

HSE Accounts for 2014

1 HSE policy

HSE is given top priority at SINTEF – the safety of our staff is more important than any other consideration. The HSE policy applies to all SINTEF-related activities in Norway and abroad. HSE is a management responsibility and should form part of our daily routine, in which our employees are required to participate.

SINTEF has a clear vision that aims for zero rates of accidents, injuries and losses. We will do our utmost to avoid accidents and work-related illnesses among our employees and those with whom we collaborate.

SINTEF aspires to maintain a good and healthy work environment. Our management will be clear, inclusive and inspiring. Our staff can expect to enjoy personal

development and recognition through coordinated activity and team spirit. Everyone in SINTEF will be treated with respect and dignity.

On the background of our vision of “Technology for a better society”, all aspects of SINTEF’s activities will be based on the concept of sustainable development, a concept founded on good management practices, social responsibility and respect for the environment.

SINTEF’s environmental policy is intended to ensure that both our research and the manner in which we ourselves operate respect the external environment. It should also ensure that our own environmental performance continues to improve.

2 SINTEF’s HSE plan for 2014

AIM: “SINTEF will maintain a good work environment that promotes good health”

Measures	Status 2014
<ol style="list-style-type: none"> 1. Good follow-up of the 2014 Work Environment Survey (AMUS). 2. Implement obligatory HSE training. 3. Implement e-training course ‘HSE for managers’. 4. Carry out HSE audits. 5. Hold a conference of safety representatives. 	<ol style="list-style-type: none"> 1. All units have drawn up action plans that are being followed up at local level. 2. HSE training is performed continuously. 3. E-training courses for managers are gradually being introduced. 4. An internal HSE audit has been carried out. 5. The safety representatives conference was held on October 30.

AIM: “SINTEF will have a zero rate of work-related sick-leave

Measures	Status 2014
<ol style="list-style-type: none"> 1. Follow up and prevent work-related health issues (SIPOK). 2. Survey the physical work environment (ergonomics, work-safety rounds, work-hygiene measurements, etc.). 	<ol style="list-style-type: none"> 1. Line management is following up work-related sick-leave. Needs for follow-up have not been particularly related to SIPOK. More could be done regarding prevention of health issues related to office work-places (ergonomics). 2. Office work-place ergonomics were focussed on during safety rounds in a number of work-places. The survey was performed via safety rounds and AMUS. Work-hygiene measurements are carried out as required.

AIM: "SINTEF will have a zero rate of injuries, accidents and losses"

Measures	Status 2014
<ol style="list-style-type: none"> 1. HSE campaigns in all laboratories and workshops. 2. Follow up the 'safety' topic from AMUS. 3. Hold the e-course '<i>HSE in the laboratory – introductory course</i>' for everyone who works in a laboratory or workshop. 4. Continue to focus on safety during field-work. 5. Make better use of Synergi system in preventive HSE efforts. 6. Raise the level of competence in risk assessment throughout the organisation. 7. Carry out follow-up project for high-level risk assessment in Oslo and Tiller. 8. Carry out emergency preparedness exercise (KL and institutes). 9. Describe the establishment and operation of the centre for families (of accident victims). 	<ol style="list-style-type: none"> 1. The campaign includes all staff and its aim is to reinforce SINTEF's culture of safety. To be carried out in 2015. 2. AMUS and the subject of safety are being followed up at local level. 3. Staff working in labs and workshops are continuously undergoing training. 4. Safety during fieldwork is the subject of continuous attention. This topic is included in the campaign to develop our safety culture. Suggestions involving the improvement of reporting of undesirable events have been adopted. 5. Managerial and departmental meetings now deal with reported events in order to learn from and share experiences. Case-handling and reporting practices have been improved. 6. Training in risk assessment is being implemented and risk assessments are required. 7. Implemented according to plan. 8. Implemented. 9. Routines for the family centre have been established.

AIM: SINTEF will be a company with a clear environmental profile"

Measures	Status 2014
<ol style="list-style-type: none"> 1. Adopt action plan for environmental management. 2. Continue efforts to meet the ISO 14001 environmental management standard. 3. Communicate SINTEF's efforts in the field of environmentally oriented research. 	<ol style="list-style-type: none"> 1. Action plans adopted by all institutes. 2. Several institutes certified in accordance with standard. 3. Communicated via dissemination of research and expertise within relevant milieux.

3 Results

SINTEF will maintain a safe work environment that promotes pleasure in work and good health among its employees. This ambition will be central to our work and to our decision-making processes. Clear, pro-active management and the involvement of staff are important for good HSE efforts.

SINTEF's general strategy was revised in 2014, and HSE was emphasised even more, which means that our level of ambition has been raised. This will inspire us to strengthen the development of our HSE efforts, which already go beyond satisfying laws, regulations and standards. We need to build up identity, pride and culture, which means that in the course of their daily work our colleagues will ensure that the ambitions of SINTEF's new general strategy are met.

3.1 Work Environment

The Work Environment Survey was carried out in January 2014. This time, the response rate was 92.5 per cent, with high scores obtained on important work environment factors such as motivation, pleasure in work and team

spirit. The high response rate is a measure of the involvement of our colleagues, and shows that most of us care about our work environment. This time, the survey also evaluated the effect of the introduction of new systems for project and knowledge management (SIPOK). These question elicited the poorest responses in the survey and a significant number of respondents used the free-text field to offer feedback. Management accepts its primary responsibility for these results, and will use the survey to improve the work environment in its groups and departments. Follow-up of the survey is resulting in important efforts to improve the work environment.

The Work Environment Committees (AMUs) contribute to the realisation of a fully responsible work environment. In SINTEF, the Foundation has an AMU, and the institutes that are legal entities have their own. The SINTEF Foundation's work environment committee resolved this year to set up sub-committees in the Foundation's four institutes, and a mandate for these was drawn up. The objective of this system is to ensure that the legal obligations of the AMUs are performed at local level and in

close proximity to those they concern. The institute safety representative system was established in 2013, and the safety representatives are members of their local sub-committees. The new system is in the process of being established, and will be in place in the course of 2015.

HSE training. Responsibility for staff training in HSE lies with line management, and in 2014 some effort was put into developing a system for supporting managerial staff in their work. We plan to establish a function in the personnel system to alert staff about which training courses they should take, the period of validity of the training given and who will be responsible for course documentation.

A range of e-learning tools has been introduced in order to ensure even better HSE training and information. These include 'HSE for Managers' and 'HSE in the laboratory – an introductory course'. Classroom teaching, which is offered in NTNU and the Trondheim Student Union, has continued as in previous years.

The safety representatives conference was held in October, with a good attendance of safety representatives, SINTEF Group directors and HSE personnel, and offered a content-filled programme. The role of the safety representatives was on the agenda, and the topic of safety received a good deal of attention. Participants worked in groups in which the topic was the role of the safety representative. The day-long meeting was a reminder of the importance of working under conditions of safety.

3.2 Staff conversations

Staff conversations are planned annual conversations between managers and staff. Topics emphasised include tasks and aims, the work environment and personal development. Each conversation concludes by drawing up a personal action plan. The rate of implementation in these conversations fell from 91 per cent in 2013 to 88 per cent in 2014.

Staff conversations in SINTEF, including companies in SINTEF Holding



3.3 Work-related health problems and sick leave

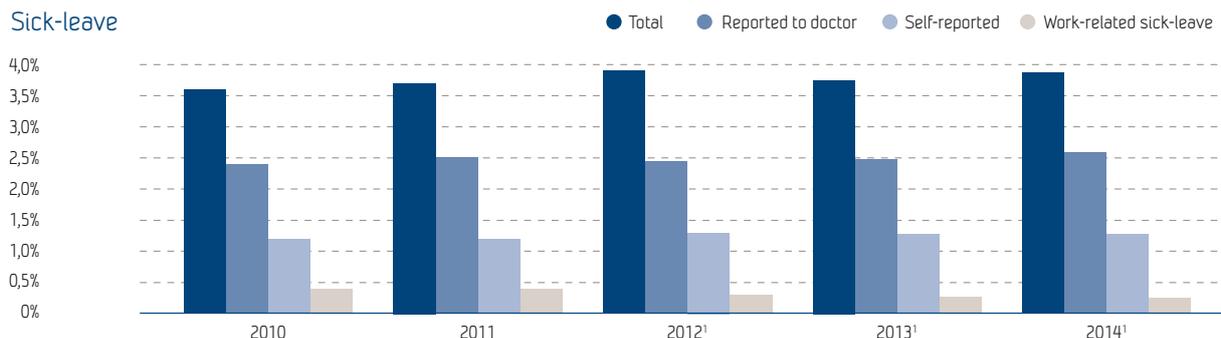
These are followed up systematically by SINTEF. We attempt to create a work environment that does not offer the risk of suffering physical or psychological injury. Our efforts are reflected in the demands made on our management and the way in which our work is organised. In accordance with our management principles, SINTEF is building a robust organisation in which our staff visible and given our full consideration.

Targeted health conversations are held with staff who are exposed to potentially unhealthy working conditions. The employees chosen for such conversation are selected via a cooperative process that involves the company health service and line management, and is based on an evaluation of the risks resulting from the employee's exposure situation.

The work environment in laboratories and workshops is surveyed by means of risk assessments and safety representative rounds. This is important as a means of preventing staff from being injured or suffering health problems. Events reported via the damage and deviations systems has shown that there is a need to strengthen the way that we organise risk assessment. We also survey ergonomic working conditions in order to prevent the development of skeletomuscular problems.

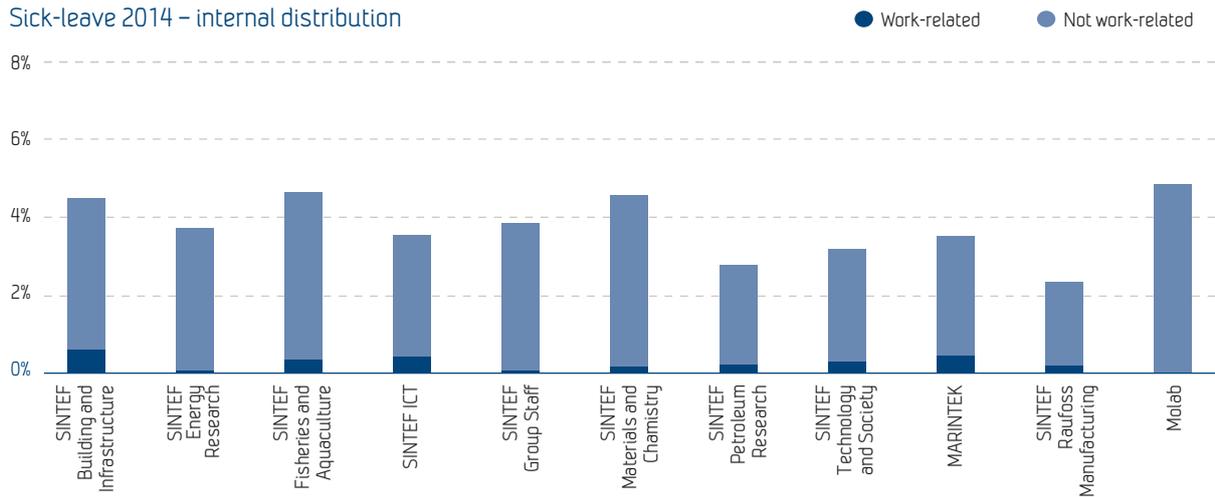
The rate of sick-leave in 2014 was 3.9 per cent as against 3.8 in 2013. Work-related sick-leave was stable at 0.3 per cent, the same as in 2013. SINTEF is an AI company, and all sick-leave is systematically followed up in order to identify the cause of absence from work. Managers, with the support of personnel staff, are primarily responsible for follow-up efforts. It is important that staff should perceive a realistic relationship between the demands made of them and their ability to perform their work.

Sick-leave



¹ SINTEF Group, plus companies in SINTEF Holding

Sick-leave 2014 - internal distribution



3.4 Safety

SINTEF has a clear vision of having zero accidents, injuries and losses, and the safety of our staff is our overriding concern. Our aim is to ensure that working at SINTEF will not damage the health of our employees.

On the background of the negative trend in personal and sick-leave injuries in 2013, a safety campaign for laboratories, workshops, fieldwork and professional travel was planned. The campaign aims to raise the sensation of responsibility among managers and give staff more awareness and knowledge, with the objective of encouraging individuals to pay adequate attention to safety issues in their everyday life. The campaign will be a priority task in 2015, and will encompass all our staff.

We are still keen to share experiences of fieldwork and travel, and in 2014 plans were drawn up to simplify reporting to the damage and deviance system by making it more accessible to employees who are working outside SINTEF itself.

In 2014, we followed up the measures taken after the overall risk assessment that had been carried out in SINTEF's buildings in Oslo. Some of these buildings are old, and strict requirements regarding decision support and risk assessments are needed.

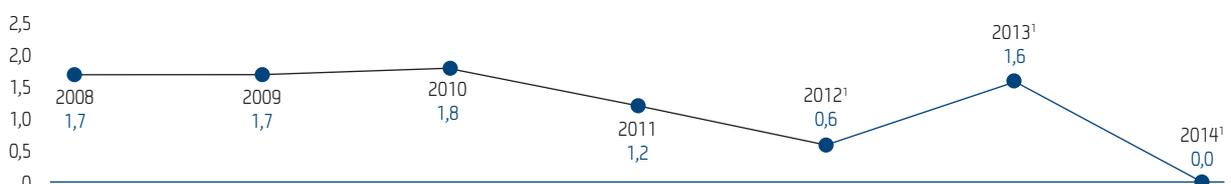
In 2014, we carried out an HSE audit in three institutes, covering HSE in projects. The audit showed that a great deal of good work is being done, but that the quality of risk assessments was variable, and that we need to make the tools used in the steering system more easily accessible.

3.5 Personal injuries

A zero rate of injury-related sick-leave (H1) was a milestone for SINTEF in 2014. This was the first time since registration of injury-related sick-leave was introduced that we achieved a zero H1 score. Six events led to staff requiring follow-up by medical personnel, giving an H2 score of 1.6. This is a clear decrease from 2013, and is an extremely positive development.

Frequency of injuries leading to sick leave (H1 value)

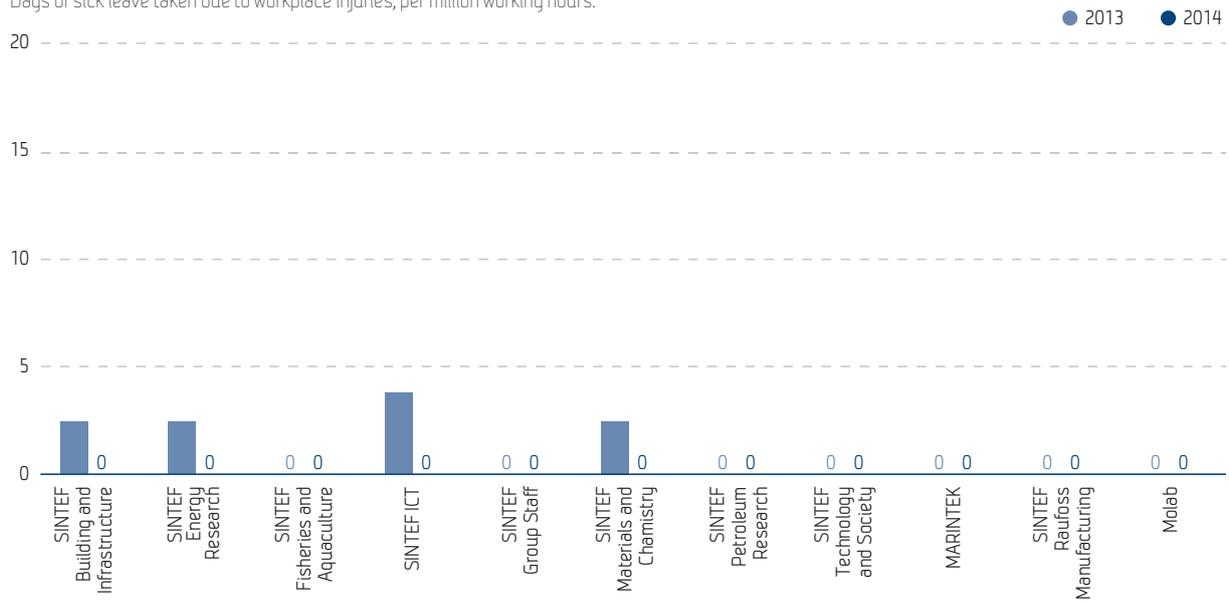
Number of injuries per million working hours



¹ SINTEF Group, plus companies in SINTEF Holding

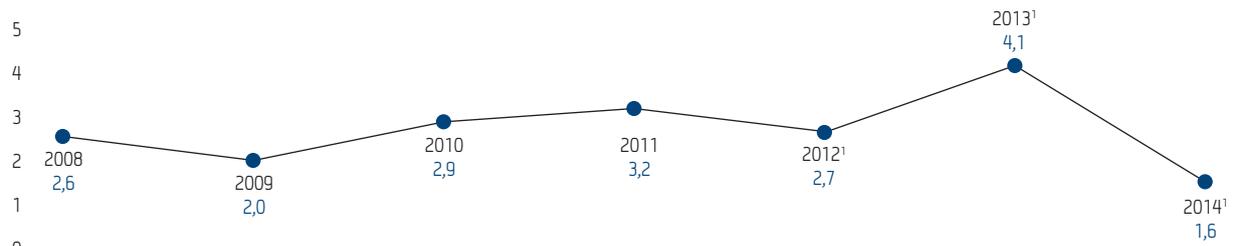
Frequency of sick leave (H1 value) internal distribution

Days of sick leave taken due to workplace injuries, per million working hours.



Frequency of personal injuries (H2 value)

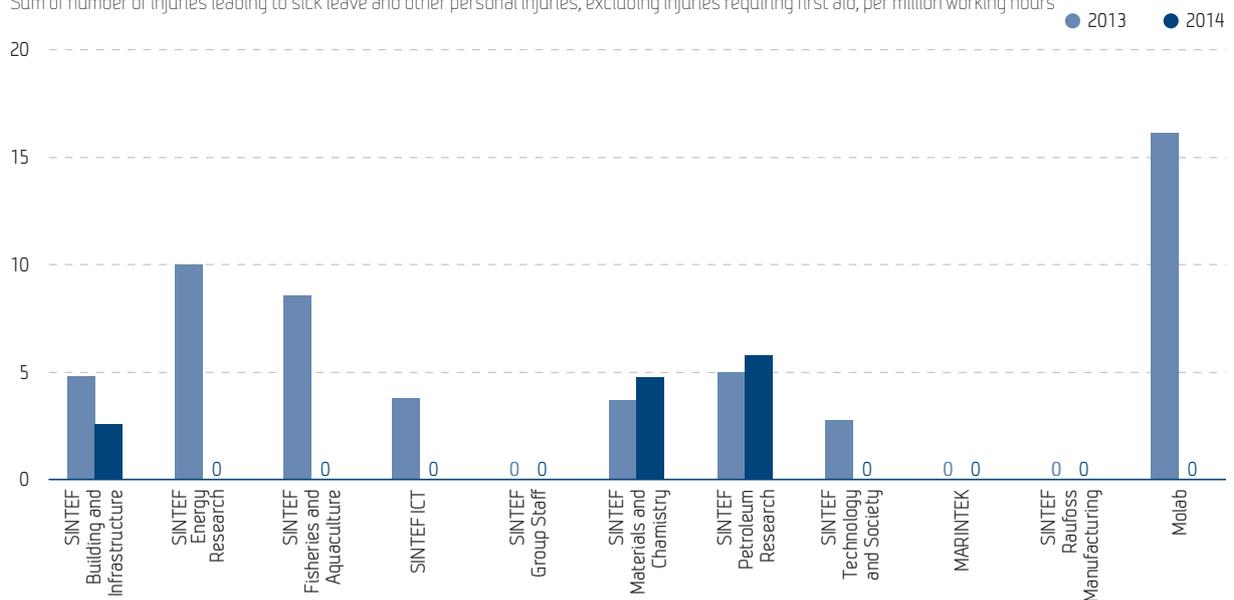
Sum of number of injuries leading to sick leave and other personal injuries, excluding injuries requiring first aid, per million working hours



¹ SINTEF Group, plus companies in SINTEF Holding

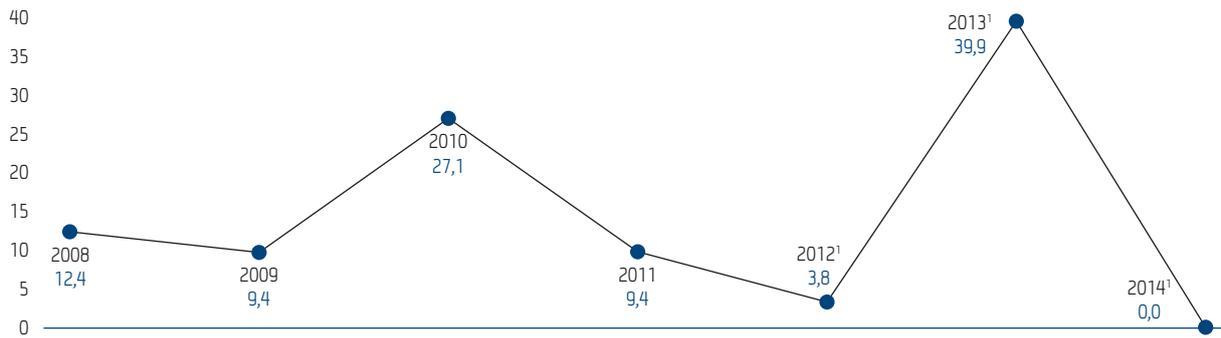
H2 - personal injuries - internal distribution

Sum of number of injuries leading to sick leave and other personal injuries, excluding injuries requiring first aid, per million working hours



Frequency of sick leave (F value)

Days of sick leave taken due to workplace injuries, per million working hours.



¹ SINTEF Group, plus companies in SINTEF Holding

3.6 HSE reports

SINTEF's reporting and deviations system enables line managers and case officers to follow up reports of deviations. Strengthening our safety culture is dependent on reports being made and followed up locally in the work environment concerned. Group management is following this topic closely, and there has been a positive trend in the handling and closing of cases. In 2014, 488 HSE reports were dealt with in Synergi, of which 427

were reports of hazardous conditions or observations, 39 were near-accidents and 32 were accidents. Preventive HSE efforts are a continuous process that must be prioritised in order to achieve our goal of zero injuries. The number of reports, and their distribution into accidents, near-accidents and hazardous conditions or observations, has not changed greatly during the past few years. We are working on strengthening the culture of report-based sharing of experience.

HSE reports per 100 work-years



¹ SINTEF Group, plus companies in SINTEF Holding

● Hazardous situations ● Near-accidents ● Accidents

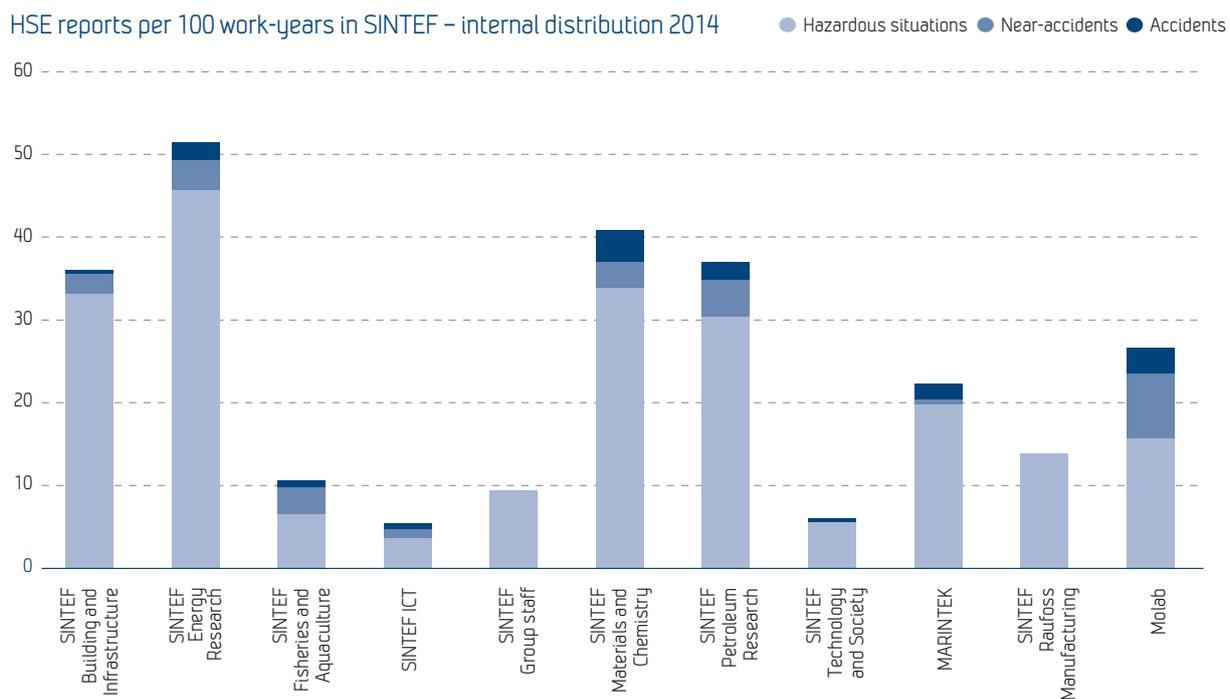
The following definitions are employed in reporting HSE events:

Accidents: Occurrences that have led to personal injury (including injuries require first-aid), illness and/or damage to or loss of property, damage to the environment or injury to a third party.

Near-accidents: Occurrences that under slightly different circumstances could have led to personal injury, illness and/or damage to or loss of property, damage to the environment or injury to a third party.

Hazardous conditions: Circumstances or conditions that could potentially lead to personal injury, illness and/or damage to or loss of property, damage to the environment or injury to a third party.

HSE reports per 100 work-years in SINTEF – internal distribution 2014



Degree of seriousness of accidents and near-accidents

All accidents and near-accidents in SINTEF are evaluated in terms of the risk of their potential consequences for persons, the environment and material values. Risk assess-

ments are performed and followed up by responsible units within the Group. The following matrix shows the number of accidents and near-accidents during the past five years in individual risk areas, based on risk potential.

Overview of areas of risk: 2010–2014

	2010	2011	2012	2013	2014
Critical area	12	5	10	11	8
Serious area	24	28	49	39	27
Less serious area	47	46	33	38	34
Sum	83	79	92	88	69

3.7 External environment

SINTEF's environmental policy brings its own set of obligations, and the Group aims to meet the ISO 14001 environmental management standard. Via systematic efforts to reduce stress on the environment, SINTEF accepts its environmental responsibilities and satisfies the expectations of its clients. Our efforts to meet the ISO standard also lead to greater environmental awareness among our staff. SINTEF has worked towards the establishment of a common environmental action plan, whose significant aspects include energy-efficient operation and the responsible treatment of waste. All of SINTEF's eight institutes have drawn up their own environment action plans, and several institutes are already certified in accordance with ISO 14001. In 2014, SINTEF Materials and Chemistry and SINTEF Building Research were certified. SINTEF ICT has won certification for its department at MiNaLab, and has initiated the certification process for the whole institute in 2015.

In 2014, there were no reportable incidents that affected the physical environment.

Our most important contribution to the environment is our programme of internationally leading R & D in renewable energy, climate and environmental technology. These areas are being further developed as key areas of special effort in our new general strategy. Our efforts on behalf of the environment are actively communicated externally via dissemination of our research and expertise in the environmental field.

3.8 Emergency preparedness

SINTEF's emergency preparedness is effectuated according to the principles of responsibility, equality, closeness and cooperation.

In 2014, three events were dealt with by the preparedness organisation, and our agreement with the Norwegian Seamen's Church was useful in connection with following up employees from other countries.

One of the most important means of promoting emergency preparedness is the performance of preparedness exercises. All of our institutes held such exercises in 2014. Where relevant, we collaborate with NTNU. The experience gained from joint exercises with NTNU was incorporated into each institution's emergency preparedness plans. A 'preparedness day' was also arranged for managerial staff, at which the revised plan for dealing with families in the wake of emergency situations was presented, and the appendix to SINTEF's preparedness plan for coordination with NTNU was discussed. Representatives of NTNU were present at the gathering.

SINTEF requires all its employees to book all their professional trips through our travel agency agreement, which means that in the case of accident or other undesirable event, all our emergency preparedness managers have access to lists of the employees at the location involved. This provides us with rapid information and the means of providing help to those involved.

4 SINTEF's HSE plan for 2015

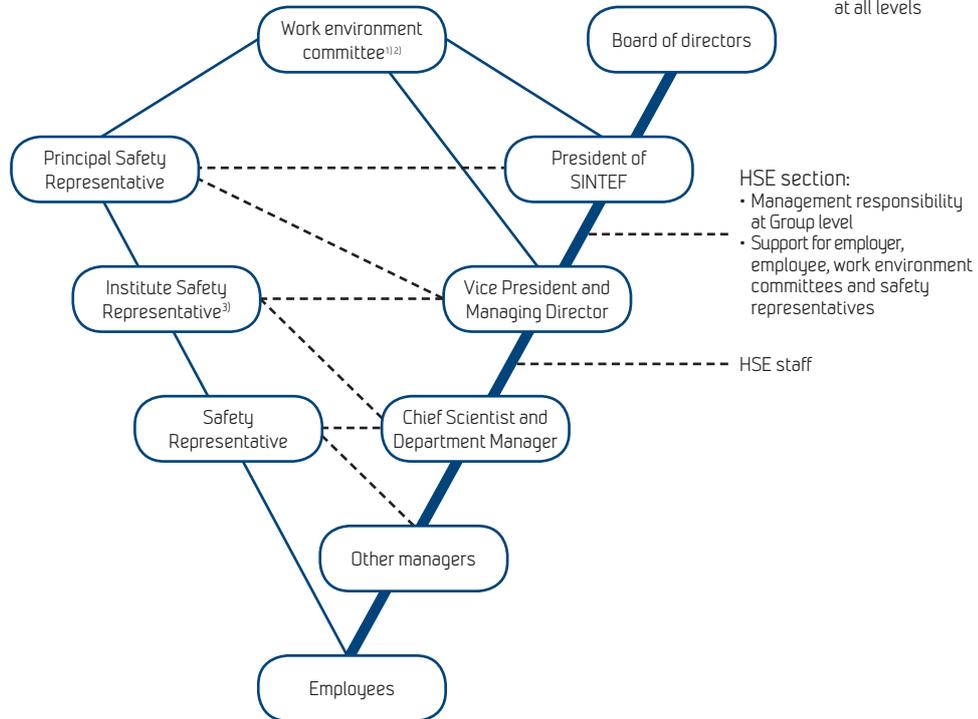
Aims	Measures
SINTEF will maintain a good work environment that promotes good health.	<ul style="list-style-type: none"> • Follow up the 2014 Work Environment Survey. • Continue personal development of managerial staff, including compulsory HSE training. • Make systematic efforts to follow up sick-leave. • SINTEF Open Day.
SINTEF will have a zero rate of work-related sick-leave.	<ul style="list-style-type: none"> • Prevent health problems due to working conditions. • Improve mapping of physical work environment. • Create a good balance between demands and possibilities to perform assigned tasks.
SINTEF will have a zero rates of injuries, accidents and losses.	<ul style="list-style-type: none"> • Design and implement campaign to develop safety culture among all staff. • Continue focus on safety during fieldwork. • Raise level of expertise in risk assessment. • Continue development of Synergi.
SINTEF will be a company with a clear environmental profile.	<ul style="list-style-type: none"> • Approve and follow up environmental management action plan. • Revise SINTEF's environmental policy. • Continue process of meeting criteria for ISO 14000 environmental management standard.

These measures will be followed up via individual action plans.

5 Responsibilities and roles in SINTEF's HSE efforts

Appeal-line
intended to ensure that the employer observes its responsibility for HSE

Responsibility line
HSE is a management responsibility at all levels



Individual employees are obliged to participate.

¹⁾ As legal entities, the companies have their own work environment committees.

²⁾ Each of the Foundation's institutes has its own work environment committee.

³⁾ Refers to the SINTEF Foundation.