## Senseair

### AsahiKASEI

### Sustainability Report 2022



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### Introduction

This is Senseair AB's first sustainability report. It has been drawn up in accordance with the regulations in the Swedish annual reports act (ÅRL chapter 6). Senseair's board has the responsibility for our sustainability reporting and the focus areas specified in the sustainability report.

The purpose of the report is to give Senseair's stakeholders a transparent picture of our sustainability work.



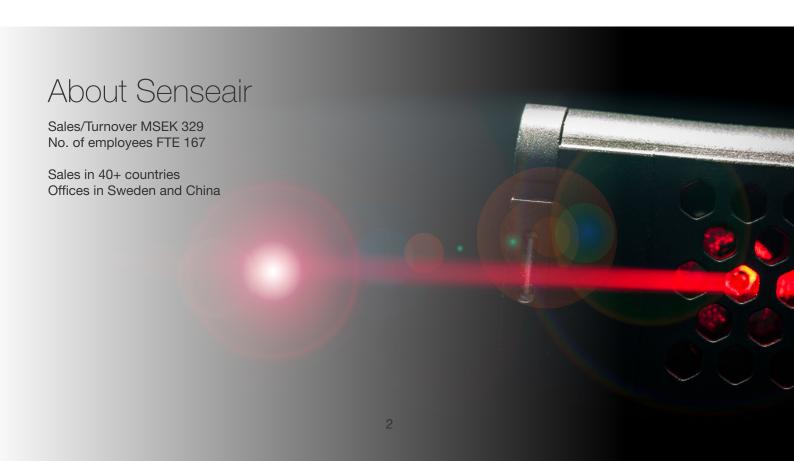
### CEO Message

Since our establishment in 1989, Senseair has been pursuing "making sense of air" by providing the best possible measurement solutions, services and intelligence for various applications within gas measurement with non-dispersive infrared (NDIR) technology. In 2018, Senseair has joined Asahi Kasei Group, a Japanese conglomerate. Since then, we have shared business goals and have strived for expanding business value under the same Group Mission.

Asahi Kasei Group Mission, "We, the Asahi Kasei Group, contribute to life and living for people around the world" is our unchanging reason for being though the needs of society change throughout the ages. Under this Group Mission, Senseair has a vision to be an innovative solution company that contributes to safe and comfortable lives in the world.

Considering current global business environment which is getting more complexed and uncertain, we firmly keep our never changing philosophy and competence. Further, we keep challenging for a breakthrough of the company. As the most important prerequisite, we will continue to contribute to a sustainable society while ensuring safety and quality, compliance, corporate governance and respect for human rights.

- Hiroyuki Tanaka, Managing Director

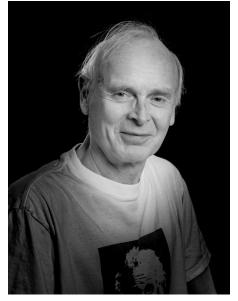


### Our History

Senseair was founded in 1989 by Prof. Hans Martin. What started out as a small business that allowed him to be closer to his family in Delsbo, Sweden has grown to become a leading global provider of air and gas sensing technology. Over the course of over 30 years, the company has yielded countless sensors, patents and jobs.

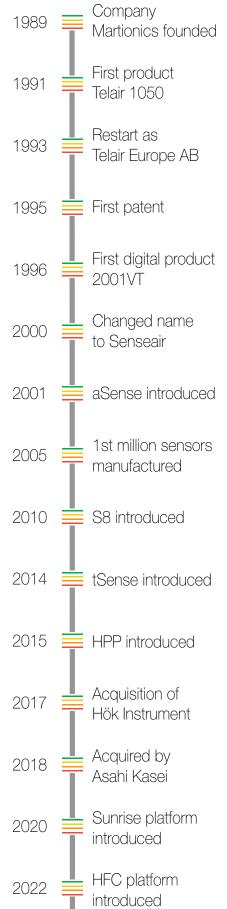
We started out by mainly producing  $\mathrm{CO}_2$  sensors. Being a vital part of the life cycle, we saw there was a great demand of  $\mathrm{CO}_2$  sensors within different applications. Eventually we began manufacturing other types of sensors as well, for measuring refrigerants, methane, alcohol and so on, and a major breakthrough in our business happened when we decided to branch out into the field of breathalyzers and alcohol interlocks.

An acquisition of Västerås-based Hök Instrument AB in 2017 brought with it the competence needed to grow in that field, and our participation in the DADDS project, funded by the US government, has given us the financial capabilities.



Prof. Hans Martin

Senseair has always strived to be an independent company, and has managed to remain independent despite a contract of close cooperation with Asahi Kasei Microdevices in 2016, which culminated in the latter acquiring Senseair two years later. The relationship has been mutually beneficial, however, with Senseair providing design expertise and good experience, while at the same time receiving funding, components and competence from Asahi Kasei.



### Code of conduct

As a member company of Asahi Kasei Group, Senseair follows the Code of Conduct of Asahi Kasei. Not only the global version of Code of Conduct, but we also provide a Swedish version for local employees.

The Swedish version of Code of Conduct is available in the intranet for all employees at Senseair.

We continuously provide training for new employees at Senseair. We work steadily to raise awareness through training and promote actions that are based on a strong sense of ethics.



Asahi Kasei Code of Conduct (.pdf)

https://www.asahi-kasei.com/sustainability/governance/compliance/pdf/code\_of\_conduct.pdf

### Our Products Innovation Senseair is a leading global We help leading OEMs develop provider of gas sensing technology. state-of-the-art solutions that are well integrated into their product Our purpose is to make sense of air by providing the best offerings as well as Sensor inCase possible measurement solutions, solutions for indoor and outdoor services, and intelligence for air quality, alcohol detection,

various applications within gas measurement. With over 30 years of experience, Senseair has become the centre of excellence in the field of non-dispersive infra-red (NDIR) technology.

Senseair develops and produces the smallest and most cost-efficient high-precision, low-power sensors for high-volume production.

alarms, automotive, and industrial applications.

About one third of the Senseair manpower is dedicated to highly scientific R&D as well as advanced Production Technique, always aiming to apply the newest technologies on the market to our products. Senseair holds more than 50 patents relating to its proprietary measurement technique.

### The problem – Carbon Dioxide

All of Senseair's products contribute to a more sustainable society. They save energy, prevent alcohol related accidents on the road, and warn if there is a leakage of dangerous gases.

Our CO<sub>2</sub> products are both economically and environmentally sustainable. The long lifespan makes the cost of purchase negligible. The low energy consumption makes our products inexpensive to run, which saves money in the long run aside from the fact that it is better for the environment.

When the indoor air quality gets better, productivity increases, and bad decisions, sick leave, and accidents decrease, which increases the profitability of businesses. In a school environment, good indoor air leads to higher grades and lower absence. We spend 90% of our time in different indoor environments, and the Covid-19 pandemic proved to us the importance of good indoor air since viruses spread more easily in poorly ventilated spaces. Aside from various health benefits, maintenance costs decrease as well, which makes our CO<sub>2</sub> sensors a profitable investment.

Outdoor air can also be measured, for instance in order to understand global warming and curb it. CO<sub>2</sub> levels in outdoor air before the industrial age did not exceed 300 ppm, but 2013 it exceeded 400 ppm, the result of years of burning oil and coal, among other things.

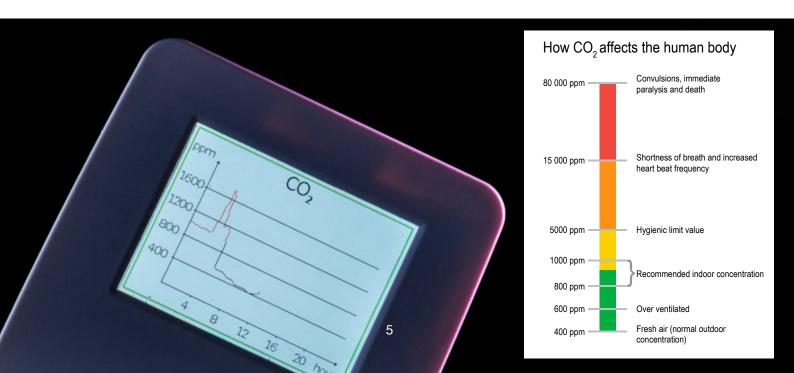
Air pollution caused seven million deaths in 2012, and 300,000 people are estimated to die prematurely every year in Europe alone.

The total cost is estimated to be upwards of 1.5 trillion US dollars. Even if efforts are made to improve air quality, large-scale measuring is needed to ensure efforts are being complied with, and to make politicians aware of the situation.

Our products have many fields of application. For example, they can also alert about gas leaks. Not only can leakages be expensive, but they can even be lethal since certain gases may cause suffocation and poisoning. In applications dependent on gas, disturbances can be caused by leakages, which can get costly and constitute life-threatening danger, e.g. an unnoticed gas leakage in a ship's lifeboats. Aside from the environment and possible economic gains, human lives are saved.

Another field of application is the cultivation and transport of fruits, vegetables and other produce. Photosynthesis converts CO<sub>2</sub> and water to energy, and in greenhouses the CO<sub>2</sub> levels have to be controlled through ventilation or generation of CO<sub>2</sub> to achieve the best result in cultivation. The transport of fruit must take place during strictly controlled conditions to prevent decomposition, which leads to food waste and economic losses.

There are also different health applications. For example, an anaesthetist measures the patient's exhalated air to see how far they have come in their anaesthesia. The progress of a treatment can also be measured with CO<sub>2</sub>. Aside from that, CO<sub>2</sub> can stimulate breathing after apnoea, destroy warts through freezing, and cure bronchial spasms, among many other fields of application. Our solution ensures CO<sub>2</sub> can be measured without breaching the patient's integrity, aside from saving human lives.



#### The solution - NDIR

A non-dispersive infrared (NDIR) sensor has a detector that measures how much infrared light of a specific wavelength is absorbed by the surrounding air. This measurement is then used to calculate the concentration of a specific gas.

Compared to electrochemical sensors, the lifespan of the NDIR sensor is lengthy. This is mostly because NDIR sensors have no sensor burn-out, nor any sensor deterioration upon exposure to gases. Furthermore, the interference from other gases in the measurements is minimal to zero for NDIR sensors, depending on which gas is to be measured.

In regard to semiconductor sensors, they perform best in higher concentrations (2,000 – 10,000 ppm) and are cross-sensitive to humidity and temperature fluctuations.

The semiconductor sensors can deteriorate as non-target gases may be absorbed by the oxide surface. For the gases where NDIR-sensors can measure the concentration, the sensors have none of these problems and work well for all concentrations of the target gas.

Altogether, the major advantages of NDIR sensors are low life-cycle cost and a precise and stable long-term operation.



### HFC Sensors

Refrigerant sensors are the newest addition to our product roster and still only constitutes a small sector of it.

Due to health risks and increased awareness over the environmental effect, they are subject to increasingly stringent restrictions which even include outright bans on certain refrigerants. In the United States and some other parts of the world, air conditioners are required to be fitted with refrigerant leakage detectors. This is where Senseair has an important role to fill in regards to HVAC/R applications.

Our first refrigerant sensor, the A2L, was launched at the 2019 AHR expo in Atlanta, United States, and we have since followed it up with the R32. It is our most ultra-low power refrigerant sensor to date, using our tried-and-true trademark technologies like Automated Baseline Correction (ABC), which lets you mount the sensor to the wall, forget it for 15 years, come back, and still have an accurate reading. The LED light source emits no heat and is thus safe to use near flammable refrigerants. All of this while complying with IEC and UL standards.





### Alco Sensors

Our other big field of application is to measure alcohol in exhaled air. Drunk driving is one of the largest factors behind accidents and deaths in traffic, and probably the one that most easily can be prevented.

Aside from personal self-discipline, preventive measures can greatly reduce or even eliminate drunk driving. Our solution has been implemented by haulage contractors

and public transport companies and may eventually become mandatory in personal vehicles.

It is power-efficient, which saves money and energy, and works more effectively than already existing alcohol sensors in that it measures the exhaled air faster, which enables more people to get tested in one go and increases profit, but most importantly it saves lives.

### Quality assurance

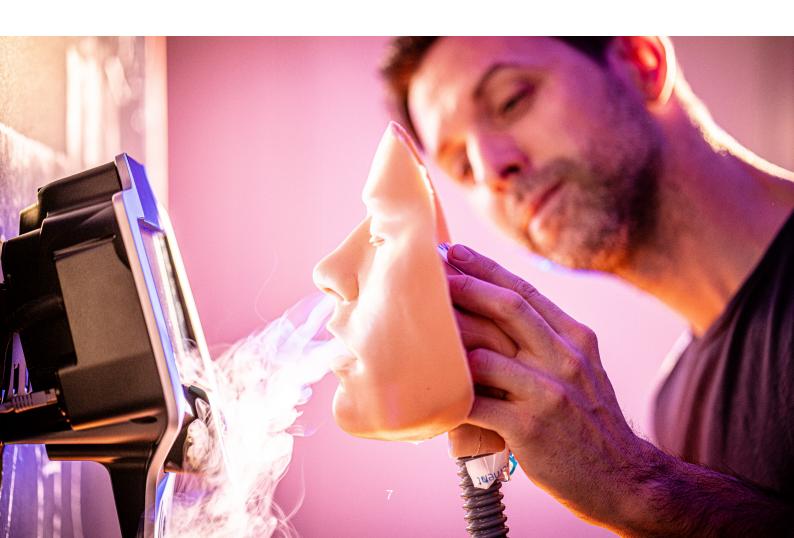
Senseair products are produced under rigorous manufacturing standards, calibration and testing processes. Our company is certified by DNV (Det Norske Veritas) to ISO 9001 and ISO 14001. Furthermore, we have UL certification for products where customers require it. Our products are the benchmark for the industry for accuracy, longevity, power consumption and quality.

Senseair also fulfils the stringent Swedish regulation for Environmental and Health and Safety requirements. We are regularly monitored and audited to ensure compliance.



### Senseair's Quality Policy

- · We shall fulfil agreed requirements, responsibilities and time plans
- We shall sell, design, manufacture and supply products and services which meet or exceed our stakeholders' expectations
- We shall take responsibility for the support and product maintenance in a way that we are always perceived to be a reliable supplier
- We shall comply with laws and regulatory requirements that apply to our products and our company
- In our work we shall continuously improve our products and quality management system



### Environment

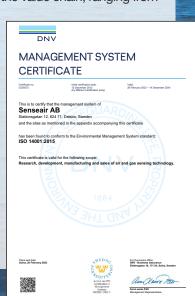
### EMS description/Certificate

Senseair promotes sustainable development by identifying, measuring, and reporting the environmental impact caused by its activities. Senseair's aspiration is to consider the environmental impact throughout the value chain, ranging from

the development, procurement of raw materials to production, distribution, and recycling possibilities.

Since 2010 our whole operation has been part of a certified ISO 14001-compliant environmental management system. The utilization rate of all input components and materials is optimized to ensure the efficient use of resources and decrease the amount of waste created.

Waste materials are recycled to a very high degree.





### Reduce carbon footprint

Senseair commits to reducing its carbon footprint. We are committed to establishing a baseline for Scope 1 & 2 carbon footprint for 2022.

As a globally operating company, employees' business travel is necessary, while the company seeks to reduce it, for example, by utilizing the possibilities of the latest technology and by favoring virtual meetings. The travel practice always guides the employees to choose the most environmentally friendly alternative for travel and meetings. The company's updated travel policy favors local travel by train and low-emission cars, such as Electric Vehicles (EV) and hybrid models.

Employees are able to work remotely or from home. As a result, emissions from commuting are decreasing.

#### Permits

Senseair AB develops sensors for detection of refrigerants. For calibration of these the refrigerant gas R-32 is used. The gas is released after the calibration. R-32 is a fluorinated greenhouse gas with a GWP factor of 675. Due to increased market demands for sensors for detecting leaks in refrigeration systems we foresee a gradual increase in R-32 emissions as production grows.

Senseair AB has a special permit from the Municipality of Hudiksvall for limited emission of the refrigerant R-32 for calibration of sensors.

In order to reduce emissions as much as possible we limit the amount of refrigerants emitted by streamlining operations as far as is technically possible and economically reasonable. We will also continuously investigate the possibility and costs of care and recovery or destruction of spent refrigerants.

### Chemicals - RoHS & Reach

Within our Development process we include a thorough review of all components so that we are compliant with existing regulation regarding the contents of our sensors. We maintain constant awareness of the regulations in every territory to ensure that our products are compliant.

For Europe this means that we place extensive efforts to verify that we meet the strict restrictions coming from EU's RoHS and REACH regulations.



### Heating / water / electricity

Senseair consumes energy in the heating, cooling and lighting of its facilities, and in the use of production machinery. In 2021, despite higher production volumes, Senseair's total energy consumption was 2,1 MWh, having been 2,3 MWh in the previous year.

Our energy consumption is 100% fossile free. The origin of our electricity is hydropower and the heating for the production facility in Delsbo comes from thermal heat pumps. We also use thermal for cooling.

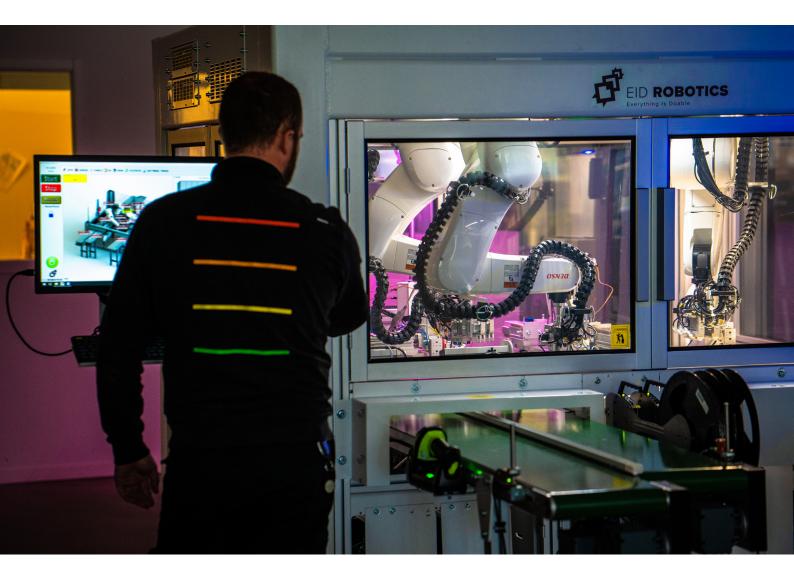


We maximize our efforts to ensure that no waste occurs.

Our main environmental target is to reduce the amount of product scrap in the production process. By minimizing the number of rejected sensors, we can impact our environmental impact from different environmental aspects, such as use of electricity, metals, PCB's etc. Total waste has increased but the volumes have decreased in relation to our increased production.

For the waste that inevitably occurs, we have an extensive program for recycling and minimizing the waste going to landfills. In 2022 99 % of our waste was recycled. Together with our partner Stena Recycling we sort our waste in over 20 fractions to achieve the best recycling possible according to the waste hierarchy.

### Social issues



### HR Management

For the future and development of Senseair, it is important to have the employees and development in focus. By putting people at the forefront, Senseair takes overall responsibility in sustainability, which results in content employees who contribute to continued good business development.

It is important to be part of society and, via Senseair's products, be able to contribute to an improved environment.

### Company Culture

Senseair is proud to share the same values as Asahi Kasei; Sincerity, Challenge and Creativity, which describes the culture as a continuously developing organization and business that constantly needs to be challenged in order to deliver qualitative and premium products.

Competent and committed employees are the core of the contribution to Senseair's success and the ambassadors of the company's future.

### Individual Development

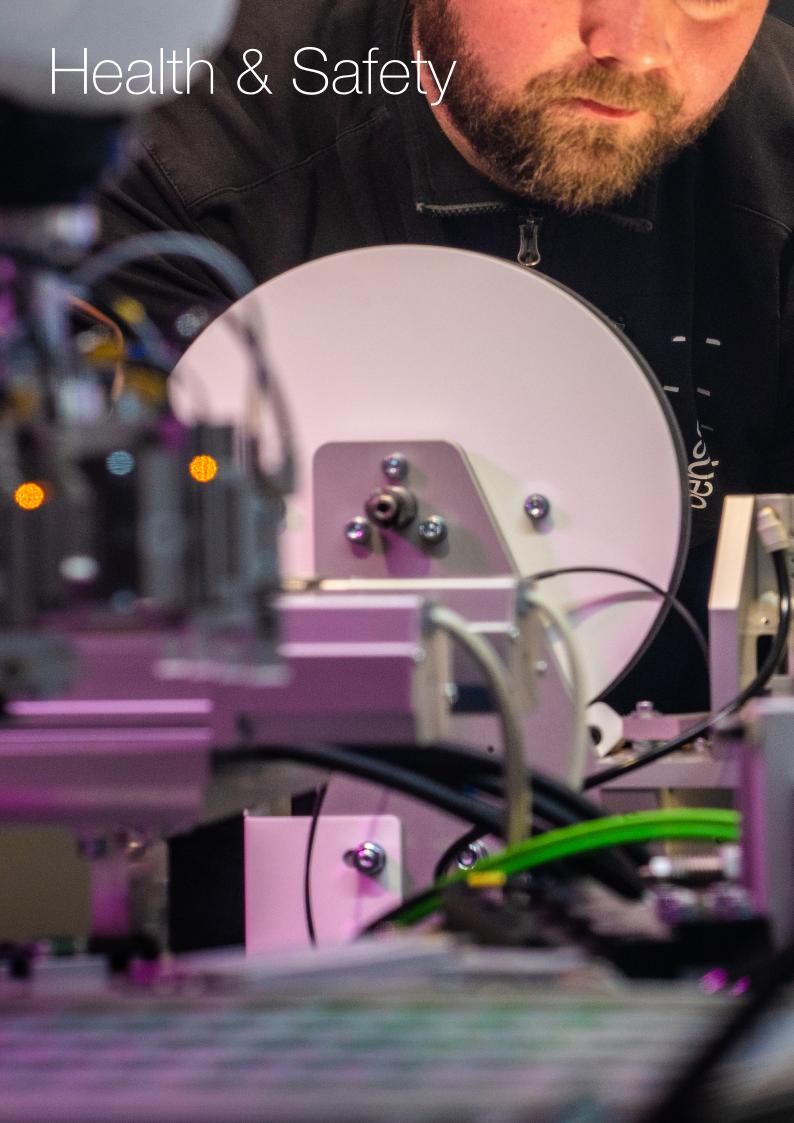
Senseair shall be an attractive workplace, offering good development opportunities and good conditions for a career within the group. Senseair has its manufacturing process and development in both Sweden and Japan, which creates opportunities to share in each other's lessons, culture and knowledge. All employees have annual development meetings with their immediate manager, where they discuss both short- and long-term goals regarding work tasks and skills development.

This process identifies employee needs at the same time as valuable competence is made clear within the group. Senseair must be a long-term attractive employer where employees feel seen and are offered developing and challenging responsibilities and tasks - regardless of where in the organization they are.

### Diversity, Equity and Inclusion

There is excellent value in having an ethnic and cultural diversity with an even age and gender distribution throughout the entire operation. Senseair strives to achieve an equal employee composition and to get more women into leading positions.

Senseair has a discrimination policy to prevent discrimination from taking place. At their introduction, all employees receive a review of this policy and the whistle-blowing system that all employees are aware of and have access to.



### Physical H&S

Senseair improves its occupational safety by continuous active measures. Our production environment is clean, bright and without noise, and designed with employee safety in focus.

The ISO 45001 occupational health and safety management standard is used as a benchmark. The development of safety is also monitored by the Safety Council, which meets four times a year.

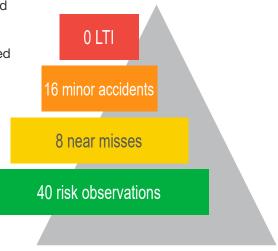
Senseair reacts to all occupational accidents and near-miss incidents appropriately to prevent them from recurring. In addition, the Process Engineering teams participate in ensuring the safety and efficiency of production areas.

In order to become more proactive we have implemented the use of the incident reporting tool IA. With this easy to use system all employees can report risks and incidents. By this we have improved our ability to reduce accidents to occur. Most risks are related to the handling of gas bottles, chemicals and materials and the use of tools at workstations.

Challenging postures and extended sedentary work present a challenge in assembly and office work. The negative impact is avoided through focus on ergonomics.

Regular training is conducted for all employees in health and safety issues, including CPR, fire evacuation, chemicals and ergonomics.

We follow up our accidents by the same KPI as the whole Asahi Kasei group, lost time injury rate per 1 million working hours. The group target is to have a LTIR below 0,6.



Incident Summary for 2022



### Local communities

Contributing to Environmental Protection and Harmony with Local Communities.

The Asahi Kasei Group is committed to operating in harmony with the environment and with local communities and to contributing to the development of local communities through our business activities.

Contributing to and Communicating with Local Communities Our employees endeavour to contribute to our local communities through our business activities and to actively participate in community fellowship activities. Our employees also endeavour to gain a sufficient understanding of local culture to deepen our communication with local communities.

Senseair has always had in mind to support the region, mainly through creating jobs, but also if Senseair could support in other ways e.g. networking and participating in collaborations that promotes the region, dialogues with both Hudiksvall and Ljusdal municipality about e.g. attractiveness. Another example is collaboration with RISE (Hudiksvall) in innovation creating activities. Supporting the region's education and competence in exchange with pupils and students is another area. Study visits, internships (since 2012) are examples.

Through increased efficiency and initiative, we increase our competitiveness, which secures jobs in the region. This lays the foundation for a maintained community service in the municipality.

10 Million Sensors produced here







### CSR procurement

Procurement makes up approximately two-thirds of our turnover, which is why efficient procurement is a significant competitive factor for Senseair. Senseair has a broad network of local, regional, and international suppliers and partners, which Senseair seeks to develop to ensure good quality and cost-effectiveness. Suppliers to Senseair are going through an evaluation process, which also includes CSR questions, before approval.

#### Conflict minerals

Senseairs most important document for procurement is the General Purchasing Conditions. The document states that the supplier always shall comply with the latest directives concerning Conflict Minerals. A link to the latest updated document is attached to all Purchase Orders sent out from Senseair to highlight the importance.

Procurement is also following the Senseair Conflict Mineral Policy by not directly procure any conflict minerals from any source and endeavors not to procure products that may directly or indirectly finance or benefit armed groups in the DRC or adjoining countries. Procurement is communicating our expectations to our suppliers that they have a conflict-free sourcing policy, provide conflict-free metals, and monitor their supply chain. Procurement requires suppliers to demonstrate due diligence in the procurement of conflict metals, show corrective action if conflict minerals are traced to unverified sources, and use the Minerals Reporting Template (CMRT).

#### CSR evaluation

Senseair requires that all its partners comply with the law and agreements and operate according to Senseair Code of Conduct. The Code of Conduct sets the standards that Senseair expects all suppliers to follow. It is the starting point for any new or existing business relationship, and it covers areas such as health and safety, child and forced labour, human rights, anti-corruption, compliance with laws and regulations, environment, and climate change.

Senseair suppliers shall have policies in place to assure that tantalum, tin, tungsten and gold in the products they manufacture do not have any connection with perpetrators of serious human rights in the Democratic republic of Congo or an adjoining country.

Senseair selects its suppliers carefully, and our cooperation with key suppliers is long term.

Senseair only uses approved suppliers that fulfil Senseair's strict criteria in terms of quality, delivery reliability and cost-efficiency.

Senseair performs audits at our suppliers regularly and monitors their compliance with the Code of Conduct.

### Anti-corruption

As a member company of Asahi Kasei Group, Senseair complies with the Asahi Kasei Group Policies for Prevention of Bribery.

The Asahi Kasei Group endorses the UN Global Compact and has proclaimed that it will "strive to prevent all forms of corruption including coercion and bribery." Corruption including bribery is clearly prohibited within the Asahi Kasei Group Code of Conduct as well.

The Asahi Kasei Group considers bribery to be a particularly important risk factor which could seriously jeopardize our corporate reputation. The Asahi Kasei Group Policies for Prevention of Bribery clarify basic policies to prohibit bribery and procedures to follow to prevent bribery. These policies are made known to the entire Group based on a clear internal framework.



Asahi Kasei Company Policy https://www.asahi-kasei.com/sustainability/ governance/compliance/pdf/about\_compliance\_02.pdf

#### Whistle blower

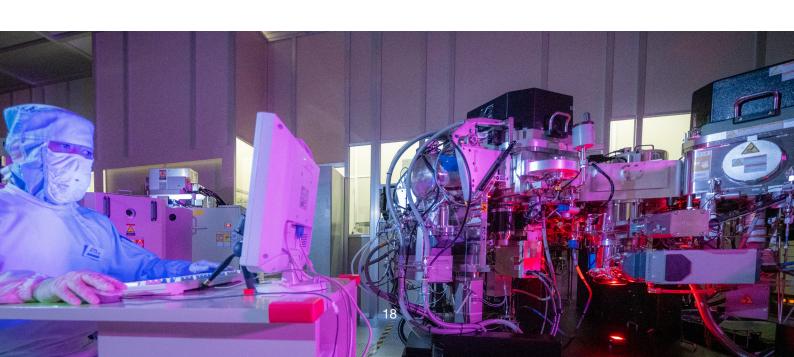
Senseair should be characterized by an open culture where all employees feel they can express themselves freely.

The Whistle blower function has been developed to encourage reporting of serious improprieties suspected of being committed, sanctioned, or deliberately overlooked by a senior or key position within Senseair.

Serious improprieties refer to serious misconduct concerning accounting, internal accounting controls, auditing, bribery, serious environmental crimes, major deficiencies in workplace health and safety, serious forms of discrimination and harassment or other serious improprieties concerning the vital interests of the company or the life or health of individual persons.

Senseair's Whistle-blower function and these rules aim to ensure:

- an opportunity for employees and other stakeholders to inform Senseair of serious improprieties within the Company
- that the information submitted is handled correctly in line with the legislation and regulations in force
- that every person who informs Senseair of serious improprieties in good faith is protected from reprisals



### Risk management

### Supply chain

Senseair's global supply chain includes procurement from countries with different risk levels. Potential risks in the supply chain include, e.g., compromising human rights or labour rights, risks to occupational health and safety, and causing environmental damage. Senseair's suppliers can cause notable reputation or business risks to the company if they engage in such unethical behaviour.

To effectively manage risks in the supply chain, Senseair has a broad supplier evaluation process, and each supplier is compelled to commit to Senseair's Code of Conduct.



### Health and safety

In our own operations, the greatest threats to employee health and safety, such as work-related illnesses and accidents, arise from a working culture where our health and safety processes are not followed, and risks in the work environment are not controlled or even recognized. Our employees are involved in health and safety decisions through consultation and cooperation. We comply with legal requirements and develop and implement appropriate health and safety procedures and working practices.

Senseair has a Safety Council, which monitors all work safety aspects. The Safety Council gathers quarterly to review corrective actions and preventive best practices. In addition to that, sick leaves, accidents and risk observations are monitored monthly. The occupational risk analyses are performed regularly at all locations to verify if any potential occupational diseases may result from our operations.

### Unethical behaviour

Employee-related risks may also arise from violations of Senseair's Code of Conduct and related principles, such as practices related to bribery, fraud, corruption, and misconduct, which could impact the company's reputation and its financial position.

#### Climate-related risks

Due to climate change e.g., extreme weather conditions are becoming more common. For example, floods or tornadoes could pose a threat to the continuity of Senseair's operations. The company has business continuity plans in place in all factories to manage possible impacts.



	Unit	2022	2021	2020		
Environment						
Total waste	ton	30,7	26,1	18,5		
Scrap electronics	ton	2,42	3,3	1,73		
Landfill waste	kg	320	50	133		
Waste recycling share	%	99,0	99,8	99,3		
Total energy use (Electricity & heating)	MWh	2085	2340	1845		
Emissions of HFC	ton CO <sub>2</sub> -eq	4,5	44,8	9,0		
Share fossile free electricity	%	100	100	N/A		
Social						
Number of LTI's (Accidents with sick leave)	number	0	N/A	N/A		
LTIR AK standard	number	0	N/A	N/A		
Number of accidents	number	16	N/A	N/A		
Number of incidents	number	8	N/A	N/A		
Number of risk observations	number	40	N/A	N/A		
Sick leave	%	4,07	2,82	3,22		
Women in work force	%	34	38	36		
Governance						
Workforce with collective agreement	%	74	72	72		
Whistle-blower cases	number	1	0	0		
Legal incidents	number	1	0	0		

# Sensealr AsahiKASEI



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