



Sustainability Report 2019

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About the report

The Alfa Laval Sustainability Report 2019 is the annual overview of the company's sustainability activities and performance during the fiscal year 2019. All figures relating to the previous year are included in parentheses. The report is available in English.

The Sustainability Report is Alfa Laval's annual Global Compact Communication on Progress about how we live up to, and work with, the Global Compact ten principles. The report is in accordance with the Global Reporting Initiative (GRI) Standards.

This report together with the risk section in the Alfa Laval Annual Report 2019 (pages 102–111) fulfil the requirements of the Swedish Annual Accounts Act.

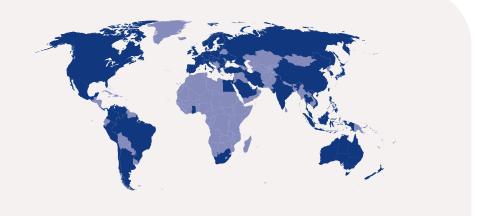
The printing of this Sustainability Report has emitted approximately 408 kg CO_2 . Alfa Laval and the printer Rosendahls have offset this by working together with the organization climatecare.org.

Contact

We welcome feedback, comments or questions to sustainability@alfalaval.com.

Presence in over 100 countries

Alfa Laval's sales and aftermarket organization operates in more than 100 countries — either directly or in collaboration with external partners. The company's production structure is also global, with 40 major facilities in Europe, Asia, the US and Latin America. Additionally, Alfa Laval has more than 100 service centres distributed worldwide to meet customer needs.



Our Purpose

Our purpose provides the motivational force in our daily activities. Dedicated to outstanding customer service, an inspiring and embracing workplace, and with sustainability in our genetic code, we define our purpose as accelerating success for our customers, people and planet.

Putting our customers first

We focus on cost effective and innovative solutions that support industries in their endeavour to purify, refine and recycle material. Our commitment is to optimize our customers' processes, creating responsible growth and driving progress. We work seamlessly together with them and are responsive to their needs – always going that extra mile to support them in achieving their business goals and sustainability targets.

Empowering our people

Our Scandinavian origin embodies our corporate culture, which is open, supportive and informal. This creates an environment for our employees to develop their talents and excel as professionals. By giving them

responsibility, we demonstrate trust, which makes our people grow. Everyone is treated with respect and we lead by example. We are determined to attract, develop and retain the most innovative and curious people in our business.

Making our world better, every day

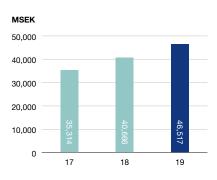
We regard sustainability both as a necessity and as a business opportunity. Our technologies promote a more responsible use of natural resources. We constantly drive progress to help reducing the environmental impact of most industrial processes through improved energy efficiency and heat recovery, better water treatment and reduced emissions. Both on land and at sea. It is all about living up to our motto *Advancing better*TM.

Ten largest markets

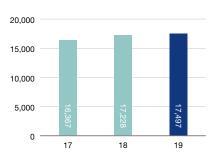
Order intake	MSEK	%*
United States	6,959	15.8%
China	6,085	13.8%
Nordic	4,210	9.5%
South Korea	3,376	7.7%
Adriatic	2,519	5.7%
Mid Europe	2,111	4.8%
South East Asia	2,060	4.7%
Japan	1,951	4.4%
Benelux	1,298	2.9%
France	1,266	2.9%

^{*} Percentage of total order intake

Net sales



Number of employees at year-end





"At Alfa Laval we are always working to drive progress. Anticipating the best way forward, for our customers and for the planet."

Interview with Tom Erixon, our CEO

In 2019, what was Alfa Laval's most significant contribution in the sustainability area?

Alfa Laval has achieved significant progress in a range of sustainability-related aspects. We managed to reduce our energy consumption despite large production increases. More than 70% of the electricity we use at our manufacturing sites is based on renewable sources, largely as a result of acquiring most of our electricity with green certificates but also due to the installation of solar power at our Chinese factory in Kunshan.

On the product development side, we have also invested in new energy storage solutions, which we hope will make the storage of intermittent energy possible in the future.

Last year, you prioritized improving the health and safety performance of your own operations. What initiatives did you launch to support this, and what improvements have they generated?

We launched the company-wide initiative "I care" focusing on improving awareness about the importance of safe behaviour. We also continued to work with protective equipment and safe processes. Although fewer LTIs were reported in 2019 than in the recent years, the pace of the decrease should be higher. We are determined to ensure everyone working with Alfa Laval returns home safely, every day.

How do you ensure your suppliers live up to your sustainability standards?

All our suppliers are expected to live up to Alfa Laval's Business Principles. However, it is our responsibility to support those who fail to meet our requirements. We develop individual improvement programmes that help suppliers to get to an acceptable level. We do not audit all our suppliers every year. Instead, our focus is on the suppliers who need support, because this is where we can make the biggest difference. This way of working with the supplier base has proven to be effective

Alfa Laval has targets for energy, water and carbon emissions set for 2020. In which area did you see the best progress and how was it achieved? In which area did you make the least progress and why?

For companies with growing production and market reach, such as Alfa Laval, it is often challenging to meet targets set in absolute terms. This is a learning process, and we are constantly looking for efficient ways to set quantifiable targets and select relevant indicators. However, despite this challenge, we have been able to achieve a clear improvement in many areas.

We see a positive trend regarding reduced energy consumption. We will achieve our goal regarding carbon emissions from our manufacturing sites, but we are still struggling with goods

transport, where the share of air freight is high. Making progress on our carbon target requires that we review our global distribution system, both in terms of cost efficiency and environmental impact. We have also worked to reduce water consumption and focused on our service centres using high volumes of water located in water scarce areas.

What will be your sustainability priorities in 2020?

Health and safety, climate and water remain the three cornerstones of sustainability at Alfa Laval. We will continue our journey to ensure a healthy and safe workplace. Our ambition is to become carbon neutral within the next ten years and the plan for how to achieve this will be developed during 2020. Water is another area of growing importance. We have a fair chance of becoming fully circular when it comes to how we process and use water, especially for certain cleaning processes. In addition, we will start looking into packaging material and plastics.

What makes Alfa Laval an attractive employer?

Apart from the obvious benefits of working for a global company with international opportunities and a strong knowledge base, Alfa Laval has two unique traits that truly make it a fantastic place to work. Firstly, our decentralized organization gives greater responsibility early on in one's career, creating a challenging and developing working environment. Secondly, our entire business has a very clear purpose to advance the success of our customers, people and planet. I think this purpose glues us together.

How will the world's increasing sustainability focus support Alfa Laval's business in the near future?

The coming decade will be very different from the past ten years. Sustainability has already enabled significant shifts in our R&D portfolio, technological processes, customer base and range of products and solutions. Alfa Laval has the potential to address many of the current and future sustainability challenges in the areas where we operate. We support the marine industry in reducing their environmental footprint. Our products help modernize the entire food production system, improve farming and develop new protein sources. With our solutions, industries become more energy efficient and increase the pace of their progress towards the global climate targets.

Lund, February 2020

The

Tom ErixonPresident and CEO

Our business

Dedicated to outstanding customer service, technological innovation, an inspiring and embracing workplace, with sustainability in our genetic code, we strive to accelerate success for our customers, people and planet.

In a changing world, we are responsive to changing customer needs. Our focus is on delivering cost-effective and innovative solutions that improve customer performance. Our products help to purify, refine and recycle material.

We help create better everyday conditions for people by offering efficient and environmentally responsible products and solutions in the areas of heat transfer, separation and fluid handling. The organization has three industry-oriented Business Divisions: Energy, Food & Water, and Marine.

Input

64,343

Total assets, MSEK

17,497

Employees

>100

Production and service operations

1,086

R&D investments, MSEK

253,779
Energy consumption, MWh

Energy Division

The Energy Division has customers in a range of sectors, including oil and gas extraction, processing and transportation, refinery, petrochemicals and power generation. The division's main technology is heat transfer and Alfa Laval is heating and cooling some of the world's tallest buildings.

Food & Water Division

The Food & Water Division has customers in various sectors, including food, pharmaceuticals, biotech, edible oils, breweries, and dairy products. The division also specializes on water and waste treatment. The offering includes heat transfer, separation products and flow management products, such as pumps and valves.

Marine Division

The Marine Division's customers include ship-owners, yards, manufacturers of diesel engines, as well as companies that work with oil and gas extraction at sea. Its offering includes heat transfer equipment, high speed separators and pump systems.









Outcomes

46,517 7,198

Net sales, MSEK

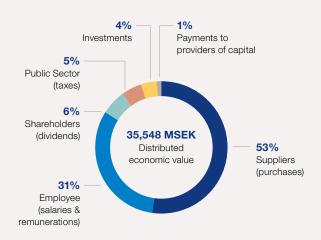
>3,70

Patents

Operating income, MSEK

Carbon emissions, tonnes CO₂e

Economic value distributed in 2019





Heat transfer

Heating and cooling are basic needs for both the individual and in most industrial processes. There are a large number of industries today in which heat transfer solutions are required for heating, cooling, ventilation, evaporation or condensation. Heat transfer products from Alfa Laval are used in numerous areas — from food production and petrochemicals to the creation of a pleasant indoor climate or domestic hot water in private households, to name only a few examples.

The main product in Alfa Laval's offering — the compact plate heat exchanger — is more efficient than alternative technologies. Heat exchangers transfer heating or cooling, often from one liquid to another. Plate heat exchangers are made up of a series of plates assembled closely to each other. Between these plates run two channels containing media at different temperatures. These flow on either side of the thin plates and in opposite directions to each other, resulting in a heat transfer between the media.



Separation

Separation is the technology that represents the origin of the Alfa Laval brand. The business began in 1883, with a continuous separator, separating cream from milk, and this technology remains a core Alfa Laval technology to this day. Alfa Laval's offering includes separators, decanter centrifuges, filters, strainers and membranes. Separation products are used, for example, in the dewatering of sludge in wastewater treatment plants and in food and pharmaceutical processes.

Liquids, solid particles and gases can be separated from one another with precision and a high degree of reliability. The liquid with the highest density is separated naturally from the other liquid when it sinks to the bottom. By rotating the mixture, rather like what happens in a washing machine, centrifugal force can be used to speed up the process.



Fluid handling

The transportation and regulation of fluids in an efficient and safe manner is crucial to many industries. Alfa Laval focuses on fluid handling products, such as pumps and valves, for industries with stringent hygiene requirements but also pumping systems for the marine industry and the offshore market. Fluid handling products fulfil an important function in, for instance, the production of mozzarella cheese, in the pharmaceutical industry, in the production of various fruit juice concentrates and in pumping/offloading oil from tanker vessels.

Pumps drive the flow of liquids, while valves are used to guide the flow by opening and closing. Alfa Laval's unique valves make it possible to handle two liquids at once — in the same valve, without the liquids coming into contact with each other. This makes it possible to create flow systems where cleaning and production take place in parallel.



Business Principles

Alfa Laval's four Business Principles – Environment, Social, Business Integrity and Transparency – describe the way we must act within society whilst achieving our business goals.

Today we face several urgent global issues: combatting climate change, bribery and corruption, while protecting human rights and ensuring there is enough food and water for everyone. By following our Business Principles, we can find many opportunities to contribute to a more sustainable future and advance the success of our customers, people and planet.

Alfa Laval's Business Principles

— Environment, Social, Business Integrity
and Transparency — form the basis of
our sustainability work. Our approach
is to focus on the areas where we have
identified the highest risks and where
we can have the greatest influence.

The Business Principles apply to all companies in the Alfa Laval Group.

Environment — Optimizing the use of natural resources

Alfa Laval makes a significant contribution to reducing the environmental impact of industrial processes. We support a precautionary approach to environmental challenges and work to use energy and water efficiently in our production and service operations. Read more about our progress on pages 24–25. Equally important is our ability to design products and services in a way that provides our customers with an opportunity to become more resource efficient and competitive. Read more on pages 18–23.

Social - Respect for human rights

Ensuring that we respect human rights, carry out due diligence and provide good working conditions is an essential part of this principle. Alfa Laval has zero tolerance

towards child and forced labour and works actively to prevent workplace accidents in all our premises.

Read more about human rights in our supply chain on pages 34–35; about our work with diversity and learning on pages 26–28, with health and safety and working conditions on pages 29–31; about our community involvement on pages 36–37.

Business Integrity — High ethical standards

Alfa Laval conducts its business with honesty, integrity and respect for others. Our performance is governed by high ethical standards and the principle is based on following all relevant laws where we operate. Read more about how we work with business integrity on pages 32–33.

Transparency — Commitment to open dialogue

Alfa Laval believes in open communication but is careful not to reveal commercially valuable information. Our ambition is to build trust through open dialogue with our various stakeholders around sustainability opportunities and challenges. Read more about our stakeholder dialogues and materiality assessment on page 12.

Responsible sourcing is a priority at Alfa Laval. In order to ensure compliance and high sustainability standards at our suppliers' operations, we have developed a separate supplier code of conduct — Business Principles for Suppliers — that focuses on the most important sustainability aspects in our supply chain. Read more about responsible sourcing at Alfa Laval on pages 34–35.





Strategy and governance

Alfa Laval's Business Principles together with other policies guide our employees in their everyday work.

Sustainability is part of Alfa Laval's DNA and business model. Our Business Principles were developed to ensure we act in a way that does not infringe on human rights, the environment or our business integrity. The Business Principles are supported by a number of internal policy documents, which expand on the Principles and provide employees with more detailed information. Policies are supported by a management structure, tools, guidelines and training activities made available to managers and employees via the company intranet.

Our Business Principles and other relevant codes and policies are based on international guidelines, such as the OECD's Guidelines for Multinational Enterprises, the United Nations Guiding Principles on Business and Human Rights and the United Nations Global Compact.

The Alfa Laval Board is responsible for monitoring the implementation of the Business Principles. A sustainability plan with focus areas is agreed at Board level and followed up annually. Group Management is responsible for implementing the Business Principles, including setting and reviewing targets

for improvements. Managing Directors of subsidiary companies have the responsibility to translate the Principles and associated policies into local rules and procedures. Line Managers ensure that their employees understand the Principles and receive the necessary training to implement them.

An independent internal audit function provides support in monitoring compliance. Suspected breaches against the Business Principles and other relevant codes and policies can be reported to Alfa Laval's whistleblowing system (read more about the upgraded system on page 33).

Stakeholder engagement

Engaging with our stakeholders provides important input and helps us continuously improve and make progress towards our business and sustainability goals.

We engage in both formal and informal dialogue with our stakeholders. The stakeholder groups identified as priority groups for engagement on sustainability issues are customers, shareholders and investors, employees, future employees, business partners (including suppliers), neighbours, authorities and the media.

We have regular contact with our customers and every third year we conduct a brand study, which provides us with an in-depth understanding of how our customers perceive our company.

Our shareholders participate in Annual General Meetings and investors are invited to our annual capital markets days.

Alfa Laval's potential to effectively respond to future sustainability challenges is one of the topics discussed at these meetings.

Employees are encouraged to give feedback directly to their managers and through annual employee surveys.

Our suppliers are important partners for our business success. Regular interaction with them results in mutual development. In addition, we regularly invite them to conferences and workshops.

We have an open dialogue with the communities in which we operate, including collaboration with universities and local governments.

Materiality assessment

Alfa Laval's materiality assessment was carried out in order to review the sustainability topics where we can make the greatest difference. The topics that are most material both internally and externally

are health and safety, legal compliance, energy use, climate impact, supplier business ethics as well as anti-corruption. Moreover, the assessment highlighted the key role Alfa Laval's products and services play in helping our customers achieve their energy efficiency, climate and water goals. This was ranked as important, both internally and externally – internally because of the business opportunities created for the company, and externally because our products and solutions can help customers reduce their environmental impacts.

Our assessment also shows that stakeholder perceptions of Alfa Laval's performance in the prioritized areas is in line with their expectations. The materiality matrix below details the results of the assessment.

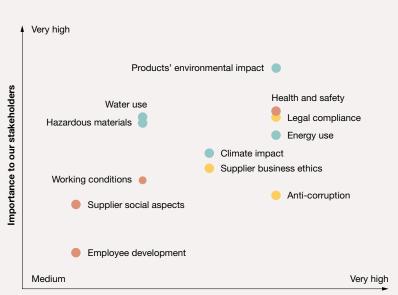
Materiality matrix

The matrix shows areas of high importance both to Alfa Laval and the company's main stakeholders.

Environmen

Business integrity

Social



Importance to Alfa Laval

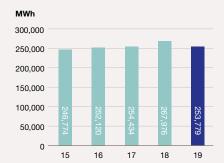
Targets and target achievements

Alfa Laval's environmental and social targets aim to drive efficiency and behavioural change to achieve better results in the long term. The graphs presented below are a selection of the company's sustainability targets. Progress on the targets is presented in more detail within each section of the report as well as in the detailed index on pages 39–47.

Environmental targets by 2020

Energy consumption

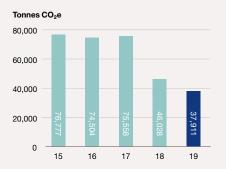
Target: Reduce energy consumption by 10% between 2015 and 2020.



Energy consumption decreased by 5.3% compared to 2018, mainly due to the energy efficiency initiatives that were ongoing during the year. However, it has increased by 2.8% compared to 2015.*

Carbon emissions

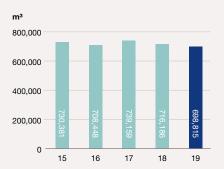
Target: Reduce carbon emissions by 15% between 2015 and 2020.



Carbon emissions from energy consumption (purchased energy, electricity and company cars) decreased by 51% compared to 2015. The decrease is a result of changed electricity agreements, from fossil-based to renewable sources.*

Water consumption

Target: Reduce water consumption by 10% between 2015 and 2020.



Water consumption decreased by 4.3% compared to 2015. Projects are currently ongoing at our sites located in water-stressed regions of China, India, Brazil and the US.*

Social targets by 2020

Accidents

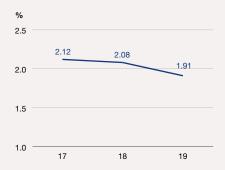
Target: Reduce Lost Time Injuries by 30% between 2017 and 2020.



Lost Time Injuries have decreased by 22% compared to 2017. The improvements are attributable to local and company-wide programmes and initiatives, such as "I care", focused on ensuring safe behavior.

Absenteeism

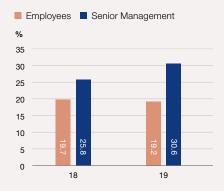
Target: Reduce absenteeism by 6% between 2017 and 2020.



Absenteeism has decreased by 10% compared to 2017. The decrease is a result of fewer days lost due to injuries.

Gender equality

Target: Increase the proportion of women in the company as a whole and also in leading positions year-on-year.



In 2019, the proportion of women employed in the company (excl. non-Alfa Laval branded acquisitions) was 19.2%. The proportion of women in senior management position was 30.6%, a 18.6% increase compared to the previous year.

^{*} The figures presented in the graphs above refer to the sites included in the baseline year 2015 in order to enable relevant comparisons.

Growth drivers

As the world changes, new challenges but also new opportunities arise. Global trends in the areas of food, transport and energy are creating new ways for our business to grow. These structural changes include: the global response to climate change and rising temperatures; the growing demand for more sustainable methods of energy generation due to rising energy needs; the increasing demand for processed foods from the growing middle class; the rising number of water-stressed regions globally; the increasingly stringent legal requirements on emissions to air and water; and international trade creating a need for more sustainable marine transport solutions.



Drivers

Opportunities



If the climate challenge is not addressed properly with new technologies, policies and behaviours, the consequences may be devastating.

We provide technology to improve energy efficiency which is essential for reducing climate impact from industry. In addition, we provide solutions in other areas such as water, chemical and effluent management to mitigate climate change risks.



Energy

The world's energy needs are growing. There are two ways to manage this challenge: to increase the total energy generation, and to improve efficiency or recycling of the energy generated.

Our solutions for power generation, oil and gas exploration, renewable fuels production, refinement and other industries play an important role in the transition to more energy efficient processes.



Water

Water is becoming a scarce resource in many regions of the world. The increasing demand for fresh water together with the challenges caused by climate change will affect the global population and ecosystems.

Our solutions and technologies enable the reduction of water consumption in industrial processes and improve water quality. These solutions have the potential to significantly increase volumes of reused water.



Food

The growing middle class and urbanization are two global trends that are evolving at an undiminished rate, resulting in a growing demand for ready-made food and supply chains with increased resource efficiency.

Alfa Laval's history began in 1883 with the development of a separator for separating cream from milk. Today, hygienic applications in the food industry include heat exchangers, pumps and valves. These products meet the strictest hygiene requirements and can help to optimize the use of raw materials.



Environmental legislation

Human impact on the environment is driving increasingly stringent laws, while companies are encouraged to take voluntary steps that contribute to improved environmental performance. Alfa Laval has products for managing various environmental challenges, such as energy demand and marine fuel emissions.



World trade

International trade connects a world where raw materials are extracted in one country and processed in another, and where final products are transported to customers around the globe.

marine industry with equipment: engine room separators for cleaning fuel, heat exchangers for generating freshwater, loading and unloading pumping systems, systems for treating ballast water and reducing sulphur content in ship exhaust gas.

Contributing to the UN Global Goals

Alfa Laval contributes to progress towards the UN Sustainable Development Goals for 2030. We continuously improve our own sustainability performance and enable change by supporting customers to reach their environmental targets.

- Zero hunger
 - Alfa Laval's products and solutions improve shelf life, reduce waste and make food production hygienic and safe.
- Good health and well-being

Alfa Laval delivers hygienic equipment enabling efficient and safe production in the pharmaceutical industry.

- Quality education
 - Alfa Laval is committed to ensuring competence development in our own business. We also support charities and volunteering projects related to school education around the globe.
- Gender equality

Diversity and inclusion are key priorities for Alfa Laval and the aim is to increase the proportion of female employees and managers year-on-year.

Clean water and sanitation

Alfa Laval offers a wide range of technologies to treat wastewater and generate fresh water. These solutions contribute to improved access to clean water around the globe.

- Affordable and clean energy
 - Alfa Laval's products are involved throughout the renewable energy production process, from heating and cooling to mixing and separation.
- Decent work and economic growth

Alfa Laval's Business Principles require decent working conditions. Working conditions and safety are highly prioritized areas both in our own operations and in the demands we place on our suppliers.

g Industry, innovation and infrastructure

Alfa Laval invests heavily in research and development. The company launches between 30–40 new products per year and has over 3,700 patents.

Sustainable cities and communities

Alfa Laval provides solutions for energy efficient district heating and cooling — often using waste heat as well as thermal storage solutions.

Responsible consumption and production

Alfa Laval's ambition is to make every new product more efficient than its predecessor from a lifecycle perspective. Many of our products contribute to turning waste into value in different production processes.

Climate action

Alfa Laval works to minimize climate impact throughout the value chain. Our diverse products improve energy efficiency which, in turn, lowers the consumption of fossil fuels and thus reduces carbon emissions.

Life below water

Alfa Laval offers a whole range of products in the areas of energy and environment that contribute to reducing marine pollution and protecting marine biodiversity.

Life on land

Alfa Laval provides a cooling solution that protects the world's largest seed collection stored to provide a backup if a natural catastrophe, environmental damage or war would deplete the Earth's crop diversity.

Peace, justice and strong institutions

Decent working conditions are a requirement in Alfa Laval's Business Principles. With our global reach, we can potentially make a positive impact on local societies' anti-corruption and anti-bribery activities.

Partnership for the goals

Alfa Laval has been a signatory of the UN Global Compact since 2011. We actively engage with stakeholders throughout our entire value chain to develop common solutions and create shared value.



Enabling change

Alfa Laval's products and solutions enable our customers to improve the efficiency of their production processes by, for example, improving energy efficiency, reusing water or reducing waste. Moreover, Alfa Laval supports the transition to a more sustainable future in the energy, food and marine industries. For more information on how our products and solutions create value today and enable change for tomorrow, see pages 18–23.

Contributing to progress

By implementing our Business Principles, setting measurable goals and working to continuously improve, we contribute to several of the Global Goals. Examples are improving the health and safety of our employees, competence development, gender equality, responsible supply chain and reducing corruption risks, see more on pages 24–37.

Challenge:

How can we help supply the planet's fast-growing population with sustainable food?

The global population is increasing, and with it, the demand for food. At the same time, food producers are challenged by negative environmental impacts from the production of food, including the need to reduce waste.



Today: Creating value from by-products

Alfa Laval is constantly developing new processes that enable customers to turn by-products or waste into valuable resources. One example is the processing system installed at a Norwegian fish factory. It is the world's first fish factory that makes use of the whole herring and mackerel. After removing the fish filet, the remainder of the mackerel is turned into oil and fish meal for human consumption.

Using Alfa Laval products, the fish factory can both manufacture more sustainable products and become more profitable by using all parts of the fish and reducing food waste.



The Alfa Laval Centriflow system used by the fish factory consists of contherms, decanters, separators and evaporators, which together enable the reduction of food waste.

Tomorrow: Turning insects into a sustainable source of protein

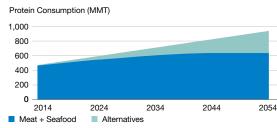
Finding alternative sources of protein is a necessary step to meet the growing protein demand while limiting our negative impact on the environment. As the consumption of meat, fish and plant-based protein is projected to increase, the alternative protein market offers a fast-growing, sustainable alternative. Significant investments are now being made both in cultured meat and insects.

Insects, in particular, offer a unique opportunity to address two of the major global challenges: protein supply and organic waste. The insects can be processed to become an alternative source of protein. Moreover, the insects can recycle nutrients from organic waste to bring them back into the local food value chain. Tonnes of organic residues, including agricultural residues, food industry by-products and kitchen waste, can be made into safe and high-value ingredients for animal food every day.

The black soldier fly larvae are particularly suited for alternative protein due to its rapid growth cycle and high capacity to break down organic matter. The larvae residue can also be used as fertilisers in the process, contributing to minimized waste in the food value chain.

Alfa Laval equipment help to make this exciting new business a reality, by optimizing the heating and separation phases of the protein production process.

The alternative protein landscape diversifies in the coming decades



Source: Lux Research

Sustainable Development Goals

By enabling food waste reduction, Alfa Laval contributes to SDG 2 Zero hunger, SDG 9 Industry innovation, SDG 12 Responsible consumption and production and SDG 13 Climate action. None of these breakthrough technologies and applications would be possible without partnerships with scientists and our customers, SDG 17.













How can we achieve the climate goals of the Paris Agreement?

Energy efficiency will be the primary contributor to meet the world's increasing energy demand while staying within the 1.5-degree temperature goal. At the same time, new technologies aim to enable a much greater use of renewable energy. Alfa Laval products, know-how and investments are crucial to the success of both strategies.

Today: Converting waste heat to useful energy

Industry consumes about 30% of the world's energy, where heat transfer solutions are required for heating, cooling, ventilation, evaporation and condensation. Alfa Laval is the number one manufacturer of heat exchangers in the world, and 80% of the products sold in our Energy division are related to energy savings and energy efficiency.

One example is from Denmark, where the world's most extensive district heating system uses heat exchangers from Alfa Laval. The system generates district heating by recovering excess heat from municipal wastewater, requiring minimal additional use of electricity. The full-scale plant will produce 65MW of energy, supplying 1,100 households in Nyhavn, Copenhagen and reducing about 500,000 tonnes of CO_2 annually.



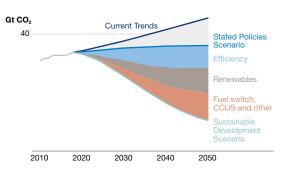
Alfa Laval heat exchangers are crucial to waste heat recovery. Above is an Alfa Laval semi-welded plate heat exchanger.

Tomorrow: Enabling the storage of renewable energy

Consumption of renewable energy is growing rapidly, driven by investments in wind and solar power. However, sun and wind are not always available when and where it is needed – meaning that energy storage with more extended duration capacity than batteries is necessary.

Alfa Laval believes that thermal energy storage will be essential to provide reliability and stability in the renewable energy grid. For this reason, we invested in Malta Inc, the molten salt energy storage company founded by Google, with Bill Gates' Breakthrough Energy Ventures as the main shareholder. Their unique thermal energy storage plant will use new and ground-breaking heat exchangers from Alfa Laval. These heat exchangers will work in extremely high and low temperatures.

Pathways to reducing CO₂ emissions (by source)



Source: IEA 2019

Sustainable Development Goals

Alfa Laval's products contribute to achieving several of the UN Global Goals. Our cooperation with Malta and other organizations prove to be invaluable partnerships. Energy efficiency and reducing the use of fossil fuels are part of achieving SDGs 7, 9, 11, 12, 13 and 17.















How can we reduce the environmental impact of global maritime shipping?

More than 90 percent of global trade is tied to international shipping. Maritime shipping is expected to triple by 2050, due to the boom in e-commerce, infrastructure investments and the ambitions of emerging economies rich in natural resources to find their place in global trade. Shipping needs to reduce its environmental impact, including reducing carbon emissions and other pollutants.



Today: Cleaning oily water to exceed strict legislation

Bilgewater treatment is required by law to avoid oily waste polluting marine waters. Alfa Laval PureBilge is a fully automated centrifugal separation system that cleans oily water on board vessels at sea and ashore, without using chemicals, adsorption filters or membranes. Due to the centrifugal separation technology, PureBilge performs continuously even in the roughest sea conditions. By effectively removing oil pollution well below five ppm – far stricter than the 15 ppm required by the International Maritime Organization – it sets a new standard in the quality of the water discharged overboard.



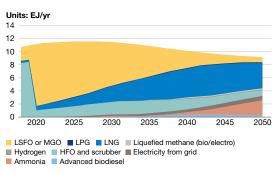
Alfa Laval PureBilge on the picture above removes oily waste on board vessels.

Tomorrow: Enabling the transition to decarbonisation

As the marine industry works towards a future based on non-fossil fuels, Liquid Natural Gas (LNG) is projected to become the transition fuel towards decarbonisation. The lower carbon content of LNG compared to traditional ship fuels enables a 20–25% reduction of carbon dioxide emissions.

Alfa Laval enables this transition by offering leading products for fuel conditioning, thermal fluid heating, heating and cooling, gas combustion and steam production technology.

Energy use and projected fuel mix 2018–2050



LSFO, low-sulphur fuel oil; MGO, marine gas oil; LPG, liquefied petroleum gas; LNG, liquefied natural gas; HFO, heavy fuel oil; Advanced biodiesel, produced by advanced processes from non-food feedstocks ©DNV GL 2019

Sustainable Development Goals

By reducing oil pollution in water, the PureBilge solution contributes to SDG 14 Life below water. By enabling the shift to LNG, our solutions also contribute to SDG 13 Climate action and SDG 9 Industry innovation. None of these solutions would be possible without partnerships both with our customers, suppliers and other organizations, SDG 17.









Planet

To remain successful, we need to grow and at the same time respect the planetary boundaries. At Alfa Laval, concern for the environment and sustainability is a natural part of the way we think and act, while also presenting a business opportunity. We make it possible to reduce the environmental impact of most industrial processes, both on land and at sea. We contribute to the development of better and safer food.

Alfa Laval works to optimize the use of natural resources in our own and our customers' operations. As part of this commitment, we work continuously to reduce our energy and water use, decrease carbon emissions as well as improve waste management processes in our production and service operations, in accordance with the Alfa Laval Environment Policy and environmental strategy towards 2020 that apply to the entire company.

Environmental targets 2020 with baseline 2015



Reduce energy consumption by 10%

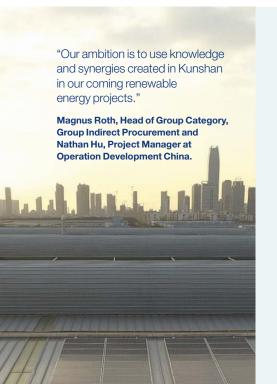
We aim to reduce energy consumption by 10% compared with 2015 in absolute terms. We work to achieve the target by focusing on the analysis and improvement of the company's energy use on different levels, from individual behavioural changes to concrete energy saving projects. For more information, see below and pages 41–42.

Knowledge is power

Knowledge of how energy is consumed in our operations is central to resource efficiency and improved environmental performance. In 2019, Alfa Laval initiated a global project to measure and analyse energy and water consumption. Over time, the data gathered through the project will help us decide where the company should direct its energy efficiency investments. The project will cover several crucial steps. Firstly, energy consumption data will be collected for further analysis, and the most energy

intense facilities, premises and processes will be identified. Secondly, energy efficiency action plans will be applied accordingly. The data collection and analysis will be performed through a digital platform.

We cannot rely only on technology in the transition to a more energy efficient business. A change in behaviour can effectively replace costly technical solutions, and therefore we will continue to strengthen competence and knowledge sharing in this area.



Solar energy powers new Chinese factory

In July 2019, Alfa Laval opened a new manufacturing facility in Kunshan (China), where 30% of energy supply is generated by the solar panels on the factory roof. The Kunshan factory will produce a wide range of products for the Asian market where the demand for Alfa Laval products is constantly growing, thus becoming one of the most energy intense facilities in the company.

Sustainability was in focus when the factory was designed and constructed. In addition to the solar panels, it has natural light from skylights, LED lighting and natural ventilation in the roof, sensor-controlled water and heat recovery.

Size of the installation 3,276 solar panels cover 15,000 m² of roof

Facility's annual energy consumption 3,500 MWh

Expected annual generation capacity 1,000 MWh, or 30% of the factory's energy supply

Closing the loop

During 2019, 60,000 m³ of water were used at Alfa Laval's 66 service centres. A handful of service centres stood for 60% of that volume. This year, a project was initiated to investigate technologies that can reduce our use of potable water at these sites. In the initial phase of the project, processes where water is used and the requirements on water quality were analysed.

The project identified the possibility to reuse water for hydrostatic testing as a straightforward solution. At one of the sites, the potential reduction of water consumption was estimated to be 30%. Technical solutions will be implemented during 2020, prioritising sites located in regions with water scarcity.



Arash Fayazzi, Service Operations Development Manager, and Jonas Anehamre, Material Specialist, are responsible for the water reduction project.



Reduce carbon emissions by 15%

To ensure Alfa Laval achieves its carbon emissions target, we work to increase the proportion of renewable electricity used. For more information, see below and pages 24 and 41–43.

Renewable sources of electricity

In 2019, 73% of Alfa Laval's electricity was sourced from renewable sources, compared with 27% in 2015. Solar power generates 30% of the electricity used in our Kunshan factory inaugurated in 2019. During the year, we further increased the share of power purchase agreements in our global electricity supply. We focused on sites where electricity was generated from coal or other fossil fuels. In 2019, six of our large operation sites in China and India began to source 100% of their electricity from renewable sources.

Emissions from goods transportation

During the year, emissions from goods transportation amounted to 50,123 tonnes of CO₂, a 19% decrease from 2018 but

a 9% increase compared to the baseline 2015.

Goods transportation emissions per tonne kilometre were 99 gram/tkm compared with 92 gram/tkm, which was the baseline 2015. Our progress is still not satisfactory, as our carbon emissions from goods transport remain high due to greater transport need and more air freight compared to sea freight. Read more on pages 41–43.



The water target is focused on our sites in water-stressed regions. In 2019, the total water consumption was reduced by 2.4% compared to 2018 and by 4.3% compared to the baseline year 2015. The challenges to reduce water consumption are increased production and testing. For more information, see pages 41–43.



We aim to recycle 85% of the waste generated in operations by 2020. In 2019, Alfa Laval operations recycled 79% of waste. An example of a local initiative is the reuse and recycling of paper and wooden products.



We aim to eliminate banned chemicals from our operations. Alfa Laval has a robust material and chemical selection process for its products and we work to reduce the use of substances of very high concern and to eliminate chemicals listed as banned on our Black and Grey list. The use of chemicals listed as banned decreased by 56% compared with 2017. The decrease was mainly due to an updated method for removing paint in service centres. Removing the paint mechanically has enabled us to phase out dichloromethane.

Sustainable Development Goals

Alfa Laval works to optimize the use of natural resources. This involves reducing carbon emissions by improving energy efficiency and increasing the proportion of renewable electricity. We also work to reduce water consumption and improve our waste management processes. Alfa Laval contributes to SDG 7 Affordable and clean energy, SDG 12 Responsible consumption and production and SDG 13 Climate action.









People

We are a global company. We provide an open, supportive, informal and international environment for our employees to excel, with focus on safety towards all stakeholders. This empowers us to create and contribute to impactful and creative solutions. We lead by example by giving responsibility and treating everyone with respect.

Diversity and inclusion

Alfa Laval's vision is to create an inclusive workplace where diversity is essential to achieving the company's objectives. We believe that diversity maximizes the potential of individuals and of the organization as a whole.

Alfa Laval works to increase the proportion of women at management level and the number of women in the company as a whole. Our ambition is to recognize women with executive potential at an early stage. The proportion of female employees in the total company was 19.2% (19.7%) and the proportion of female managers was 30.6% (25.8%).

One initiative within this strategy is the development and mentorship programme — "Impact". The purpose of the programme

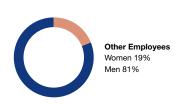
is to identify, retain and develop emerging female leaders within Alfa Laval in order to increase the number of management positions held by women. The 2019 programme involves 12 participants from different organizations within Alfa Laval. Since 2009, 43 participants have completed the programme.

Another example of Alfa Laval's work with diversity is "Inspire", a talent programme launched in 2019 with a focus on aligning diversity in the senior leadership with that of the global business. The programme is open for Alfa Laval's employees from Asia, Oceania, Middle East and Africa. The participants are expected to get a better understanding of Alfa Laval business and organization, and to be more proactive in their own career development.

Gender balance in 2019 Women Men







The charts present the proportion of men and women within different roles in Alfa Laval. The figures do not cover non-Alfa Laval branded acquisitions.

Truly global

Our work with diversity helps us ensure that the composition of employees reflects the geographic markets in which we operate. About 100 nationalities are represented within the Group.

We are determined to attract, develop and retain the most talented people, regardless of gender or nationality. The four employees below share their view on what it's like to be a part of a truly global workplace.





Name: Robert Barnes

Position/department: Head of Marketing and Portfolio Management in BU Energy Separation

Originally from: Virginia, USA Years with Alfa Laval: 13 years tremendous openness and willingness to share information and work together. With this collaborative environment and high levels of emotional intelligence, Alfa Laval is a perfect workplace in an increasingly digitalized world. You can work here for years with no risk of getting stale. There is always a new challenge, a way to learn and apply your skills."



Name: Elena Tyabina

Position/department: ALPS Facilitator in Operations

Development

Originally from: Korolev, Russia Years with Alfa Laval: 14 years

with a 1-year break

work with a wonderful community of professional and skilled colleagues from literally all over the world. And I appreciate a lot that Alfa Laval values its



Name: Guilherme Tambascia

Position/department: Global Service Manager for Evaporation

Systems

Originally from: Campinas, SP. Brazil

Years with Alfa Laval: 10 years

with a 2-year break

"I do enjoy Alfa Laval's global reach. I am in Lund, but my colleagues are in the US, Malaysia and other countries, and we work together every day across



Name: Carrie Yue

Position/department: Global Process Owner Talent

Acquisition

Originally from: JiangSu, China

Years with Alfa Laval: 9 years

The core competencies that enable business success

Action

Judgement & Decision Making Acumen Agility

Interaction

Networking & Influencing Leading Others & Self

Customer Focus

Satisfaction

Learning Ability Drive for Results

Training

Providing employees with learning opportunities is an important tool to ensure continuous development.

144,000 number of training hours

provided to employees

number of courses in the global programme

10,800

number of employees who took part in trainings

Talent acquisition

Half of the roles that are needed to become a successful company in our industry today didn't exist just seven years ago. In order to adapt to the changing market, we need to identify and hire new talent with potential. To do this, it is important to find people with the ability to constantly learn and to be agile, instead of only looking at previously acquired skills. We have defined eight core competencies to ensure that current and future employees continuously develop to support Alfa Laval's strategy, securing business success, see figure above.

Learning and development

We provide all our employees with training in several different areas through our own training platform, the Alfa Laval Academy. The platform includes a broad range of courses from basic training to advanced programmes in areas such as leadership and project management. In 2019,

compliance, including Alfa Laval's Business Principles, was one of the focus areas. For more information, see pages 10 and 32–33.

Employee Satisfaction

Every year, Alfa Laval conducts an employee survey that includes aspects such as employee motivation and satisfaction. The 2019 employee survey showed that our employees are highly motivated and confident about the future success of Alfa Laval. The results highlighted that 82% of all employees feel engaged. This figure is 2%-points higher than last year and more than 14%-points higher than the benchmark within our industry. The survey indicates that our company purpose, Advancing Better, contributes to increasing employee engagement. In other words, employees are motivated by being a part of "accelerating success for our customers, people and planet".

Sustainable Development Goals

Alfa Laval has more than 17,000 employees globally. As a large employer, we contribute to SDG 4 Quality education and SDG 5 Gender equality. Our employee philosophy includes four important components:

- We provide safe and healthy working conditions
- We continually develop employee competence and flexibility
- There shall be no direct or indirect discrimination on the grounds of race, colour, sex, religion, political
 opinion, national extraction or social origin
- We recognize the right of employees to freedom of association and collective bargaining







Health and safety

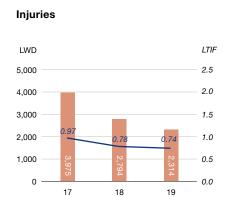
Alfa Laval's safety vision "We return home safely. Every day!" means that our ambition is to have a workplace that is free from accidents and work-related illnesses.

At Alfa Laval, we work to continuously improve our health and safety (H&S) performance. Our global H&S Policy requires that our workplaces have high standards of safety and well-being. The Alfa Laval Global H&S Manual underlines the accountability of our managers to fulfil and uphold this policy. The work is supported by local H&S management systems. Additionally, all Alfa Laval's facilities are expected to comply with local legislation and regulations.

Targets and progress

Alfa Laval's key target in the H&S area towards 2020 is to reduce lost time injuries (LTIs) by 30% compared with 2017. Sites with zero LTIs are expected to continue their proactive work. In 2019, the total number of LTIs was reduced to 119 (122). The total number of lost working days decreased to 2,314 (2,794).

In addition, we have an annual target to reduce absenteeism by 2%. Absence among Alfa Laval's employees due to illness or work-related accidents reduced to 1.91% (2.08%).



Lost Working DaysLost Time Injury Frequency

Health and safety indicators

	2017	2018	2019
Lost Time Injury 1)	152	122	119
Lost Time Injury Frequency 2)	0.97	0.78	0.74
Lost Working Days 3)	3,975	2,794	2,314
Absenteeism (%) 4)	2.12	2.08	1.91

- 1) Number of reported accidents including travel accidents
- 2) Number of accidents per 200,000 working hours
- 3) Days lost due to accidents
- 4) Days lost due to any form of illness (including LTIs)

Health and Safety priorities

During 2019, the focus remained on enhancing H&S performance in three main areas: safe behaviour, protective equipment and safe procedures.

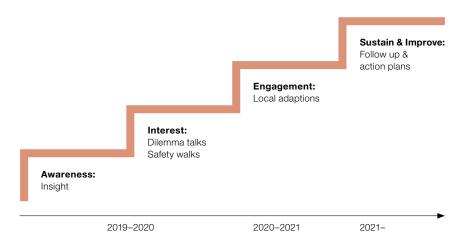
Safe behaviour

Promoting behavioural change is necessary to create a safety culture in the workplace. Alfa Laval's methods to raise awareness, "Stop-Think-Act" and 3PR, both applied during 2018 and 2019, gave positive results and significantly improved the safety culture in the company.

During the year, we launched the company-wide initiative "I care" with the purpose of promoting safe behaviour. The initiative builds on four crucial steps: Awareness, Interest, Engagement and Sustain & Improve.

The first step, Awareness, was successfully implemented in 2019 and will continue to be in focus next year. More than 200 top managers took part in an "I care" train-the-trainer programme. Furthermore, tools, such as workshops, information material and regular dialogues, were

Milestones in the "I care" initiative



designed to create insights and initiate a conversation about safe behaviour. Using these tools, we discuss dilemmas and everyday situations where Alfa Laval's employees health or safety can be compromised, and by doing so we improve risk awareness and understanding of what behavioural changes are required in different situations.

During the next step, Interest, which will be initiated in 2020, we will work to create and sustain interest in safe behaviour through ongoing dialogues on different levels of the organization.



Behaviour-Based Safety Programme

In 2019, the Alfa Laval facility in Richmond, Virginia (US) implemented a Behaviour-Based Safety Programme for its 300 employees. The process to re-energize the safety culture included three steps: a train-the-trainer workshop for the facility's safety committee and selected unit and team managers; a cultural safety assessment; and a training for facility managers and team leads on job hazard analysis to better understand the actual working environment of employees.

The process revealed that, despite the overall strong regulatory compliance, safety should become more integrated into the decision-making and personnel management. Following the above mentioned steps, facility's health and safety management developed an observation checklist as a tool to promote a safety culture. Since its implementation, we have seen a 57% drop in minor injuries and zero lost time injuries. Another positive effect is the upswing in employee engagement in H&S issues.



Protective equipment

During 2019, Alfa Laval continued to invest in improving the safety of machines and equipment. We successfully finalized a programme focused on the upgrade of machines and equipment used in Alfa Laval's service centres.

Safe procedures

The development of standardized procedures for all service centres remained focused on safe procedures for degasketing with liquid nitrogen and the safe handling of hazardous materials. In 2019, safety policies for marine service engineers were reviewed and updated. Moreover, a new standard for handling of chemicals was launched with the purpose to improve chemical management, reduce

risk for employees and the environment as well as to increase the efficiency of day-to-day activities.

Good health and well-being

At Alfa Laval, ensuring good health is both about concern for the individual as well as promoting Alfa Laval's continued business success. Local conditions determine the nature of the actions implemented to improve health and well-being. Examples include company sponsored physical exercise for employees during their free time and ergonomics training.



Sustainable Development Goal

SDG 8 is intended to promote decent work for all. This means protecting labour rights and promoting safe working environments for all workers. Working conditions and safety are highly prioritized areas for Alfa Laval.



Business integrity

Operating our business with integrity is essential to ensure that we live up to the expectations of our stakeholders. We should be able to guarantee that we conduct our business in a responsible and fair manner.

Compliance with laws, regulations and Business Principles

It is important for Alfa Laval to conduct its business with honesty, integrity and respect for others. This means that we follow the Business Principles of Alfa Laval as well as all applicable laws and regulations in the countries where we operate. We carefully monitor the development of international legislation, social standards and voluntary initiatives, including anti-bribery, anti-corruption and conflict of interest. During 2019, the focus has been on a stronger business integrity culture and increased transparency, where the updated whistleblowing system is a key component.

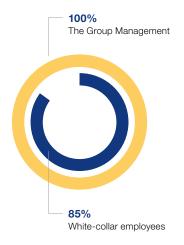
Anti-bribery and anti-corruption

Alfa Laval has a zero-tolerance approach towards any form of bribery and corruption. The international scope of Alfa Laval's sales organization means that we are active in several countries where there is a high risk of corruption. One of many tools used by Alfa Laval in assessing risk is Transparency International's Corruption Perception Index.

Alfa Laval's Anti-Bribery and Anti-Corruption (ABAC) Policy outlines the expectations the company has on all employees. Alfa Laval has built its work with anti-bribery and anti-corruption on the six steps outlined in the UK Bribery Act, and is based on the "prevent, detect and correct" methodology.

Risk assessments are made on a global level. More than 80% of Alfa Laval's sales companies have been evaluated for risks related to corruption and the highest exposure was found connected to the use of agents and distributors.

Proportion of employees trained in anti-corruption in 2019



Anti-bribery and anti-corruption process



Top level commitment

- Group ABAC Policy
- Commercial Ethics Council
- Corporate Governance sign-off



Risk assessment

- Annual risk assessment
- · Risk assessment in supply chain



Proportionate procedures

- Risk mitigation actions
- Supplier contracts include ABAC clause



Communication & training

- ABAC information available on the intranet
- ABAC training for employees
- ABAC training for suppliers



Due diligence

- Agent and distributor due diligence guidelines
- Due diligence on mergers and acquisitions



Monitoring & review

- Internal audit
- Whistleblowing function
- Annual Sustainability Reporting

No public legal cases regarding corruption have been brought against the organization or its employees during the reporting period.

Leading by example

The Commercial Ethics Council, chaired by the CEO, is responsible for ensuring that we have the appropriate policies and processes in place. All managers are responsible for ensuring compliance with our policies, including the ABAC Policy and the implementation of local guidelines. Line managers are reminded about their responsibility to implement all Alfa Laval corporate policies each year through an annual sign-off. Internal audits are conducted regularly and are intended to ensure that appropriate processes are in place and function properly.

Increased transparency with our updated whistleblowing system

We encourage our employees to resolve work-related issues and disagreements through an open dialogue. If this is not possible, a company-wide whistleblowing system enables both internal and external stakeholders to report suspected breaches anonymously.

During 2019, Alfa Laval upgraded its whistleblowing system to a more robust, secure and efficient tool that enables Alfa Laval employees to combat fraud and uphold the good reputation of the company. The system complies with the EU data privacy regulation (GDPR) as well as upcoming EU-wide standards to protect whistleblowers. Each report is encrypted and password-protected and can only be decrypted by designated individuals within Alfa Laval Group Legal who decide if and how whistleblowing messages shall be escalated.



Business Principles

One of Alfa Laval's Business Principles is Business Integrity.



ABAC Policy

Employees have received information on Alfa Laval's policies and procedures regarding anti-corruption.



Whistleblowing system

A group-wide whistleblowing system enables stakeholders to report suspected breaches of our Business Principles anonymously.



Sustainable Development Goals

SDG 16 is intended to substantially reduce corruption and bribery in all its forms. We cannot achieve sustainable development without tackling corruption and Alfa Laval continuously works to eliminate all forms of unethical behaviour.



Responsible sourcing

Responsible sourcing is a prioritized area for Alfa Laval. Our ambition is that all Alfa Laval suppliers live up to our Business Principles.

Performance beyond compliance

Alfa Laval is a global company with more than 40 production sites and distribution centres in Europe, Asia and America. We expect our suppliers in all these regions to act ethically and in full compliance with the applicable local regulation. Furthermore, Alfa Laval's direct suppliers are to comply with sustainability requirements in our Business Principles, which enables us to monitor and assess their capacity to meet stricter demands and to improve their overall operations. We work continuously to make this process more effective. However, we can never be completely satisfied with our progress.

Sourcing organization

Alfa Laval's global sourcing organization defines the strategy for supply and supplier management, while the responsibility for the sourcing of products and services is allocated locally. The Alfa Laval Supplier Risk and Compliance Council, with representatives from the Business Units and the global sourcing organization, ensures that suppliers follow our Business Principles and set annual improvement plans. Alfa Laval's master auditors conduct supplier audits and

support suppliers when there is a need for improvement due to non-compliance. Master auditors are also responsible for training and certifying internal auditors. Supplier managers are in charge of the ongoing dialogue with our suppliers. They implement Alfa Laval's Business Principles and follow up to enable continuous improvement.

Business Principles training for sourcing organization

The Alfa Laval Business Principles are the foundation of our sourcing process. All employees in the global sourcing organization are required to undergo mandatory training on the Business Principles. During the year, 40 managers and purchasers completed a one-day in-depth training in supplier Business Principles.

Supplier risk assessment

The sourcing organization collects data using a scorecard of critical indicators such as anti-corruption, environmental issues and working conditions. The supplier risk assessment (see figure below) includes an initial screening to ensure that we prioritize the suppliers with the highest risk of breaches of our Business Principles.

Supplier audits and action plans

During the year, internally certified auditors and third-party auditors conducted more than 100 audits to assess suppliers' social and environmental performance and compliance with our Business Principles. We follow up all cases of identified potential or actual negative impacts with an improvement action plan.

Our audit platform highlights six critical areas: child labour, young labour, forced labour, freedom of association, health and safety, fire protection and environment. Deviations in any of these areas require immediate correction, both from new and established suppliers.

Alfa Laval's main objective is to drive progress throughout the supply chain, which is why we focus on suppliers with significant deviations and high risks. Suppliers with serious breaches get a limited time to implement the necessary improvements with the support of an effective supplier development programme. If the follow-up audit shows insufficient progress, Alfa Laval has an escalation process to terminate the supplier relationship as a final resort. The most

Assessing supplier risk

The following three areas guide our risk assessment of suppliers



Country risk

Risk related to human rights breaches or bribery/corruption in the country where the supplier is based.



Product & production process risk

Risk related to occupational health and safety or environmental impacts associated with supplier production processes.



Governance & policies

Risk based on analyses and screenings of the supplier's available documentation of policies and governance.

Improved supplier healthcare in India

The annual employee health check is a central element in Alfa Laval's Business Principles for Suppliers. It is a legal requirement in India, however, non-compliance with this requirement was a major deviation in most of the audits conducted in India.

In order to address this challenge, Alfa Laval initiated a cooperation with the company's Indian healthcare providers in 2019, and now local healthcare contracts also apply to our suppliers.

In 2019, more than 300 employees of Alfa Laval's suppliers in India completed health checks, resulting in two positive effects: Alfa Laval benefits from stronger supplier relations, while suppliers improve their health and safety performance and employee satisfaction.



Supplier health check in cooperation with Lokmanya Medical Research Centre, India

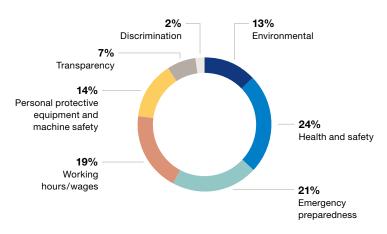
common deviations were in the areas of health and safety, emergency preparedness, working hours and wages (see the diagram below). During 2019, Alfa Laval phased out eight suppliers due to Business Principles breaches or other major deviations.

Enhanced sustainability focus

In 2019, Alfa Laval's global sourcing organization revised its strategic focus and

identified three areas of particular importance. Health and safety is vital both for Alfa Laval's sourcing organization and for our suppliers' operations. Here, the priority is given to improved processes and routines and a safer work environment. The other two focus areas for 2020 are energy efficiency/climate change and plastic.

Most common deviations in supplier audits in 2019



Conflict minerals

The Dodd-Frank Act requires companies to conduct due diligence to ensure that the minerals used in their products are not sourced from mines that finance armed groups guilty of human rights violations. Since 2013, Alfa Laval has been following the company-wide policy on conflict minerals available on www.alfalaval.com. A supplier assessment platform was launched in 2016 to increase transparency and visibility in order to identify suppliers that require an assessment. In 2019, Alfa Laval assessed and initiated dialogue with 419 suppliers to ensure compliance.

Modern Slavery Act

Forced labour and human trafficking are severe global issues with significant negative impact. Alfa Laval has zero tolerance to these issues within its organization and supply chain. Modern Slavery is included in training programmes for employees and suppliers, as well as in the monitoring, auditing and follow-up activities with suppliers. Read more in Alfa Laval's Modern Slavery Act Statement, available on our website.

Sustainable Development Goals

The core of SDG 8 is to promote decent work for all. This involves protecting labour rights and promoting safe working environments for all workers, both in our own operations and through the demands we place on our suppliers. With our zero-tolerance approach to bribery and corruption that applies to the entire supply chain, we contribute to the progress towards SDG 16.







Community involvement

Alfa Laval strives to be a good corporate citizen that has a positive impact in the communities we work in. We support local charities and volunteering projects in many countries where we are present. In this year's report, we highlight some of the many initiatives where Alfa Laval is involved, based on their contribution to the relevant Sustainable Development Goals.



Sustainable Development Goals

The icons marked on the map refer to the Sustainable Development Goals that the local projects and initiatives contribute to. Some examples are clean drinking water projects in India, an on-site school for children from poor

families in Brazil, ocean-cleaning initiatives in Norway and cooperation with NGOs and academia in Holland and Russia. More information about these initiatives can be found on alfalaval.com.





















Auditor's opinion

Auditor's opinion regarding the statutory sustainability report.

To the general meeting of the shareholders in Alfa Laval AB (publ), corp. id 556587-8054.

Engagement and responsibility

The Board of Directors is responsible for that the statutory sustainability report has been prepared in accordance with the Annual Accounts Act.

The scope of the audit

Our examination of the statutory sustainability report has been conducted

in accordance with FAR's auditing standard RevR 12 The auditor's report on the statutory sustainability report. This means that our examination of the statutory sustainability report is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. We believe that the examination has provided us with sufficient basis for our opinions.

Opinion

A statutory sustainability report has been prepared.

Lund, 9 March 2020

Ernst & Young AB

Staffan Landén Authorised Public Accountant

Karoline Tedevall Authorised Public Accountant

Global Compact Index

Global Compact Index	Principle	Page
Human rights		
Businesses should support and respect the protection of internationally proclaimed human rights	Principle 1	10, 12, 26-37, 39-47
Businesses should make sure that they are not complicit in human rights abuses	Principle 2	10, 12, 26-37, 39-47
Labour		
Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	Principle 3	10, 40
Businesses should uphold the elimination of all forms of forced and compulsory labour	Principle 4	10, 47
Businesses should uphold the effective abolition of child labour	Principle 5	10, 12, 47
Businesses should uphold the elimination of discrimination in respect of employment and occupation	Principle 6	10, 12-13, 26-27, 46
Environment		
Businesses should support a precautionary approach to environmental challenges	Principles 7	10, 12-13, 24-25, 41-44
Businesses should undertake initiatives to promote greater environmental responsibility	Principles 8	10, 12-13, 24-25, 41-44
Businesses should encourage the development and diffusion of environmentally friendly technologies	Principles 9	10, 12-13, 18-25, 41-44
Anti-corruption		
Businesses should work against corruption in all its forms, including extortion and bribery	Principle 10	10, 12, 32-33, 41



This is our Communication on Progress in implementing the principles of the United Nations Global Compact and supporting broader UN goals.

We welcome feedback on its contents.

Sustainability notes

The report covers the 2019 calendar year and focuses on material topics and activities in line with stakeholder concerns. The table below contains our GRI disclosures. Data and sustainability information for previous years are available at www.alfalaval.com/about-us/sustainability/.

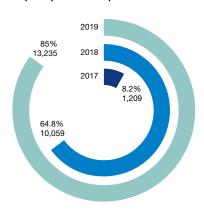
GRI St	andards	Disclosures, comments and omissions	Page
Genera	l Standard Disclosures		
Organiz	zational profile		
102-1	Name of the organization	Alfa Laval AB (publ), corporate identity number 556587-8054	
102-2	Activities, brands, products, and services		SR 3, 6-9, 14-15, 18-23
102-3	Location of headquarters	Lund, Sweden	
102-4	Location of operations		SR 2-3
102-5	Ownership and legal form	Alfa Laval AB is a publicly owned company listed on Nasdaq Stockholm. Three largest shareholders are Tetra Laval BV, Alecta and Swedbank Robur Funds.	
102-6	Markets served		SR 2-3, 6-7, 14-15, 18-23
102-7	Scale of the organization		SR 2-3, 6-7
102-8	Information on employees and other workers	Unless stated otherwise, all information in this report concerning the number of employees refers to data from the actual number of employees on 31 December for each year. The total number of employees amounted to 17,497 (17,228), of which 20.3% (20.5%) are women. The number of employees (excluding non-Alfa Laval branded acquisitions) was 15,571 (15,530) employees of which 96.6% (96.8%) were full-time and 3.4% (3.6%) part-time.	SR 3, 6, 13, 26
102-9	Supply chain		SR 34-35
102-10	Significant changes to the organization and its supply chain		SR 4-5, 13, 34-35
102-11	Precautionary Principle or approach	According to Alfa Laval's Business Principles and the corporate Environment Policy, we support a precautionary approach and establish measurable objectives for improved environmental performance and resource utilisation in order for our own operations to become as efficient as possible.	SR 10
102-12	External initiatives		SR 2, 16-17, 38-39
102-13	Membership of associations		SR 38-39
Strateg	у		
102-14	Statement from senior decision-maker		SR 4-5
Ethics a	and integrity		
102-16	Values, principles, standards, and norms of behaviour		SR 3, 6, 10-12, 24, 26-37
Govern	ance		
102-18	Governance structure		SR 11

GRI Sta	andards	Disclosures, comments and omissions	Page
General	Standard Disclosures		
Stakeho	older engagement		
102-40	List of stakeholder groups		SR 12
102-41	Collective bargaining agreements	Our Business Principles stipulate that all employees shall be free to form and to join trade unions or similar external representative organizations and to bargain collectively. The coverage varies from country to country. Globally, approximately 49% of employees are covered by collective bargaining agreements.	
102-42	Identifying and selecting stakeholders		SR 12
102-43	Approach to stakeholder engagement		SR 12
102-44	Key topics and concerns raised		SR 12
Reporti	ng practice		
102-45	Entities included in the consolidated financial statements	Entities included in Alfa Laval's consolidated financial statements can be found in the Annual Report. The entities are also covered by this report. However, the reporting on our progress towards the environmental targets includes the sites that were part of the Alfa Laval Group during the baseline year 2015.	AR 126-130
102-46	Defining report content and topic boundaries	The Sustainability Report covers the sustainability topics that are material both for the company and for our key stakeholders.	SR 12
102-47	List of material topics		SR 12
102-48	Restatement of information	No restatements of information provided in the previous reports.	
102-49	Changes in reporting	No changes in the reporting scope or method.	
102-50	Reporting period	1 January 2019 – 31 December 2019	
102-51	Date of most recent report	8 March 2019	
102-52	Reporting cycle	Annual	
102-53	Contact point for questions regarding the report	sustainability@alfalaval.com	SR 2
102-54	Claims of reporting in accordance with the GRI Standards	Alfa Laval reports in accordance with the Global Reporting Initiative (GRI) Standards: Core option. All reported GRI-Standard modules refer to version 2016, unless specified otherwise.	
102-55	GRI Content Index		SR 39-47
102-56	External Assurance	No external assurance has been undertaken.	SR 38
Specific	Standard Disclosures		
GRI 200	: Economic standard series		
Econom	nic performance		
103	Management Approach ¹	We create wealth for our stakeholders by providing our customers with innovative products and solutions. Economic value generated is distributed among a number of stakeholder groups thus benefiting the societies where we operate. Alfa Laval's annual financial reporting reflects the company's current value generation progress.	SR 6-7
201-1	Direct economic value generated and distributed		SR 7

¹⁾ Includes 103-1 Explanation of the material topic and its boundaries, 103-2 The management approach and its components, 103-3 Evaluation of the management approach.

GRI S	tandards	Disclosures, comments and omissions	
Specifi	ic Standard Disclosures		
GRI 20	0: Economic standard series		
Anti-co	orruption		
103	Management Approach ¹	Alfa Laval's work with anti-bribery and anti-corruption is a cornerstone of our business integrity. The work is defined by our Business Principles and local laws and regulations and is regularly monitored by the global complaince function.	SR 10, 12, 32-33
205-1	Operations assessed for risks related to corruption		SR 32-33
205-2	Communication and training on anti-corruption policies and procedures	Mandatory anti-corruption training for white-collar employees, held on a biennial basis, includes different scenarios with examples of dilemmas that various roles within the company may encounter.	SR 32-33

Training in anti-corruption policies and procedures for white-collar employees



GRI 30	00: Environmental standard series		
103	Management Approach 1	The following information refers to the entire section (GRI 300: Environmental standards).	SR 10, 12-13, 24-25
		The environment is a highly prioritized area at Alfa Laval regulated by the Group's Environmental Policy and Business Principles. The strategy towards 2020 refers to Alfa Laval's operations and includes targets for carbon emissions, energy and water consumption, waste recycling and the use of chemicals. The environment is also part of the supplier assessment process. The environmental impact of Alfa Laval's products is one of the most material areas for internal and external stakeholders. We report on our environmental performance in the annual Sustainability Report. The carbon emissions data and factors are in accordance with the GHG Protocol.	

¹⁾ Includes 103-1 Explanation of the material topic and its boundaries, 103-2 The management approach and its components, 103-3 Evaluation of the management approach.

GRI Standards

Disclosures, comments and omissions

Page

Specific Standard Disclosures

GRI 300: Environmental standard series

Energy

302-1 Energy consumption within the organization

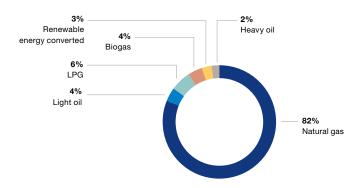
In 2019, the normalized energy consumption for comparable sites decreased by 5.3% from 2018. However, it increased by 2.8% compared with the baseline year 2015. Energy converted internally accounted for one quarter of Alfa Laval's energy consumption. Renewable energy includes biogas and renewable energy converted, which includes energy from photovoltaic systems. All other energy sources are fossil-based (non-renewable).

SR 13, 24-25

Direct energy consumption within the organization (MWh)



Energy converted internally in 2019



302-4 Reduction of energy consumption

SR 13, 24-25

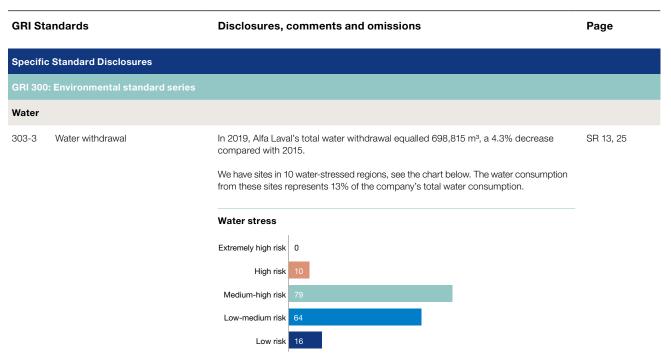
Water

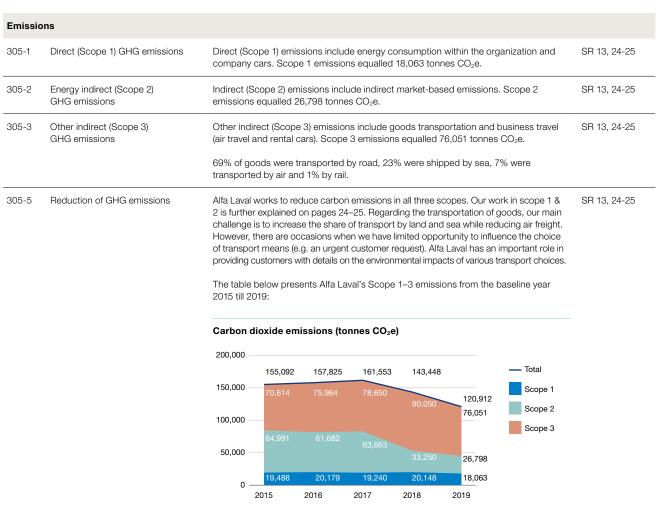
303-1 Interactions with water as a shared resource

Alfa Laval's main production processes do not require significant amounts of water. Most of the water consumed is used in the testing of our products and in service procedures. We use the World Resources Institute 'Aqueduct Water Risk Atlas' tool in our assessments of water-related impacts.

SR 13, 25

The global water action group initiated in 2018 that consists of Alfa Laval sites with the highest water consumption in water stressed areas continued its work in 2019. During the year, the data quality for water consumption has been further improved.





GRI S	andards	Disclosures, comments and omissions	Page
Specifi	c Standard Disclosures		
GRI 30	0: Environmental standard series		
Effluen	ts and waste		
306-2	Waste by type and disposal method	During 2019, Alfa Laval generated 21,603 tonnes of waste, a 15% decrease compared with 2018. 11% of waste was hazardous. Most of the waste is generated by Alfa Laval's operations. See the figure below for waste treatment methods used during the year: Total weight of waste per treatment method in 2019 20,000 Non-hazardous 15,000 14,802 964 1,149 1,189 1,018 Recycling Composting Recovery, including (mass burn) Recovery lincing (mass burn)	SR 13, 25
306-3	Significant spills	In 2019, Alfa Laval recorded no significant spills. There were two larger spills reported in 2017, that occurred in Sweden and Norway. Investigations have been conducted in conjunction with both the incidents in order to ascertain the causes of the spills and, wherever possible, to institute measures that will prevent similar spills from happening again.	
Enviror	nmental compliance		
307-1	Non-compliance with environmental laws and regulations	Legislative compliance ensures our business legitimacy. No significant fines or non-monetary sanctions regarding environmental or socioeconomic performance have come to Alfa Laval's attention during 2019.	
Supplie	er environmental assessment		
308-1	New suppliers that were screened using environmental criteria	All new suppliers in the identified risk countries were screened using environmental criteria.	SR 34-35
GRI 40	0: Social standards		
103	Management Approach ¹	The following information refers to the entire section (GRI 400: Social standards). Alfa Laval's social targets include the increase of the proportion of female employees and a reduction of LTIs and absenteeism with targets set for 2020 based on 2017 figures. The Alfa Laval Business Principles, Global Health and Safety Policy and related documents define how we work with health & safety, training, development and human rights. All legal entities must secure the necessary competence and shall identify specific training needs based on country legislation or other requirements, as well as training in the different tools such as Hazard Identification and Risk Assessment, Injury Analysis and Job Safety Analysis. The method for calculating health and safety data was recently updated. Frequency rate data is now calculated based on 200,000 worked hours.	SR 10, 12-13, 26-37

¹⁾ Includes 103-1 Explanation of the material topic and its boundaries, 103-2 The management approach and its components, 103-3 Evaluation of the management approach.

GRI Standards

Disclosures, comments and omissions

Page

Specific Standard Disclosures

GRI 400: Social standards

Employment

401-1 New employee hires and employee turnover

2,037 (2,006) employees were hired in 2019. Employee turnover was 13% (12%).

New employee hires and employee turnover

	2017		2018		2019
Number	Percent	Number	Percent	Number	Percent
1,104	7%	2,006	13%	2,037	13%
291	26%	453	23%	512	25%
1,646	11%	1,795	12%	1,957	13%
364	22%	349	19%	427	22%
	1,104 291 1,646	Number Percent 1,104 7% 291 26% 1,646 11%	Number Percent Number 1,104 7% 2,006 291 26% 453 1,646 11% 1,795	Number Percent Number Percent 1,104 7% 2,006 13% 291 26% 453 23% 1,646 11% 1,795 12%	Number Percent Number Percent Number 1,104 7% 2,006 13% 2,037 291 26% 453 23% 512 1,646 11% 1,795 12% 1,957

This table does not include non-Alfa Laval branded acquisitions.

Occupational Health and Safety

403-2 Types of injury and rates of injury, occupational diseases, lost days, absenteeism, and work-related fatalities

SR 29-31

403-8 Workers covered by an (2018) occupational health and safety management system

SR 29-31

403-9 Work-related injuries

Total figures include all Alfa Laval entities and like-for-like figures include sites in the 2017 baseline.

SR 29-31

		2017		2018		2019
	Total	Like-for-like	Total	Like-for-like	Total	Like-for-like
LTI	152	150	122	122	119	119
LTI Frequency	0.97	0.96	0.78	0.78	0.74	0.74
LWD	3,975	3,903	2,794	2,794	2,314	2,314
Absenteeism (%)	2.12	2.12	2.08	2.08	1.91	1.91

GRI Standards

Disclosures, comments and omissions

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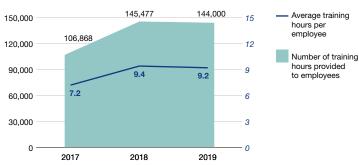
Specific Standard Disclosures

Training and education

404-1 Average hours of training per year per employee

Training hours per employee 150,000

SR 28



This table does not include non-Alfa Laval branded acquisitions.

404-2 Programs for upgrading employee skills and transition assistance programs

During 2019, a new learning management system was launched that will re-shape the way we work with the planning and assessment of trainings in the Alfa Laval Academy. In the new system, each employee will get an access to a customized dashboard that displays selected trainings and e-learnings relevant for the employee's current projects and goals. The system will be open for Alfa Laval's customers, service partners and other external parties that need to deepen their understanding of our products and solutions, which will strengthen Alfa Laval's customer offering.

SR 28

404-3 Percentage of employees receiving regular performance and career development reviews At Alfa Laval, every employee is entitled to a performance and career development review with their manager at least once a year.

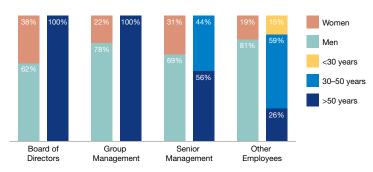
Diversity and equal opportunity

Diversity of governance bodies 405-1 and employees

Alfa Laval works to increase the proportion of women and one of the targets is to recruit 30% women.

SR 13, 26-27

Diversity of governance bodies and employees in 2019



Diversity data in the table does not include non-Alfa Laval branded acquisitions. The data for the Board of Directors is excl. employee repre

Non-discrimination

406-1 Incidents of discrimination and corrective actions taken

In the recent employee survey, 86% (86%) of the participants responded that their working group is free from any kind of discrimination and harassment. In 2019, 34% (29%) of the legal entities had projects or initiatives in place to prevent discrimination or harassment. There have not been any court cases regarding discrimination or harassment during 2019.

GRI St	andards	Disclosures, comments and omissions	Page
Specifi	c Standard Disclosures		
GRI 400	ว: Social standards		
Freedo	m of Association and Collective Bar	gaining	
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	The risk of Alfa Laval's suppliers violating worker rights to exercise freedom of association or collective bargaining is greatest in our defined high-risk countries. Three of the identified countries are China, Russia and Mexico where Alfa Laval focuses on training to create awareness.	SR 32-35
Child la	bour		
408-1	Operations and suppliers at significant risk for incidents of child labour		SR 32-35
Forced	or compulsory labour		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour		SR 32-35
Human	Rights Assessment		
412-2	Employee training on human rights policies or procedures		SR 32-35
Local C	Communities		
413-1	Operations with local community engagement, impact assessments, and development programs		SR 36-37
Supplie	er social assessment		
414-1	New suppliers that were screened using social criteria	All new suppliers in the identified risk countries were screened using social criteria.	SR 34-35
414-2	Negative social impacts in the supply chain and actions taken		SR 34-35
Custon	ner privacy		
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Alfa Laval handles the personal data of our customers and employees with due care. The main policies covering data privacy are the Alfa Laval Privacy Policy supported by guidelines related to the GDPR, and local and global HR policies. The Group Privacy Responsible works on the highest level and persons responsible for data privacy have been appointed at all Alfa Laval legal entities. They are in turn supported by each corporate function. Alfa Laval has also appointed a Data Privacy Board consisting of the Chief Information Officer, Vice President and Group General Counsel, Chief Financial Officer and Senior Vice President Human Resources. Alfa Laval has a structured approach to handling potential breaches of personal data with processes in place for reporting to the authorities and individuals involved in a breach of personal data. The organization regularly audits how personal data is	
Socio-e	economic compliance	processed or stored to assess the need for changes. In 2019, Alfa Laval did not receive any substantiated complaints concerning breaches of customer privacy or identified leaks or losses of customer data.	
419-1	Non-compliance with laws and regulations in the social and economic area	Legislative compliance ensures our business legitimacy. No significant fines or non-monetary sanctions regarding socioeconomic performance have come to Alfa Laval's attention during 2019.	



160,000,000 kWh

That's the annual amount of waste heat created by a copper smelting plant located in the Hamburg harbour area. By why let this energy just disappear into the open air?

Recently, some 3,400 new apartments have been built in the close neighbourhood – and they need power for heating. Alfa Laval is providing a sustainable connection between these two projects. By installing eight high-capacity plate heat exchangers at the smelting plant, surplus heat from the copper production can effectively be absorbed and made useful. It is delivered directly – in copper pipes, of course! – to the inhabitants of the new housing area, creating a comfortable living for them. Overall, this co-operation has boosted energy efficiency at the plant substantially, and at the same time reduced carbon dioxide emissions to the Hamburg air by some 20,000 tonnes annually.

Advancing better™

Alfa Laval is active in the areas of Energy, Food, Water and Marine, offering its expertise, products and service to a wide range of industries in some 100 countries. The company is committed to optimizing processes and creating responsible growth. We drive progress, always going the extra mile to support customers to achieve their business goals and sustainability targets.

Alfa Laval's innovative technologies contribute to enhanced energy efficiency, improved heat recovery, responsible use of natural resources, better water treatment, and reduced emissions. Thereby not only accelerating success for our customers, but also for people and our planet. Making the world better, every day. Creating a comfort zone for everyone involved.



and Marine, offering its expertise, products and service to a wide range of industries in some 100 countries. The company is committed to optimizing processes and creating responsible growth. We drive progress, always going the extra mile to support customers in achieving their business goals and sustainability targets.

Alfa Laval's innovative technologies are dedicated to purifying, refining and recycling material. They contribute to enhanced energy efficiency, improved heat recovery, responsible use of natural resources, better water treatment, and reduced emissions. Thereby not only accelerating success for our customers, but also for people and our planet. Making the world better, every day. It's all about *Advancing better*TM.

How to get in touch Alfa Laval

Contact details for all countries are continually updated on our website. Please visit www.alfalaval.com to access the information

