



HSE ANNUAL REPORT 2019

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At SINTEF, HSE issues are assigned the highest priority. This means ensuring that the working environment is both safe and serves to promote employees' personal development, job satisfaction and good health. SINTEF is working systematically to ensure our employees' safety and to safeguard their working environment. Our aim is to make sure that our HSE standards are in accordance with SINTEF's overall strategy, policy and objectives on HSE issues.

SINTEF's main strategy defines four general objectives for HSE-related work.

- We shall maintain a sound and health-promoting working environment
 - We shall achieve zero occupational sickness absence
 - We shall incur zero levels of accident, injury, damage and loss
 - We shall operate with a clear environmental profile
- HSE-related work is planned and implemented with the aim of achieving continuous improvement in SINTEF's overall HSE performance. To measure this improvement, SINTEF uses indicators that are directly related to its overall objectives.

HSE goals achieved in 2019:	Goal	Achievement
Performance appraisal interviews (%)	100	97
Sick-leave (%)	< 3,5	3,3
Work-related sick-leave (%) (self-reported work-related health problems)	0	0,3
H1 – rate of injury-related absence from work (number of personal injuries requiring absence, per million hours worked)	0	1,7
H2 – rate of personal injuries ¹⁾ (number of personal injuries, per million hours worked)	0	4,2
Rate of absence from work (number of days off work per million hours worked)	0	12
Critical risk potential of events (number of potentially critical events per million hours worked)	0	7,3
Reports from fieldwork and travel (number per million hours worked)	> 8	9
Accidents leading to damage to the external environment	0	0
Degree of sorting of waste ²⁾ (%)	> 60	Trondheim: 47 Oslo: 29
Reduction in energy consumption ³⁾ (%)	> 15	9,2 ⁴⁾
Reduction in travel activity (%) (kg. CO ₂ emissions per year worked) ⁵⁾	> 5	increased by 42

¹⁾ Excluding first-aid injuries ³⁾ in SINTEF's buildings by the end of 2021 compared with 2017 ⁴⁾ Estimated reduction
²⁾ in SINTEF's buildings ⁵⁾ From domestic flights, compared to 2018

SINTEF has received certification according to the standards ISO 9001:2015 (Quality management systems), ISO 14001:2015 (Environmental management systems) and OHSAS 18001:2007 (Occupational Health and Safety Management Assessment Systems). Re-certification was carried out in October 2019 and included a transition from the OHSAS 18001 to the ISO 45001:2018 standard. New certificates were received in February 2020.



HEALTH AND THE WORKING ENVIRONMENT

SINTEF's aim is to be an attractive workplace offering unique opportunities for personal development.

The results of our working environment surveys indicate that overall, SINTEF is a good place to work. People enjoy working at SINTEF and are proud of their employer. They deliver high scores on management issues, both in relation to projects and organisationally. The work to follow up the results of the working environment survey carried out in 2018 has continued during 2019 by means of a priority list of action plans.

From 2020, working environment surveys will be carried out annually. The new survey is more compact and more clearly focused on evaluating employees' psychosocial working environment.

The survey conducted in January 2020 attracted an excellent response rate (94 %). Highly satisfactory progress was recorded on key issues such as motivation, job satisfaction, belief in the future and team spirit. SINTEF scores higher in these aspects than other research institutes that employ the same survey. Many research groups that had identified challenges during the previous survey have recorded improvements, showing that efforts to enhance their working environments have been rewarded. Not everyone at SINTEF is equally pleased, but less variation was recorded than in the previous survey. This is a consequence of the hard work that has been carried out to develop the working environment at SINTEF gradually over time. Factors that are identified as the most

challenging, and which must be assigned priority in the future, are workload and stress. However, SINTEF scores significantly better than the majority of other research institutes on these issues.

The results of this annual survey are disseminated to the organisation very rapidly and are used as a basis for discussion and the subsequent implementation of binding action plans for further improvements to the working environment.

Training in HSE-related topics is key, and forms the foundation for SINTEF's development as a safe and healthy workplace. In 2019, we introduced two new training programmes for managers (*Lederplattformen*) and, in particular, Project Managers (*Prosjektlederopplæringen*). Both have involved considerable work to clarify and revise their HSE content. In addition to these pivotal courses, the institutes also provide local training modules with the aim of promoting safe working practices in our laboratories and workshops.

Employee appraisal interviews are held annually. In 2018, a new appraisal tool was introduced. After a relatively low implementation rate (76 %) in 2018, the rate of use increased to 97% in 2019. All managers at SINTEF have undergone a training module as part of the aforementioned *Lederplattformen* programme that includes a focus on the effective implementation of employee appraisals.

SAFETY

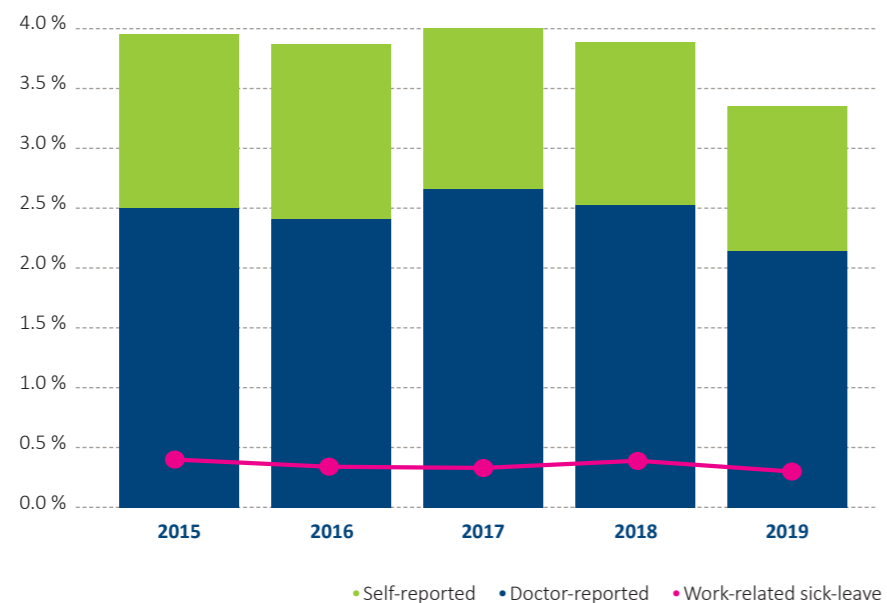
Performance appraisal interviews %



OCCUPATIONAL HEALTH PROBLEMS AND SICKNESS ABSENCE

In 2019, sickness absence at SINTEF was recorded at 3.3 %¹, indicating that we have achieved our target of recording less than 3.5%. Occupational sickness absence was recorded at 0.3 %. All sickness absence is monitored systematically by all institutes at SINTEF and the management of occupational sickness absence is afforded special focus. We achieve this on the one hand by maintaining close contact with employees who are off sick, and on the other by the effective application of preventive management principles.

Sick-leave



SINTEF's occupational health service provider carries out regular targeted health interviews with employees who may be vulnerable to exposure to harmful substances or radiation in their working environments. In 2019, a new tool was introduced to facilitate the selection of employees for interview. The interviews, which are conducted every three years, constitute a risk-based assessment of potential harmful exposure of employees in their day-to-day work. Some employees are also monitored in the period between interviews.

¹ New calculation methodology introduced in 2019 based on guidelines issued by Statistics Norway.

In 2017, Group Management decided to implement an HSE campaign (*HMS-løft*) focusing on four selected areas for improvement:

- Technical safety, regulation and orderliness
- Clear safety management practices
- Greater levels of risk and barrier-related awareness
- Employee responsibility

The objective was to reduce the number of personal injuries and to achieve lasting change in terms of employee conduct in laboratories and workshops. The target group for this campaign, which continued in 2018 and 2019, has comprised all managers and employees at SINTEF. The institutes have been working effectively to monitor progress, and their work has resulted in a major effort to achieve a more regulated approach, better attitudes towards equipment maintenance, and increased awareness among managers.

SINTEF uses a large variety of different chemicals in its research activities, and many recorded unwanted incidents are related to chemicals use. In 2019, an internal survey was carried out to investigate the life cycle of chemicals within the organisation. The results have provided input to improvement work that will form the basis for new initiatives for implementation in 2020.

SINTEF is preparing a series of HSE "one-pagers" with the aim of incentivising employees to report incidents and to share their experiences following serious incidents. An HSE one-pager contains a brief description of the incident, including causes and lessons learned. The one-pagers are disseminated throughout the organisation and are used as documentation in many situations such as management meetings, departmental meetings, WEC meetings and external meetings.

We share several premises with NTNU and recognise the need to maintain effective collaboration on safety issues. Work is currently ongoing to consolidate coordination activities with NTNU, with particular focus on experience sharing following incidents. In 2019, consensus was achieved on a new joint coordination agreement template that simplifies follow-up procedures and clarifies the requirements linked to the collaboration.

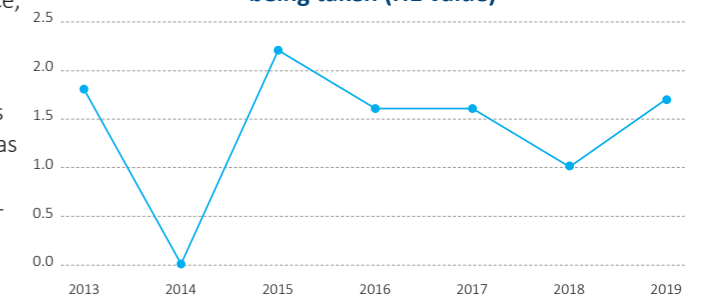
PERSONAL INJURIES

SINTEF's goal is to achieve zero personal injuries. Continuous and targeted work is being carried out to devise measures to prevent employees from incurring personal injuries in the workplace.

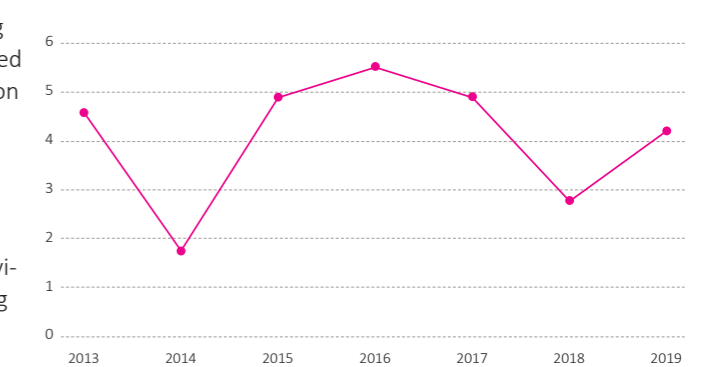
In 2019, 35 personal injuries were recorded, of which 12 required medical treatment and 23 were first aid injuries. Five injuries resulted in absence from work for a total



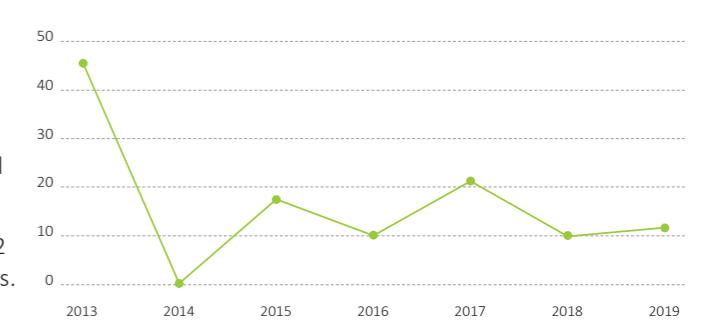
Frequency of injuries leading to sick-leave being taken (H1 value)



Frequency of personal injuries (H2 value)



Frequency of absence from work (F-value)



of 35 days, giving a sick leave frequency of 12. Injuries resulting in sick leave (H1) and personal injury frequency (H2) were 1.7 and 4.2 respectively. None of the personal injuries were serious, but we see an increase from 2018 when the total number was 24.

HSE NOTIFICATIONS

All notified HSE incidents are reported weekly to Group Management. 2019 saw an increase in recorded accidents and near misses compared with 2018, and a small decrease in the number of reported hazardous situations. Of a total of approx. 600 HSE-related notifications, 50 were categorised as accidents and 58 as near misses. The 2019 total of 495 reported hazardous situations/observations represents 27 per 100 FTE years. This is a small decrease on 2018, when the total number was 29 per 100 FTE year. We are not pleased with this trend. Work is ongoing to devise measures to boost the number of reported hazardous situations/observations because this is key to improving our efforts to reduce accidents. An evaluation of HSE-related incidents shows that it is important to prioritise work focusing on the handling of chemicals and the careful use of equipment. In the opinion of the institutes, greater efforts must be made in terms of training and to increase awareness of the risk potential associated with work tasks.



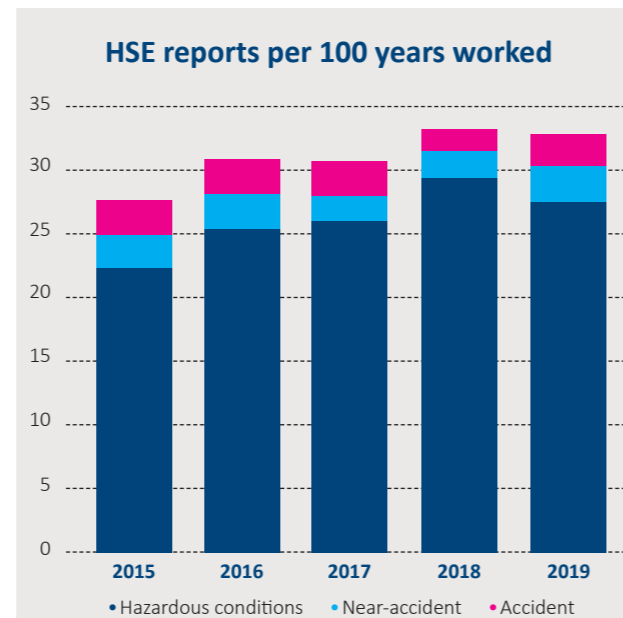
Photo: Geir Mogen

EMERGENCY PREPAREDNESS AND RESPONSE

In 2019 an incident occurred that required the mobilisation of SINTEF's emergency response organisation. The mobilisation threshold has been lowered in order to ensure effective coordination in the event of less serious incidents and at the same time to take the opportunity to provide crisis management training. We have obtained excellent experience from this during 2019.

All institutes carried out planned contingency exercises during 2019 and a day was set aside for Group Management to focus on contingency issues.

SINTEF participated in the Nordlys military exercise together with NTNU and the Norwegian police.



Accident: An event that has led to injury (including injuries requiring first-aid), illness and/or damage to/loss of fixed assets, damage to the environment or to a third party.

Near-accident: An event that under slightly different conditions could have led to injury, illness and/or damage to/loss of fixed assets, damage to the environment or to a third party.

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

ETHICS

Ethics constitutes an integral part of SINTEF's strategy, and ethical issues impact on all employees at SINTEF.

The four training modules in ethics offered by the SINTEF School were extended during 2019: (1) a module in research methods, (2) a new module for Project Managers, (3) an ethics module forming part of the aforementioned "Lederplattformer" management course, and (4) an ethics course incorporated into the module for effective management (*God ledelse i SINTEF*). A plan for an e-learning module in ethics has been launched and will be developed during 2020.

A new whistleblowing procedure (*Rutine for intern varsling i SINTEF*) has been prepared in accordance with amendments

made to the Norwegian Working Environment Act that came into force in 2017 and 2019. The new procedure describes specific blameworthy circumstances that constitute valid criteria for whistleblowing, how whistleblowers should proceed and how a whistleblower should be treated.

There is increasing interest in ethics and the discussion of ethical dilemmas linked to research activities at SINTEF. In 2019, SINTEF managers have held regular and preplanned discussions on a number of ethical dilemmas and challenging ethical issues.



Photo: SINTEF/Geir Mogen

THE EXTERNAL ENVIRONMENT

SINTEF's policy in relation to the external environment places demands on the ways in which we administer our buildings and carry on our research activities. By working systematically to reduce our impact on the environment, SINTEF is assuming environmental responsibility in line with our vision of "Technology for a better society", as well as meeting the expectations of our clients. SINTEF obtained re-certification under the ISO 14001 standard in 2019.

The organisation demonstrates an excellent commitment to the external environment and the UN's sustainability goals. In particular, we are focusing awareness on our day-to-day operations and the ways in which we can mitigate the negative impacts on the environment that may result from such activities. SINTEF's action plan includes initiatives to promote energy-efficient operations and better waste disposal management. As part of this work, we have decided to phase out single-use plastic products in our canteens.

Work has been carried out in 2019 to calculate travel statistics as a basis for generating awareness and targets in connection with the need to reduce CO₂ emissions resulting from travel on the part of SINTEF employees. We are also working continuously to install high-quality videoconferencing

equipment and other digital systems that can help towards reducing the need for some types of meetings-related travel. However, SINTEF failed to achieve its 2019 target to reduce CO₂ emissions from domestic air travel. Sharing the organisation's 2019 travel-related emissions data will incentivise all departments to continue to work more systematically to reduce such emissions. SINTEF intends to become a more cycle-friendly workplace, and further wishes to enable more employees to cycle to and from work.

SINTEF's most important contributions to the environment are our world-leading research projects and activities to reduce the emissions and develop technologies that promote renewable energy and climate change mitigation and adaptation.

SINTEF is currently preparing a separate sustainability report for 2019. It will be published in June 2020 and will provide an expanded discussion on SINTEF's positive and negative contributions to wider society. The report will highlight the organisation's contribution in terms of research, as well as its environmental footprint.

In 2019, SINTEF experienced no reportable incidents that impacted on the external environment.

SINTEF'S HSE ACTION PLAN FOR 2020

The 2020 action plan shall support the following overall HSE objectives:

SINTEF shall operate with a sound and health-promoting working environment

SINTEF shall achieve zero levels of occupational sickness absence

SINTEF shall incur zero levels of accident, injury, damage and loss

SINTEF shall operate with clear environmental profile

SUBSIDIARY OBJECTIVES/KPI 2020	ACTIONS
<ul style="list-style-type: none">• Completion rate for employee appraisals = 100 %• Sickness absence rate < 3.5 %• Occupational sickness absence = 0 %• H1 – injuries resulting in sick leave (number of personal injuries involving absence per million working hours) = 0• H2 – personal injury frequency (number of personal injuries per million working hours) = 0*• Sick leave frequency (number of days of absence per million working hours) = 0• Critical risk potential of incidents (number of potentially critical incidents per million working hours) = 0• Reports from field work and travel (number per million working hours) > 8• Accidents involving harm to the external environment = 0• Degree of sorting of waste generated by SINTEF's buildings > 60 %• To reduce energy consumption in SINTEF's buildings by >15 % by the end of 2021 (compared with 2017)• To reduce travel by employees > 5 % compared with kg CO₂ emissions per FTE year in 2018 ** <p>* exclusive of injuries requiring first aid ** domestic air travel</p>	<ul style="list-style-type: none">• Working environment survey 2020• Internal audits• Implement measures linked to the defined area of focus "handling of chemicals"• Continue with the HSE campaign (<i>HMS-løftet</i>) focusing on regulation and orderliness• Subcontractor audits• Incentivise the reporting of accidents, near misses and hazardous situations/observations• Hold a "cycling day" event• Phase out single-use plastics in canteens• Require sustainable products from our suppliers• Install videoconferencing equipment in more meeting rooms• Use digital meeting interfaces, such as Skype, Teams, etc.• Use travel statistics to heighten awareness• Include sustainability indicators in governance information supplied to Group Management• Incorporate the flagging of projects in relation to the UN's sustainability goals• Separate sustainability reporting