series or anthologies	189
● Academic lectures and posters	52
● Reports	111
● Popular articles and talks	20
● Textbooks, etc.	1

SINTEF Energy Research



Key financial figures

MNOK	2008	2009	2010	2011	2012
Result					
Gross operating income	299	376	401	404	401
Net operating income	214	256	284	288	306
Operating result	21	20	41	30	22
Annual result	30	33	46	30	25
Balance					
Fixed assets	70	83	95	101	98
Current assets	324	390	430	433	457
Sum assets	394	473	525	533	555
Equity capital	226	258	304	334	359
Liabilities	169	215	220	199	196
Sum equity and liabilities	394	473	524	533	555
Profitability					
Operating margin %	9.8	7.8	14.3	10.5	7.1
Total profitability %	8.4	7.9	10.5	7.4	6.1
Profitability of equity capital %	14.3	13.2	17.0	12.2	9.6
Liquidity					
Net cash flow from operational activities	22	63	90	14	38
Degree of liquidity	2.2	2.0	2.0	2.2	2.3
Solidity					
Equity capital %	57.2	54.6	58.0	62.6	64.7
Operating working capital	167	190	168	216	236

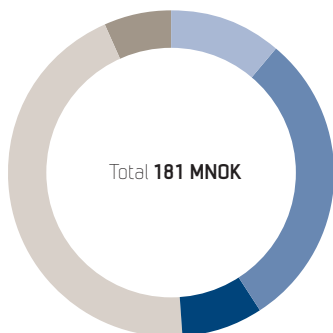
SINTEF Fisheries and Aquaculture

SINTEF Fisheries and Aquaculture Research AS is the leading European technological research institute for the fishing and aquaculture sector. Our technological research and development covers

the entire marine value chain. Our most important source of clients is the Norwegian fishery and aquaculture industry.

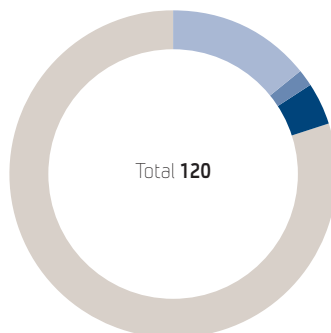


Sources of finance
(% of gross operating income)



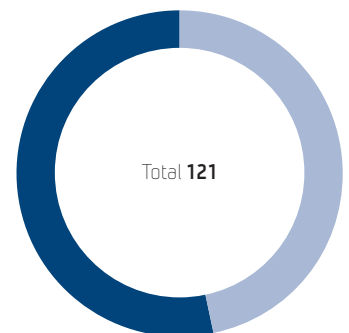
- RCN basic grant 11.3%
- RCN basic support 29.7%
- Public sector 8.0%
- Business and industry 44.5%
- International contracts 6.5%

Employees



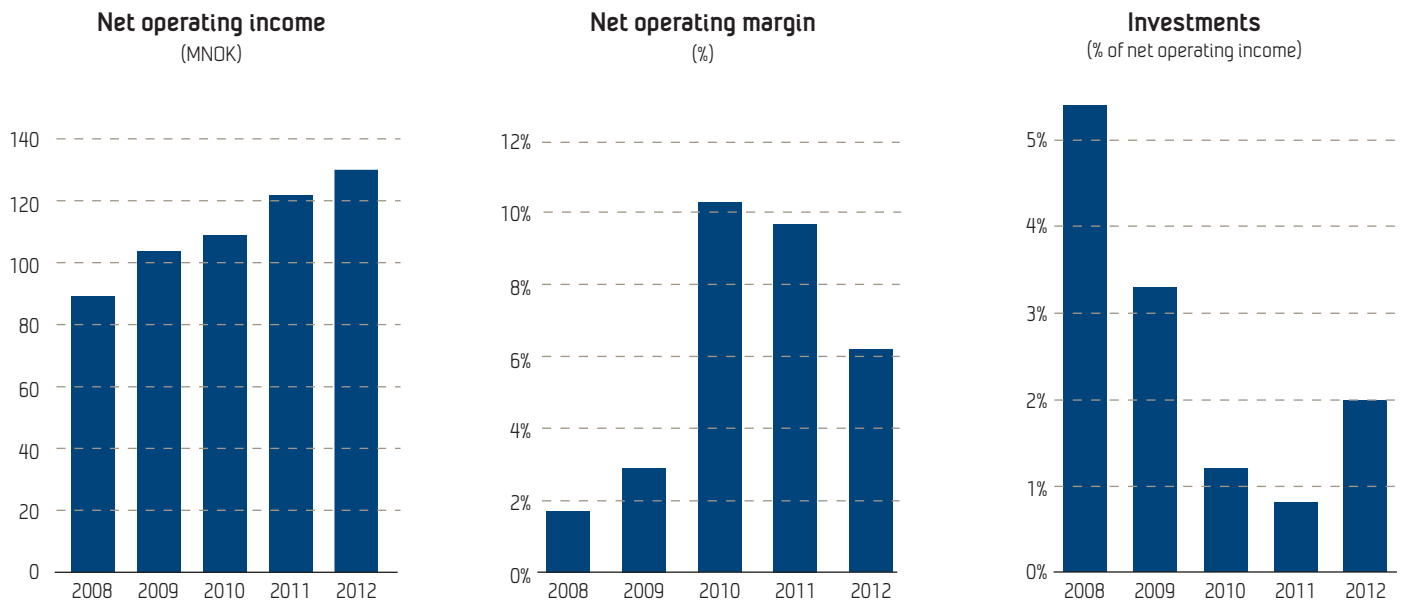
- Administration 17
 - Technical personnel 2
 - Engineers 5
 - Researchers 96*
- *of whom 50 hold doctorates

Publications
(including popular dissemination)



- Academic articles in journals, series or anthologies 56
- Reports 65

SINTEF Fisheries and Aquaculture



Key financial figures

MNOK	2008	2009	2010	2011	2012
Result					
Gross operating income	117	136	146	166	181
Net operating income	89	104	109	122	130
Operating result	2	3	11	12	8
Annual result	1	-2	11	13	8
Balance					
Fixed assets	23	17	17	14	16
Current assets	48	47	53	72	83
Sum assets	71	64	70	86	99
Equity capital	26	24	34	47	54
Liabilities	45	40	36	39	45
Sum equity and liabilities	71	64	70	86	99
Profitability					
Operating margin %	1.7	2.9	10.3	9.7	6.2
Total profitability %	3.7	5.2	17.6	17.0	10.7
Profitability of equity capital %	8.2	3.0	33	31.7	19.0
Liquidity					
Net cash flow from operational activities	7	-2	19	18	-7
Degree of liquidity	1.3	1.4	1.7	2.0	2.0
Solidity					
Equity capital %	37.4	36.8	48.8	54.6	54.7
Operating working capital	10	13	23	36	41

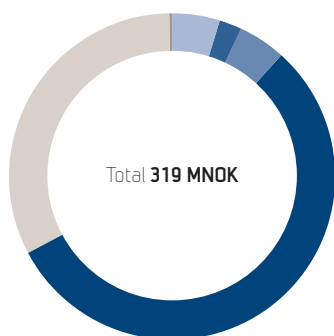
MARINTEK

MARINTEK performs research and development projects for industry and public-sector bodies, particularly those involved in the maritime and petroleum sectors and ocean energy production. We develop ocean space technologies in the fields of floating petroleum production, sub-

sea pipelines for oil and gas transportation, renewable energy from the sea, vessel development, and for the shipbuilding and maritime equipment industries, shipping and logistics.

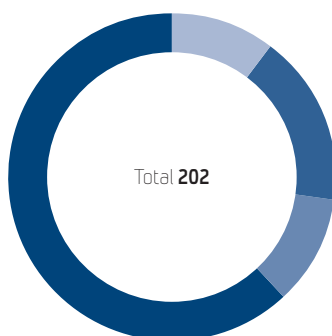


Sources of finance
(% of gross operating income)



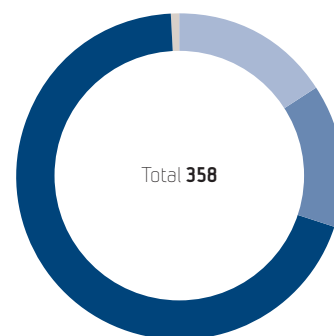
- RCN basic grant 4.8%
- RCN project support 2.2%
- Public sector 4.8%
- Business and industry 55.5%
- International contracts 32.6%
- Other sources of income 0.1%

Employees



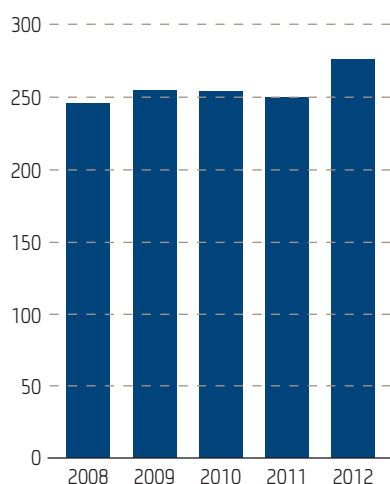
- Administration 21
 - Technical personnel 34
 - Engineers 22
 - Researchers 125*
- *of whom 50 hold doctorates

Publications
(including popular dissemination)

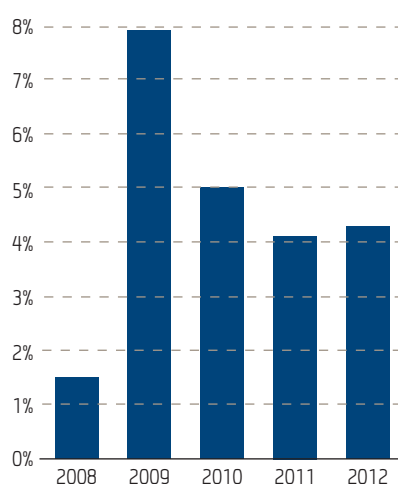


- Academic articles in journals, series or anthologies 57
- Academic lectures and posters 51
- Reports 248
- Popular articles and talks 2

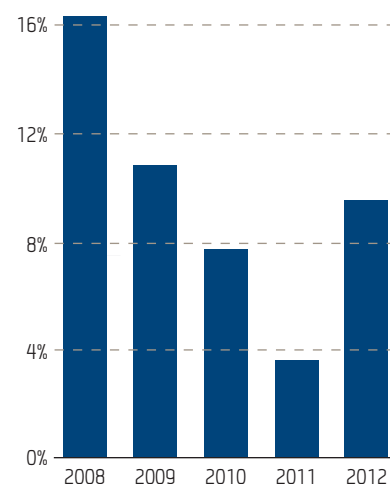
Net operating income
(MNOK)



Net operating margin
(%)



Investments
(% of net operating income)



Key financial figures

MNOK	2008	2009	2010	2011	2012
Result					
Gross operating income	292	310	297	296	319
Net operating income	246	255	254	250	277
Operating result	4	20	13	10	12
Annual result	9	21	14	13	15
Balance					
Fixed assets	46	41	90	85	98
Current assets	223	256	256	277	271
Sum assets	269	297	346	362	369
Equity capital	140	154	211	220	230
Liabilities	130	144	135	142	138
Sum equity and liabilities	269	297	346	362	369
Profitability					
Operating margin %	1.5	7.9	5.0	4.1	4.3
Total profitability %	0.7	3.5	2.0	1.4	1.6
Profitability of equity capital %	3.3	7.2	3.9	3.1	3.4
Liquidity					
Net cash flow from operational activities	-3	37	106	5	1
Degree of liquidity	1.7	1.8	1.9	1.9	2.0
Solidity					
Equity capital %	51.8	51.7	61.0	60.7	62.4
Operating working capital	109	129	143	156	155

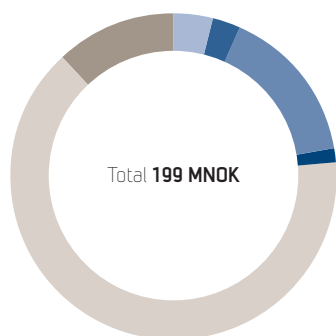
SINTEF Petroleum Research

SINTEF Petroleum Research AS focuses on improving the safe and profitable mapping and recovery of national and international

hydrocarbon resources in accordance with environmentally friendly principles.

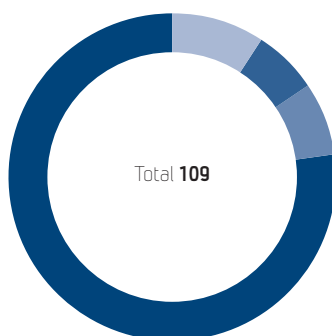


Sources of finance
(% of gross operating income)



RCN basic grant	3.9%
RCN strategic programmes	3.0%
RCN project support	15.4%
Public sector	1.5%
Business and industry	64.4%
International contracts	11.8%

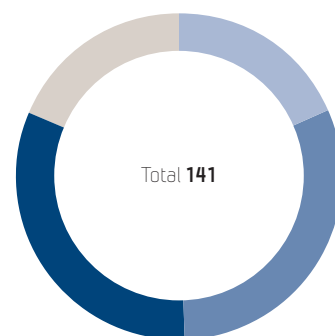
Employees



Administration	10
Technical personnel	7
Engineers	8
Researchers	84*

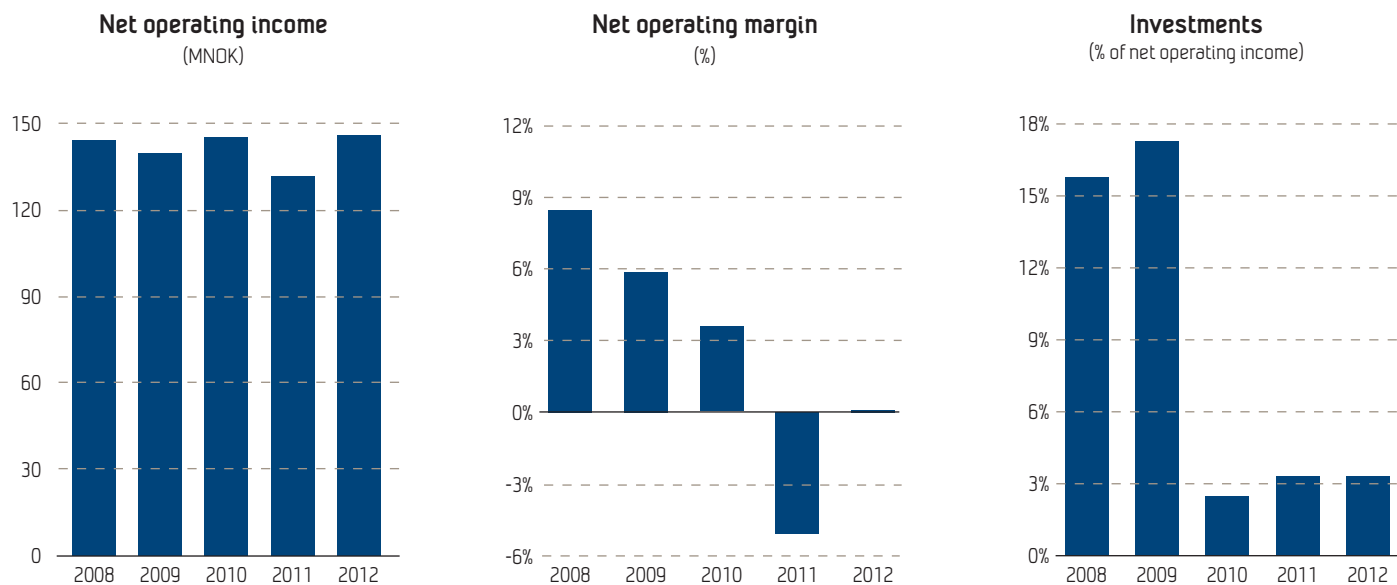
*of whom 58 hold doctorates

Publications
(including popular dissemination)



Academic articles in journals, series or anthologies	26
Academic lectures and posters	44
Reports	45
Popular articles and talks	26

SINTEF Petroleum Research



Key financial figures

MNOK	2008	2009	2010	2011	2012
Result					
Gross operating income	196	183	207	178	199
Net operating income	145	140	145	132	146
Operating result	12	8	5	-7	0
Annual result	17	15	57	-3	5
Balance					
Fixed assets	39	60	104	101	98
Current assets	210	194	209	211	223
Sum assets	249	254	312	312	320
Equity capital	163	178	235	232	237
Liabilities	87	76	77	80	83
Sum equity and liabilities	249	253	312	312	320
Profitability					
Operating margin %	8.4	5.9	3.6	-5.0	0.1
Total profitability %	7.7	6.2	3.5	-0.2	0.6
Profitability of equity capital %	11.1	8.9	4.6	-0.3	0.6
Liquidity					
Net cash flow from operational activities	30	49	14	15	-8
Degree of liquidity	2.7	2.9	3.2	3.2	2.7
Solidity					
Equity capital %	65	70	75	74	74
Operating working capital	114	108	123	130	126