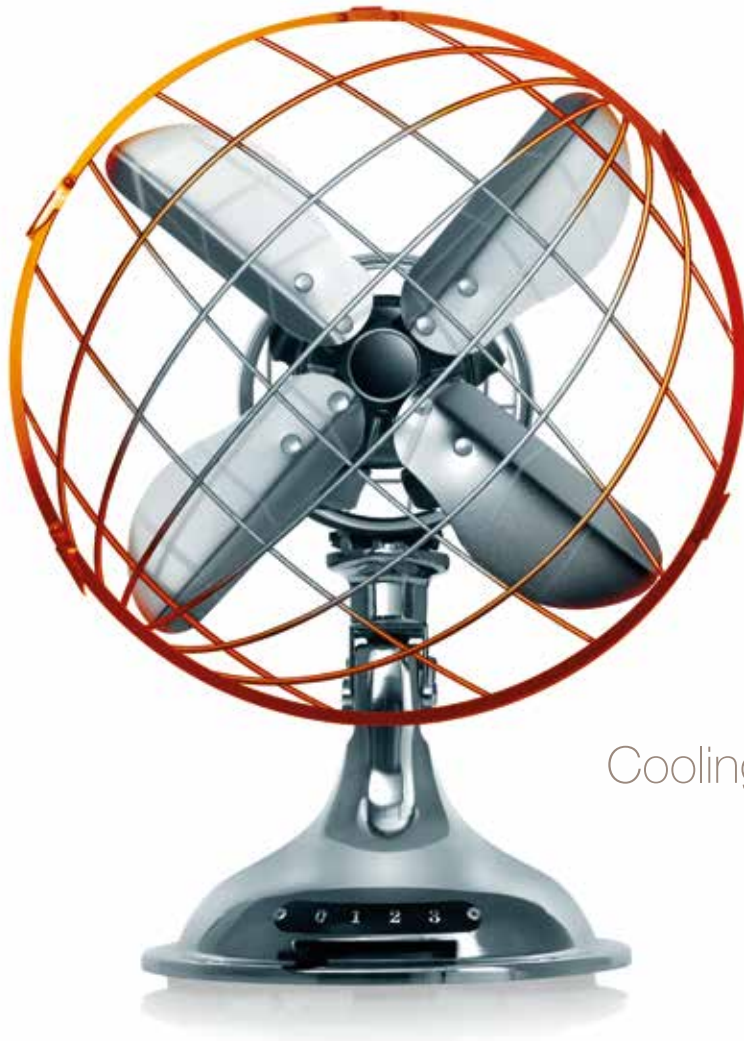




Sustainability Report 2018



Cooling down global warming

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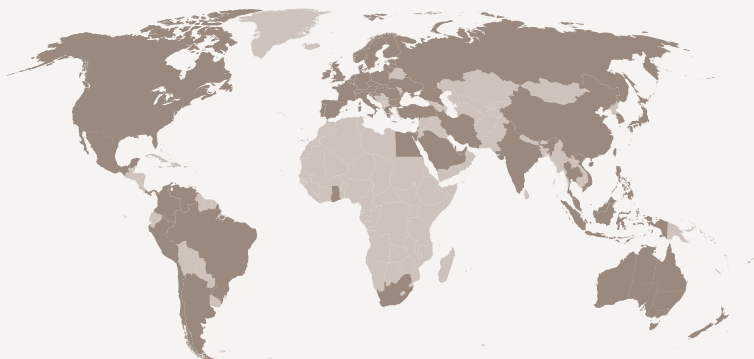
About the report

Alfa Laval has been a signatory to the UN Global Compact since 2011, and complies with its ten principles for responsible business. The Sustainability Report is Alfa Laval's annual Global Compact Communication on Progress about how we live up to, and work with, these principles. This is the first year Alfa Laval reports on sustainability activities in accordance with the Global Reporting Initiative (GRI) Standards: Core option.

This report together with the risk section in the Alfa Laval Annual Report 2018 fulfil the requirements in the Swedish Annual Account Act.

Contact

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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.

To optimize the performance of our customers' processes — time and time again

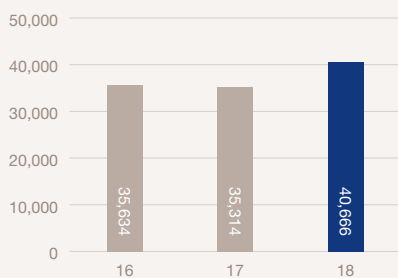
Alfa Laval is a leading, global provider of first-rate products in the areas of heat transfer, separation and fluid handling. With these as its base, Alfa Laval aims to help enhance the productivity and competitiveness of its customers in various industries throughout the world. We define their challenges and deliver products and solutions that meet their requirements — mainly in energy, the environment, marine and food.



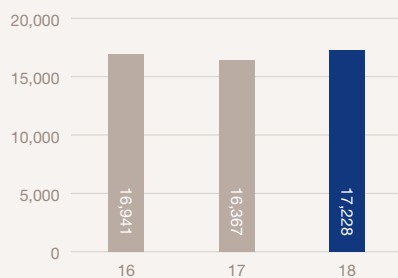
Three industry-based divisions:
Food & Water, Energy and Marine, with a shared supply chain

Net sales

MSEK



Number of employees at year-end



Ten largest markets

Order intake	MSEK	%*
United States	6,810	15.1%
China (incl Hong Kong)	6,003	13.3%
Nordic	4,409	9.8%
Korea, South	3,945	8.8%
Japan	3,212	7.1%
Adriatic	2,637	5.9%
South East Asia	2,337	5.2%
Mid Europe	1,972	4.4%
Benelux	1,360	3.0%
India	1,169	2.6%

* Percentage of total order intake

“

It is essential to realize that waste is the enemy of sustainability and, seeing it from this perspective, there are only upsides to working with sustainability.”



Interview with our CEO

What does sustainability mean to Alfa Laval?

Sustainability is first of all a business opportunity for Alfa Laval. Our products and solutions enable our customers to tackle their environmental challenges be it by cleaning or reusing water, increasing energy efficiency or ensuring that their processes are more resource efficient. Equally important is our internal work with sustainability. By implementing our Business Principles, we can, for example, minimize our own environmental footprint and optimize working conditions in our supply chain.

How does sustainability fit into Alfa Laval's business strategy?

It is today a pronounced priority, partly driven by external trends and stricter legislation and partly by the realization of business opportunities in this area. Sustainable performance has always been a key value of our products and in our development process we strive to make new products more efficient than their predecessors, from a life cycle perspective. With our strong market position, we prepare for the future, with emphasis on applications connected to the environment and energy.

What are the greatest challenges in achieving Alfa Laval's sustainability goals?

In order to remain a successful business, we need to continue to grow while respecting the planetary boundaries. We struggle with decreasing our environmental impact in absolute terms when our business is growing very fast. Two examples are ambitious energy consumption and carbon emission targets towards 2020 that are absolute, which means that they are not relative to our production levels. As our business grows and has a greater positive impact on our customers, we use more energy in our own production. It's positive on a global level that our business grows and we contribute but we need to become even more efficient internally. One of the actions taken during the year was to implement KPIs for energy in all our production sites to increase the focus on efficiency. Key measures to promote our carbon emission target during the year included investing in solar panels to generate electricity in one of our factories in China and increasing the proportion of renewable electricity we source.

Which sustainability achievement are you most proud of from 2018?

The work in the supply chain with dedicated effort to focus, follow up and secure the improvement of our direct suppliers in high-risk countries stands out. To take one example, we have launched a sustainability development programme with certain suppliers in selected markets and these have so far resulted in significant improvements in areas such as health and safety as well as environmental performance. This work is of course never ending

and challenging, but I believe the progress we are making in this area is beyond what companies normally manage to achieve. We continue our work to implement the ten principles of the UN Global Compact. In addition, Alfa Laval contributes positively to many of the UN Sustainable Development Goals as presented in the coming pages of this report. Today, I would say energy efficiency is our most significant contribution at the global level, which makes a positive difference both to energy use and carbon emissions compared to many other companies. Our products also contribute to cleaning water and from a business point of view, we believe we can develop this area even more.

What are the main priorities going forward?

If we don't run our operations in a safe way, the rest doesn't matter. The main priority for 2019 is therefore to improve our health and safety performance. We have been working with health and safety in many parts of the organization, but it has not received the attention it deserves. Today, it is higher up on our agenda and consciousness. We realize that if we don't make changes to our safety culture, we will never achieve a satisfactory safety level. Beginning early next year, we will introduce and implement "I care", which is an initiative to continuously improve our safety culture. This includes setting clear standards and supporting managers with the necessary tools to ensure this behavioural shift.

What opportunities/challenges can you see in integrating sustainability into the company?

Sustainability cannot be seen as an independent part of a business. It is essential to realize that waste is the enemy of sustainability and, seeing it from this perspective, there are only upsides to working with sustainability. When an organization becomes efficient, the pressure on natural resources reduces as well. This automatically reduces costs and improves profitability. Sustainability should therefore be integrated into all parts of the business, be it design, sales or production — to maintain profitability and to reduce pressure on scarce resources. In Alfa Laval's case, sustainability is also a key part of our business as our products help our customers to both improve environmental and bottom line performance.

Lund, February 2019



Tom Erixon
President and CEO

Our business

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: Food & Water, Energy, and Marine.

Resources

58,072

Total assets, MSEK

17,228

Employees

>100

Production and service operations

1,020

R&D investments, MSEK

267,976

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 specialises 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, as well as several different environmental-related products and systems.

Outcomes

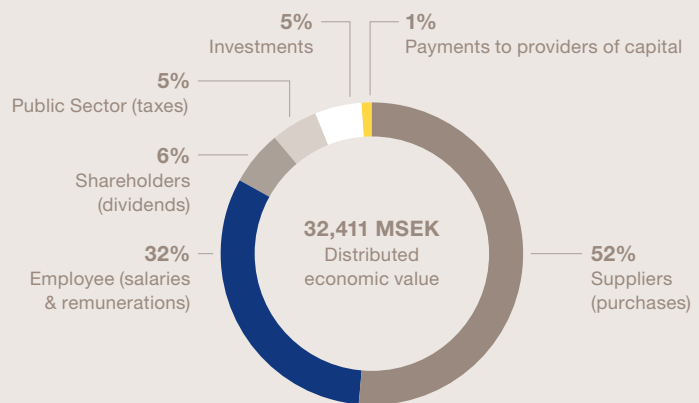
40,666
Net sales, MSEK

>3,500
Patents

5,831
Operating income, MSEK

46,028
Carbon emissions, tonnes CO₂e

Economic value distributed





Strategy and governance

Our Business Principles define the way we should act in society whilst achieving our business goals. The Business Principles – social, environmental, 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.



Social – Respect for human rights

Respect for human rights is fundamental. Ensuring good working conditions is an essential part of this work and we have zero tolerance of child and forced labour. One of our primary priorities is to prevent workplace accidents in all our premises. Our vision is a workplace free from accidents and work-related illness. Read more about this work in the health and safety section on page 26.

Business Integrity – High ethical standards

Our performance is governed by high ethical standards and the principle is based on following all relevant laws where we operate. Read more about our focus on anti-bribery and anti-corruption on page 32.

Environment – Optimizing the use of natural resources

We work to use energy and water efficiently in our production and service operations. Equally important is our ability to provide products, service and solutions that can

optimize our customers' use of natural resources. Read more on pages 14–23.

Transparency – Commitment to open dialogue

Alfa Laval's ambition is to build trust through open dialogue with our various stakeholders, including sustainability opportunities and challenges. Read more about our stakeholder dialogues and materiality assessment on page 36.

Governance

Our Business Principles together with other policies guide our employees in their everyday work. Many international guidelines form the source of the Business Principles including the OECD's Guidelines for Multinational Enterprises, the United Nations Guiding Principles on Business and Human Rights and the United Nations Global Compact.

The 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. Our Managing Directors 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.

Whistle-blowing system

All employees at Alfa Laval are entitled to a safe and fair working environment where everyone is treated with respect and in accordance with our Business Principles. Primarily we encourage our employees to resolve work-related issues and disagreements through an open dialogue. If this is not possible for any reason, a Group-wide whistle-blowing system enables stakeholders to report suspected breaches of our Business Principles. Both internal and external stakeholders can report breaches anonymously without repercussions.

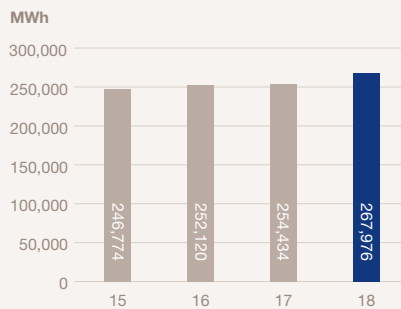
Targets and target achievements

Alfa Laval's environmental and social targets aim to drive efficiency and behavioural change to achieve higher results in the long term. The graphs presented are a selection of the Groups' sustainability targets. Progress on Alfa Laval's sustainability targets is presented in more detail within each section of the report.

Environmental targets by 2020

Energy consumption

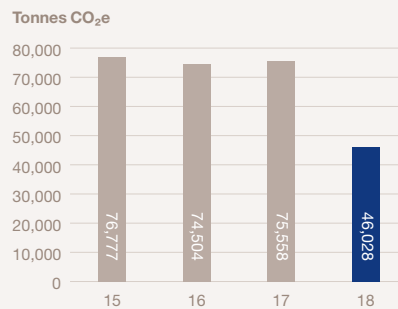
Target: Reduce energy consumption by 10% between 2015 and 2020.



Energy consumption increased by 8.6% compared to 2015. The increase is mainly attributable to increased production.

Carbon emissions

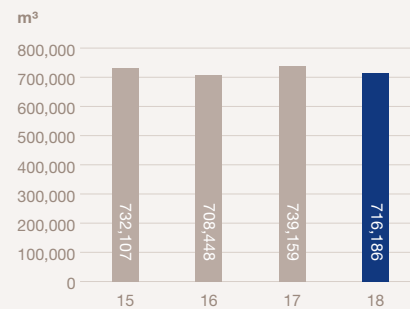
Target: Reduce carbon emissions by 15% between 2015 and 2020.



Carbon emissions from energy consumption decreased by 40% compared to 2015. The decrease is a result of changed electricity agreements, from fossil-based to renewables.

Water consumption

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

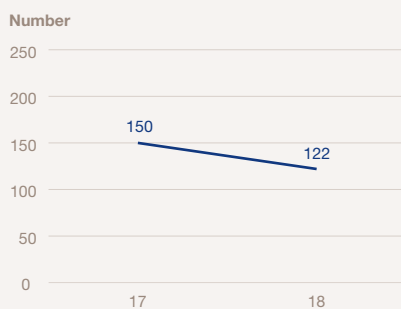


Water consumption decreased by 2.2% compared to 2015. Projects will be implemented in China, India and US to reduce water consumption in these water scarce areas.

Social targets by 2020

Accidents

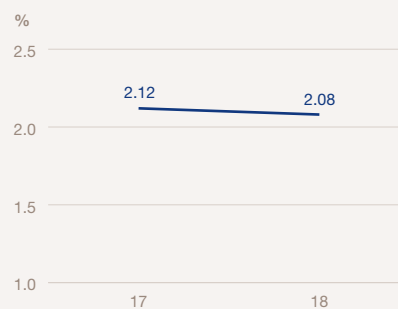
Target: Reduction of Lost Time Injuries by 30% between 2017 and 2020.



Reduction of Lost Time Injuries by 19% compared to 2017. The improvements are a result of several actions taken both at local and global levels. Among them are investment in safe equipment, improved procedures and work to improve safe behaviour.

Absenteeism

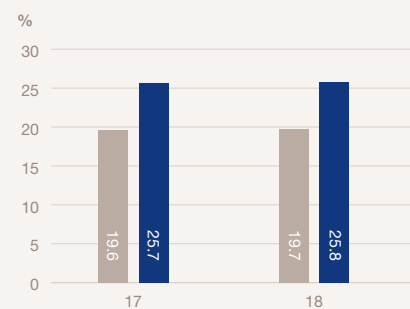
Target: Reduction of absenteeism by 6% between 2017 and 2020.



The absenteeism decreased by 1.9% compared to 2017. We will continue to work proactively to reduce the absenteeism during 2019.

Gender equality

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



In 2018, the proportion of women employed in the company (excl. non-Alfa Laval branded acquisitions) was 19.7%. Alfa Laval works to increase the proportion of women and one of the targets is to recruit 30% women. In 2018, the proportion of new recruits was 23%.

■ Employees ■ Senior Management

The charts present the like-for-like figures to enable relevant comparisons. Read more about our targets and ambitions within health and safety, employee satisfaction, career development and diversity on pages 24–27. Read more about our progress and other environmental targets on page 22.

Societal changes create demand

The world is changing and with change comes new opportunities. Global trends in the area of food, transport and energy, are creating new opportunities for growth. These structural changes include: the search for more sustainable methods of energy generation due to rising energy needs; a growing middle class that is creating greater demand for processed foods; environmental legislation imposing increasingly stringent requirements on emissions to air and water; and international trade creating a need for marine transport solutions.





Energy

The world's energy needs are continuing to grow. There are two ways to manage this challenge: increase the total energy generation and make greater use of technologies that enable greater efficiency or recycling of the energy generated.

Opportunities

Alfa Laval offers products and solutions for oil and gas exploration, power production, renewable fuels, refinement and much more. Alfa Laval products play an important role in efforts to make the world's industrial processes more energy efficient.



World trade

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

Opportunities

Alfa Laval has provided the marine industry with equipment for 100 years — from engine room separators for cleaning fuel, to heat exchangers for generating freshwater and pumping systems for efficient loading and unloading. Alfa Laval offers various solutions that reduce impact on the environment, including systems for treating ballast water or reducing the sulphur content in ship exhaust gas.



Environment

Human impact on the environment is driving new and increasingly stringent laws. In parallel with this, a sustainability mindset has also evolved and is encouraging companies to take voluntary steps that contribute to environmental improvement.

Opportunities

Alfa Laval has a wide range of products for managing various environmental challenges such as reducing energy use and the treatment of wastewater — both in municipal water treatment plants and in industrial processes.



Food

The growing middle class and urbanization are two global megatrends that are continuing at an undiminished rate. This is, for example, contributing to increasing demand for ready-made food and the development of more efficient supply chains with the capacity to reduce waste.

Opportunities

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

World-leading in three key technologies

Alfa Laval's operations are based on three key technologies — heat transfer, separation and fluid handling. These technologies play a key role in a number of industrial processes and Alfa Laval commands a world-leading position in all three areas. In 2018, heat transfer products accounted for 44 percent of sales, separation products for 18 percent and fluid handling products for 23 percent.

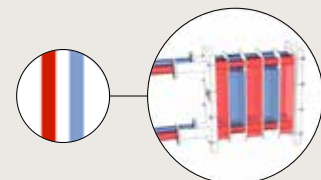
Heat transfer

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 — often liquids. These flow on either side of the thin plates and in opposite directions to each other, resulting in a heat transfer between the media.



Two media at different temperatures flow on either side of thin plates and in opposite directions to each other resulting in heat transfer between the media.

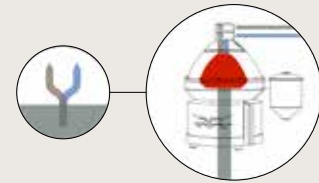
Separation

Separation is the technology that represents the origin of the Alfa Laval we see today. 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.

With precision and a high degree of reliability, liquids, solid particles and gases

are separated from one another. 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.



Centrifugal force makes it possible to separate liquids, solid particles and gases from one another with reliability, precision and speed.

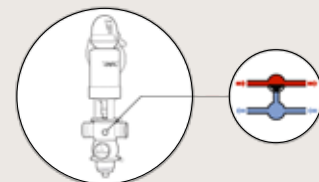
Fluid handling

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. The 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.



Two liquids can flow in the same valve without coming into contact with each other, enabling the creation of flow systems where cleaning and production can take place in parallel.

Contributing to the UN Global Goals

The United Nations has adopted 17 Sustainable Development Goals for 2030, known as the Global Goals, that world leaders have pledged to achieve. Alfa Laval contributes to progress by continuously improving our own sustainability performance and enables change by supporting customers to reach their environmental targets.

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.

2 Zero hunger

Alfa Laval products and solutions improve shelf life, reduce waste and make food production hygienic and safe.

3 Good health and well-being

Alfa Laval delivers efficient, hygienic equipment improving sustainable performance in the pharmaceutical industry.

4 Quality education

Alfa Laval is committed to ensure competence development in our own business. We also support charities and volunteering projects related to child education across the globe.

5 Gender equality

Diversity and inclusion are key priorities for Alfa Laval and the aim is that the composition of employees reflects the geographic markets where we operate.

6 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 and fresh water across the globe.

7 Affordable and clean energy

Alfa Laval products are involved throughout the renewable energy production process, from heating and cooling to mixing and separation.

8 Decent work and economic growth

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

9 Industry, innovation and infrastructure

Alfa Laval invests heavily in research and development, launches between 30–40 new products per year and has over 3,500 patents.

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. In this report we highlight how some of our products and solutions have supported our customers to meet environmental legislation and improve energy and water efficiency. See three product cases where Alfa Laval enables change on pages 16–21.

11 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.

12 Responsible consumption and production

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

13 Climate action

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

14 Life below water

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

15 Life on land

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

16 Peace, justice and strong institutions

Alfa Laval has a zero-tolerance approach to bribery and corruption. Our programme builds on the six steps outlined in the UK Bribery Act and is based on a "prevent, detect and correct" methodology.

17 Partnership for the goals

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



Customer magazine focuses on the Global Goals

The international customer magazine, Here, includes the latest insights, analysis and inspiration from the world of Alfa Laval. The magazine contains customer cases, trends and latest innovations. The magazine number 36 is dedicated to UN Sustainability Development Goals and describes how Alfa Laval products and solutions enable customers to contribute to the Global Goals. The magazine is available at www.alfalaval.com

Promoting water efficiency in the food industry

Water scarcity affects more than 40 percent of the global population and is expected to have an even greater impact in the future as the global population increases and climate change affects water availability. The production of food and medicine requires significant amounts of water, not least for cleaning during production processes to secure food safety and product quality. Water efficiency measures in production are necessary to mitigate water scarcity and its effects.



The production of food and medicine requires significant amounts of water — both in the products themselves and in production processes. Cleaning is essential in the food industry to secure food safety and product quality. Being an integral part of the production cycle, cleaning also has a major impact on overall performance including the ability to reduce energy, water and chemical consumption.

One stage of the production process that uses large amounts of water is the cleaning of tanks. There are more than one million stainless steel tanks installed in food and pharmaceutical companies around the world. Tanks are used for many different applications such as storing raw milk, performing yeast propagation in making beer and to store finished products. The vast majority of processing happens in batches. Regardless of how they are used, all tanks need to be cleaned. Alfa Laval offers different technologies to do this. Using rotary jets to clean the tanks achieves a reduction in water consumption of more than 50% compared with alternative technologies.

Another water consuming phase in hygienic processes is the cleaning of valves. Valves need to be 100% clean before commencing the next product batch. A large beverage, brewery or dairy plant has several hundred valves. Alfa Laval has comprehensive knowledge to support customers in understanding how to optimize the cleaning procedure of the valves. One example of the impact of this optimization comes from a large dairy in the UK. Alfa Laval has installed more than 800 Unique Mixproof Valves in this dairy. By optimizing the cleaning procedure of the Unique Mixproof Valves, i.e. the use of seat lift and seat push, a third-party validation has shown that more than 10 million litres of water are saved every year in this dairy.

>10 million litres
in water savings

Alfa Laval Unique Mixproof Valve can be optimized to reduce the water used when cleaning the seals and seats of the valve.



Sustainable Development Goals

By cleaning and reusing water, Alfa Laval's products contribute to achieving Global Goal 6 'Clean Water and Sanitation', Goal 9 'Industry, innovation and infrastructure', Goal 11 'Sustainable cities and communities' and Goal 12 'Responsible Consumption and Production'.



Energy efficiency in cities

High-rise buildings play an important role in accommodating growing urban populations around the world. Buildings use energy during their operation, not the least for heating and cooling. As cities consume over two-thirds of the world's energy and account for more than 50% of global CO₂ emissions it is essential that we transform the way we build and manage our urban spaces.





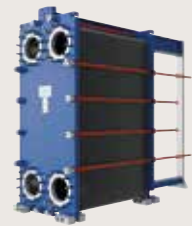
In 2018, St Petersburg in Russia became home to the tallest building in Europe — the 462 metre high Lakhta Center. The building is just one of many around the world using Alfa Laval technology for climate control. Others include the Burj Khalifa in Dubai, the Shanghai Tower in Shanghai and the Bank of America Tower in New York.

Both the construction and the continued operation of the skyscraper have bold targets when it comes to the building's environmental impact. One of the most distinguishing features of the Lakhta Center is its double facade skin, which provides thermal insulation and natural ventilation. It is estimated that the facade will reduce the building's heating and air conditioning needs by 50%. In addition, conventional heating devices have been replaced by infrared radiators that can reuse heat emitted from other devices, and sensors automatically optimize temperature and lighting according to the number of people in each room.

Among the Lakhta Center's energy-saving solutions are 61 Alfa Laval gasketed plate heat exchangers, which will be used for heating, ventilation, hot water and air conditioning. Due to their high heat-transfer efficiency, the heat exchangers will minimize heat loss.

~40%
energy savings

Alfa Laval gasketed plate heat exchangers for air conditioning and heating applications save up to 40% energy compared with other solutions.



Sustainable Development Goals

By improving energy efficiency and reducing carbon emissions, Alfa Laval products contribute to achieving several of the UN Global Goals. Energy efficiency and reducing the use of fossil fuels are part of achieving Goals 7, 9, 11, 12 and 13.



Protecting marine ecosystems

Invasive species, transported into new ecosystems via the ballast water of ships, cause severe and often irreversible damage to marine environments and the economies that depend upon them. With well over 75,000 ships in transit worldwide, it's imperative to combat this threat.



Water is pumped into a ship's ballast tanks to provide stability during transit, then pumped out again when the ship takes on cargo. Unfortunately, the pumps take in eggs, larvae and microorganisms as well that can be transported far beyond their native habitat. On any given day, the ballast water in transit aboard the world's fleet may contain 10,000 different species.

Most of these organisms perish while in transit. But when they survive, they can pose serious risks to local ecosystems, human health and regional economies. The result may be toxic algae tides, clogged waterways or the collapse of indigenous aquatic populations. Invasive comb jellies have depleted fisheries in the Caspian Sea, for example, while the United States has spent billions of dollars fighting invasive zebra mussels in the Great Lakes and beyond.

The key to stopping marine invasions is ballast water treatment, an application where Alfa Laval PureBallast has led the way for more than a decade. PureBallast uses enhanced treatment with UV light to neutralize the organisms present in ballast water, ensuring that they cannot survive and multiply in their host location. The process is simple, clean and chemical-free, which means it is safe for ship crews and poses no additional threat to the marine environment. Treatment occurs as a natural part of the ship's ballast water operations, without excessive energy use or the creation of residual by-products.

Protecting marine and coastal ecosystems

Alfa Laval PureBallast protects marine and coastal ecosystems by preventing the introduction and impact of invasive alien species.



Sustainable Development Goals

PureBallast addresses several Global Goals, most notably Goal 14 Life Below Water. The goal includes protecting marine and coastal ecosystems to avoid significant adverse impacts, as well as maintaining overall marine health and biodiversity. Although PureBallast is a marine solution, it also addresses Goal 15 Life on Land, which is frequently dependent on nearby water bodies and connecting waterways. This goal refers to preventing the introduction and impact of invasive alien species, not only on land but also in marine ecosystems.



Environment

Alfa Laval works to optimize the use of natural resources in both 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 our waste management processes in our production and service operations.

Energy and renewables

The environmental targets for 2020 include reducing energy consumption by 10% and carbon emissions by 15% compared with 2015. To ensure Alfa Laval achieves its carbon emission target, we work to increase the proportion of renewable electricity used. In 2018, 64% of Alfa Laval's electricity was sourced from renewable sources, compared with 27% 2015. During the year, we changed electricity agreements at several sites. We focused on sites where electricity was generated from coal or other fossil fuels to optimize carbon emission savings. In 2018, six of our large operation sites in China and India began to source 100% of their electricity from renewable sources.

Other activities are ongoing at Alfa Laval with the aim of reducing carbon emission and energy consumption. These activities include using energy as a key performance indicator in all manufacturing sites, which is monitored monthly, and a newly established cross-company energy group that focuses on sharing best practice.

Water management

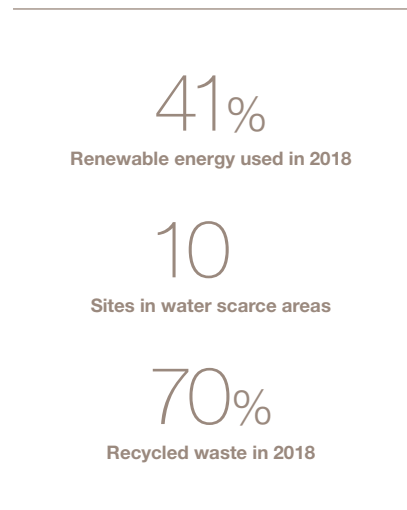
Alfa Laval's main production processes do not require significant amounts of water.

Most of the water consumed is used in the testing of our products and in their servicing. The target is to reduce water consumption with 10% by 2020 compared with 2015. In 2018, the water consumption was reduced by 2.2%. Even if the trend is turning, we are still not satisfied. The challenges to reduce water consumption are increased production and increased testing at several of our sites. Alfa Laval continues to concentrate its efforts on sites situated in regions where there is water scarcity.

A global water action group was initiated during the year, including sites with the highest water consumption in geographic areas of high water stress. The sites we are prioritizing are located in India, China and certain areas of the USA. The focus for the group is to implement action plans to reduce water use. Read more about the sites in water scarce areas in the Sustainability notes on page 36.

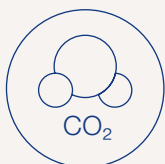
Waste and chemical management

Alfa Laval has the objective to recycle 85% of the waste generated in its operations by 2020. In 2018, Alfa Laval operations recycled 70% of waste. Alfa Laval has a robust material

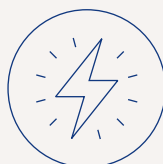


and chemical selection process for its products and we work to reduce the use of substances of very high concern and to eliminate chemicals listed as banned in our Black and Grey list. The list follows the regulations in our area of business and sometimes goes beyond the requirements of national legislation. The use of chemicals listed as banned decreased by 56% compared with 2017. The decrease was

Environmental targets 2020 with baseline 2015



Reduce carbon emissions by 15%



Reduce energy consumption by 10%



Reduce water consumption by 10%



No banned chemicals



Recycling 85% of waste

Environmental targets

The Alfa Laval Group has five environmental targets towards 2020. These are to reduce energy and water consumption, decrease carbon emissions, eliminate banned chemicals and increase waste recycling. The Alfa Laval Environment Policy and Environmental Strategy towards 2020 apply to the entire Group.



mainly due to a change of method for removing paint in service centres. Removing the paint mechanically has enabled us to phase out dichloromethane. During 2018, we improved the follow-up process and created training to enhance understanding and reporting.

Goods transportation

The goal for goods transportation is to reduce carbon emissions by 15% by 2020 compared with 2015. During the year, emissions from goods transportation amounted to 61,931 tonnes of CO₂. Goods transportation emissions per tonne-kilometre were 110 gram/tonne-km compared with 92 in 2015. Our progress is currently not satisfactory, as our carbon emissions from goods transport increased due to greater transport need and more air freight compared to sea freight.

“ We use Alfa Laval’s heat exchangers to optimize the cooling function in the system. It’s very satisfying that we use our own products to improve energy efficiency and thereby reduce carbon emissions.”

Johan Åhlund, Real Estate Manager

One of Alfa Laval’s oldest manufacturing sites is situated in Eskilstuna, Sweden. Even though there has been an increase in production, the site has managed to reduce its energy consumption by over 12% compared with 2015. Johan Åhlund works as a Real Estate Manager at the site in Eskilstuna and has been a driving force in this development. One project he is particularly proud of is the implementation of geothermal cooling that has so far reduced energy consumption by 1,250 MWh. The site also uses 15 Alfa Laval heat exchangers.

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 Goal 7 “Affordable and clean energy”, Goal 12 “Responsible consumption and production” and Goal 13 “Climate action”.



Employees

Alfa Laval is committed to be an attractive employer by offering our employees engaging career and development opportunities.

Career development

Being a multi-faceted company with a diverse range of products within various application areas, industries and countries means that we can offer our employees many engaging career and development opportunities. Alfa Laval uses an open internal recruitment process that encourages mobility within the Group. Available positions are published on the intranet and all employees are welcome to apply. This open process creates an inclusive environment with equal opportunities for professional development.

When it comes to personal development, our employees are in the driving seat. An important part of our employees' skills development takes place in their daily work and in various types of interactive relationships with more experienced colleagues, managers or mentors. In addition, formal training programmes complement the daily learning experience.

Training programmes

We provide all our employees with training in several different areas through our own training platform. The platform includes a broad range of courses from basic training to advanced training in areas such as leadership and project management. Some courses are offered locally and others as part

of a global training programme. In 2018, the global programme included 866 courses. More than 11,500 employees participated in the courses offered through the learning portal in 2018. The average hours of training per employees was 9.4 hours compared with 7.2 hours the previous year.

One example of a training programme is EDGE that focuses on competence development for project managers. The programme was first launched in 2016 and 270 project managers have since participated. The training includes a mix of classroom, virtual training and on-the-job activities that lead to new ways of working.



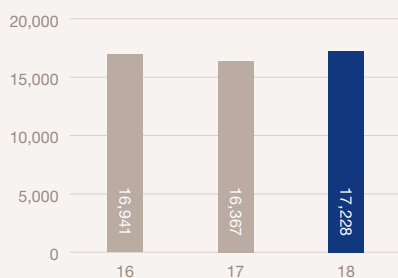
Diversity promotes growth

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. Our work with diversity helps us ensure that the composition of employees reflects the geographic markets where we operate. At end of 2018, 17 nationalities were represented within the senior management and 100 nationalities within the Group.

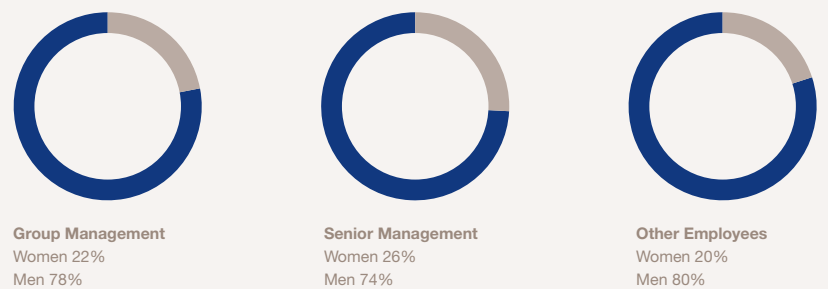
Alfa Laval's "Diversity for growth" strategy includes equal career opportunities. Gender equality is an

important aspect of this strategy. 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 20.5% (20.2) and the proportion of female managers was 20.5% (19.9). Alfa Laval works to expand the recruitment base for female management positions by employing a greater proportion of female graduates.

Number of employees (2016–2018)



Gender balance (2018)



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



The mentorship programme gave me a broader perception of Alfa Laval and its overall strategy. It has been a great opportunity to develop my leadership and confidence.”

Sara Billo, Quality Health Safety and Environment Manager



Impact — Alfa Laval’s development and mentorship programme

Alfa Laval’s “Diversity for growth” strategy, includes equal career opportunities to support women in their career development within the company and to create a dynamic and diverse working environment to sustain successful business. 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. Twelve employees participated in the mentorship programme during the year.

Employee Satisfaction

Every year Alfa Laval conducts an employee survey that includes aspects such as employee motivation and satisfaction. The 2018 employee survey showed that our employees are highly motivated and confident about the future success of Alfa Laval. The results states that 80% of all employees feel engaged. This figure is 2%-points higher than last year and more than 10%-points higher than the benchmark within our industry. The survey indicates that our company

purpose contributes to increasing employee engagement. In other words, employees are motivated by being a part of “creating everyday conditions for people”.

The Alfa Laval DNA was established in 2017. It summarizes the characteristics of our company, what has made us a strong brand and provides guidance on how we need to act in order to drive solid organic growth. The purpose of the DNA is to provide direction, help drive the cultural changes needed for a successful implementation of our new strategy and

to support in attracting, retaining and engaging employees.

An appreciated employer

For the sixth year in a row, Alfa Laval has been voted one of Sweden’s top 30 employers. The employer branding company Universum, conducts an annual survey among around 150 large companies. The employees working for each of the participating companies are asked to assess their employer on a wide range of criteria.

Sustainable Development Goals

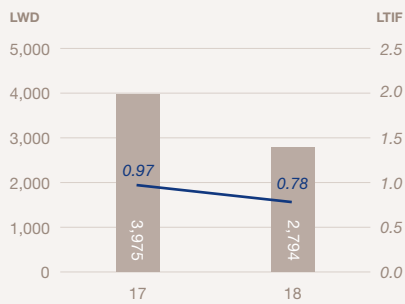
Alfa Laval has more than 16,000 employees globally. As a large employer, we contribute to Goal 4 “Quality education” and Goal 5 “Gender equality”. Our employee philosophy includes four important components:

- 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





Injuries



Figures include all entities.
 ■ Lost Working Days
 — Lost Time Injury Frequency

Health and safety indicators

	2018 Total	2018 Like-for-like	2017 Total	2017 Like-for-like
Lost Time Injury ¹⁾	122	122	152	150
Lost Time Injury Frequency ²⁾	0.78	0.78	0.97	0.96
Lost Working Days ³⁾	2,794	2,794	3,975	3,903
Absenteeism (%) ⁴⁾	2.08	2.08	2.12	2.12

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

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

Alfa Laval's safety vision is "We return home safely – every day". This vision 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 Occupational Health and Safety 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 towards 2020 is to reduce Lost Time Injuries (LTIs) by 30% compared with 2017. For those sites with zero LTIs, the ambition is to maintain zero. In addition, we have an annual target to reduce absenteeism by 2%.

Tragically, Alfa Laval had one fatality during 2018, which resulted from an accident in Alfa Laval's Krakow factory. The accident should not have happened, and we are working to ensure it never happens again.

The total number of LTIs was reduced to 122 (152) and the like-for-like number of accidents was 150. The total number of Lost Working Days decreased to 2,794 (3,975). Absence among Alfa Laval's employees due to illness or work-related accidents was reduced to 2.08% (2.12%). During 2018, Alfa Laval focused on enhancing health and safety performance in three main areas: safe behaviour, investments in protective equipments, and the development of safe procedures.

Focus on safe behaviour

Promoting behavioural change is necessary to create a safety culture in the workplace. At Alfa Laval, we use a method

known as 3PR (three prioritized safety risks) at our facilities. Using this method, employees are made aware of existing and prioritized risks and the importance of their own behaviour and attitude towards the risks in reducing the number of accidents. This method has been implemented with a priority focus on sites that have had the largest number of injuries (LTIs). At these sites, we have noted that the focus on behavioural change has made a positive impact on reducing injuries.

"Stop-Think-Act" is another method implemented to promote awareness and safe behaviour. It is a behavioural tool used by Field Service Engineers to emphasize the importance of performing a last-minute risk analysis just before starting work. Stop-Think-Act has been implemented worldwide. Our assessments highlight that the concept has contributed to an increased safety awareness, which has led to safer behaviour and reduced risk of injury.

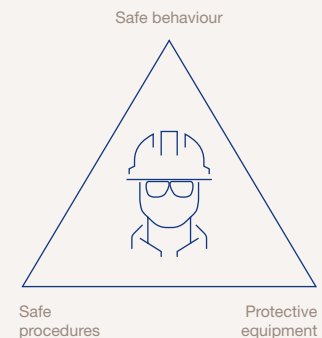
Investments in safe machines and equipment

During 2018, Alfa Laval has invested in improving the safety of machines and equipment. Investments in tanks and safety equipment for degasketing with liquid nitrogen and machine guarding for decanter balancing machines have been given priority.

Global safety standards

The development of standardized procedures for all service operation sites has focused on safe procedures for degasketing with liquid nitrogen and safe handling of hazardous materials. To ensure reduced safety risks, we will continue to develop global safety standards in the coming years.

Priorities to improve health and safety



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. Alfa Laval's work is based on continuous improvement and development through systematically working to improve health and safety. Local conditions determine the nature of the actions implemented to improve health and well-being. Examples include company sponsored exercise for employees during their free time and ergonomics training.

Sustainable Development Goal

Global Goal 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 a highly prioritized areas for Alfa Laval.



Community involvement

Alfa Laval strives to be a good corporate citizen that has a positive influence on 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 initiatives managed by Alfa Laval in India.



Education

Education is a key to development and opportunities for otherwise underprivileged children. This is why Alfa Laval supports educational initiatives for children to bring about wider community development.

At corporate level, Alfa Laval has chosen to support Pratham, which is an innovative learning organization that improves the quality of education in India. As one of the largest non-governmental organizations in the country, Pratham focuses on high-quality, low-cost, and replicable interventions to address gaps in the education system.

Alfa Laval India supports various initiatives to promote education and develop the supporting infrastructure. One project the company has focused on empowers girls through education by

providing 40 girls in India scholarships for five years. The project has also installed solar panels on four school buildings and created a modern library.

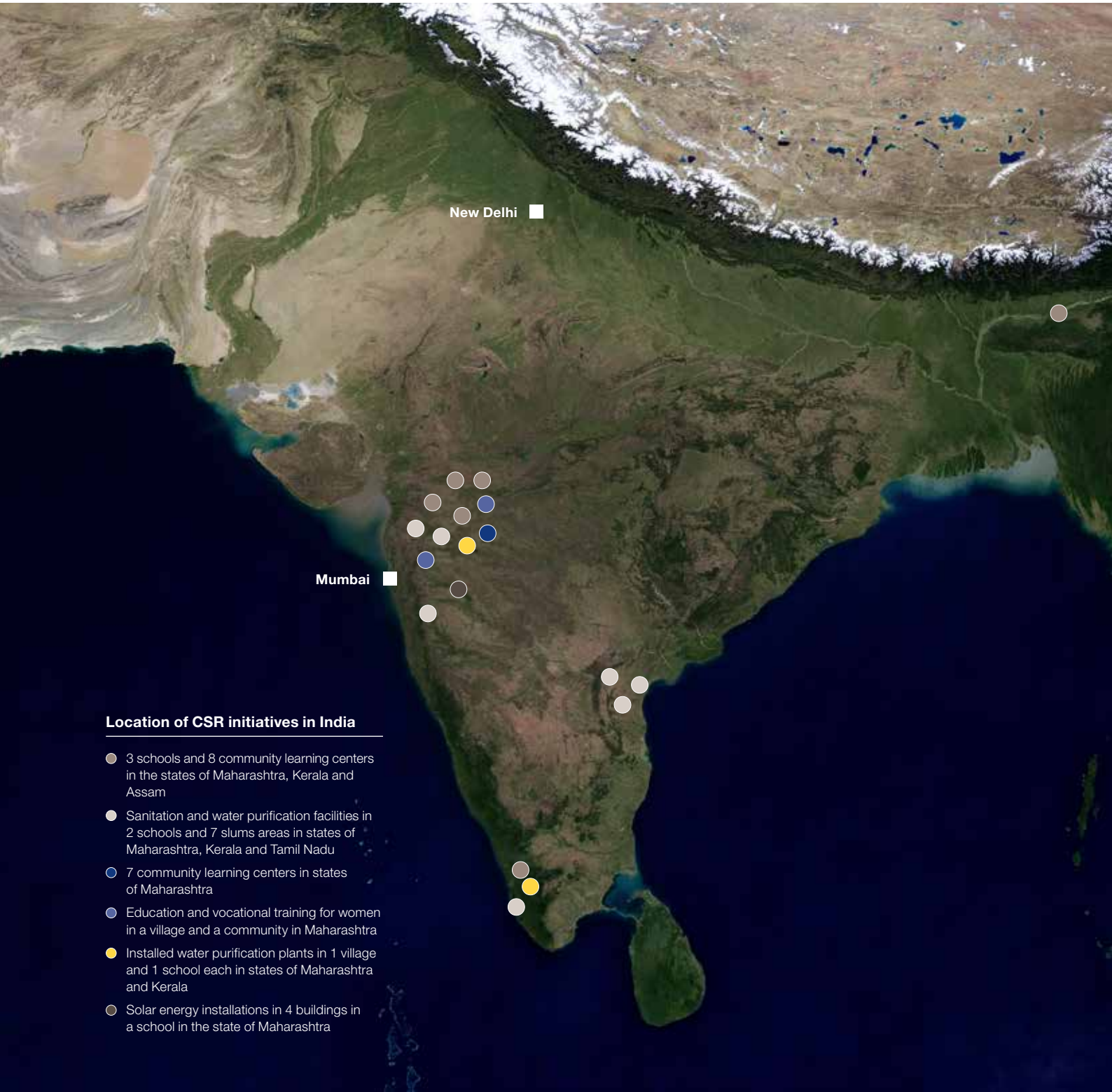
In addition, Alfa Laval supports eight community learning centres for 900 children in slums in Pune and Ahmednagar. The program also provides activities such as computer classes, summer camps, community art events and science activities and lectures for around 350 children.

Alfa Laval has also built a higher secondary school in the remote village of Velvand as the children there had to travel several kilometres to school. Alfa Laval provided a school bus to ensure children with less privileged backgrounds were able to attend this school until the new school in Velvand was built.

Water and Sanitation

In addition to education, Alfa Laval also supports projects to increase access to clean water and sanitation. Two clean drinking water plants in villages near Cuddalore through WaterLife have been constructed. These water plants will give more than 11,000 villagers access to clean and potable water. The water plants are modern, solar-powered, cashless vending machines to provide clean drinking water 24 hours a day.

'One Home One Toilet' is also a project supported by Alfa Laval. As of the end of 2018, 1,829 toilets have been installed in the homes of people living in slums in Pune and Navi Mumbai.



Sustainable Development Goals

Alfa Laval support charities and volunteering projects that promote development and children’s rights, education and health. Through the initiatives above, Alfa Laval contributes to Goal 4 “Quality education”, Goal 5 “Gender equality” and Goal 6 “Clean water and sanitation”.



Responsible sourcing

Responsible supplier management is a prioritized area for Alfa Laval. We strive to ensure that our suppliers live up to our sustainability standards — our Business Principles.

Responsible supplier management

Alfa Laval is a global company with more than 40 production sites and distribution centres in Europe, Asia and America. We expect our suppliers to act ethically and in full compliance with the applicable regulation in every country they operate. By imposing sustainability requirements on our direct suppliers, we encourage them to develop their capacity to meet stricter demands and ultimately become more sustainable. We work continuously to improve our performance, however with suppliers in many countries around the world we can never be complacent or completely satisfied with our progress.

Performance beyond compliance

The Alfa Laval Business Principles play an integral role in our sourcing process. At Alfa Laval, all employees in the procurement organization are required to undergo mandatory training on anti-bribery and anti-corruption as well as our Business Principles. In total, more than 317 employees within the purchasing organization have been trained. All managers in the purchasing organization have also completed a six-hour in-depth training on supplier Business Principles.

The purchasing organization implemented a new scorecard last year. The scorecard is designed to help

Alfa Laval monitor the status of suppliers regarding critical indicators such as anti-corruption, environmental issues and working conditions.

Monitoring high-risk suppliers

Our highest priorities are to improve the health and safety, labour conditions and working environment of our direct suppliers' employees in high-risk countries and industries. The initial screening is the basis for our prioritization and ensures that we prioritize the suppliers that pose the highest risk of breaches to our Business Principles. This is followed by three levels of risk assessment. Read more below.

Governance structure

The Alfa Laval Supplier Risk and Compliance Council sets the annual improvement plans and allocates resources accordingly. The Council is responsible for verifying that our supply chain lives up to Alfa Laval's Business Principles and continuously improves. Master auditors conduct supplier audits and support with supplier development activities. They are also responsible for training and certifying auditors, and for identifying and dealing with non-compliance in the organization. Purchasing managers are responsible for the continuous development of our

100%

Direct suppliers screened using environmental and social criteria

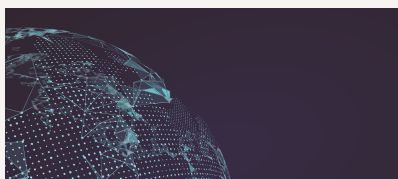
suppliers, including the implementation of our Business Principles.

Audits and action plans

Audits are conducted by both internally-certified auditors and external third-party auditors. They review how well our suppliers comply with our Business Principles and help prepare improvement plans. Our audit platform highlights six areas with deviations that we define as critical: child labour, young labour, forced labour, freedom of association, health and safety, fire protection and environment. Deviations in these areas will require immediate correction if Alfa Laval is to commence or continue a relationship with a supplier.

During the year, we conducted 90 supplier audits to assess their social or environmental impacts. All suppliers identified as having potential or actual negative impacts are followed up with an

Assessing supplier risk



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 to supplier production processes.



Governance & policies

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

improvement action plan. Alfa Laval's main objective is to promote improvements throughout the supply chain. Suppliers with serious breaches are given a limited time to implement the necessary improvements. If insufficient progress is made, Alfa Laval has an escalation process to ensure suppliers that fail to improve according to the action plan will be phased out. During 2018, Alfa Laval phased out five suppliers due to Business Principle breaches.

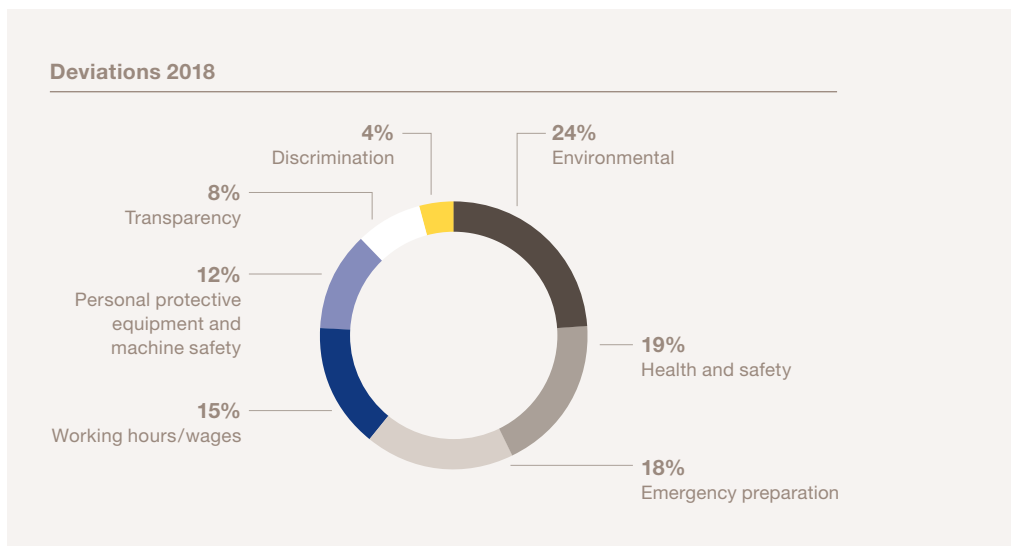
Increasing supplier understanding

Promoting supplier in-depth understanding of our Business Principles is key to improving our supply chain. China and India have been the primary focus for many years. During 2018, we widened our scope to include Mexico and Brazil. Alfa Laval conducts various initiatives to increase the level of understanding in these countries. In 2018, 130 suppliers have been trained on our Business Principles including human rights issues. The suppliers that participated made faster progress after participating in these initiatives. They also showed a better understanding of the fact that these improvements can also benefit their business.

Alfa Laval has also piloted a new sustainable development programme for suppliers during the year. The programme is built on collaboration and ensures that training, assessment and improvements are carried out together with the supplier. The aim of the programme is to improve supplier competence within the area of sustainability as well as ensuring long-term compliance with the Alfa Laval Business Principles. The programme includes competence development, cooperative due diligence and coaching. During 2018, 18 suppliers in China participated in the programme. The pilot programme in China has proven to be effective and successful, and a further roll-out is being evaluated.

Conflict minerals

The Dodd Frank Act requires companies to conduct due diligence to ensure that the minerals used in its products are not sourced from mines that finance armed groups guilty of human rights violations.



We published a policy on conflict minerals in 2013 on our website and have since worked with the vision to achieve "conflict-free" deliveries to our customers. We implemented a supplier platform in 2016 to increase the efficiency in communicating, training and reviewing supplier responses in this area. In 2018, we have identified 650 suppliers which we have communicated with to ensure compliance.

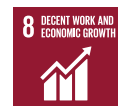
Modern Slavery Act

The continued prevalence of forced labour and human trafficking is a serious global issue with many victims, and Alfa Laval

has zero tolerance within its own organization and supply chain. We are committed to protecting human rights and supporting the principles contained within the Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises and the ILO Core Conventions on Labour Standards. Alfa Laval's Modern Slavery Act Statement is available on our website. Last year, Modern Slavery was included in our internal and supplier training as well as in the monitoring, auditing and follow-up activities with suppliers.

Sustainable Development Goal

One essential part of the Global Goal 8 is intended to promote "Decent work for all". This involves protecting labour rights and promoting safe working environments for all workers. Alfa Laval's Business Principles require decent working conditions. Working conditions and safety are highly prioritized areas — both in our own operations and through the demands we place on our suppliers.





Business integrity

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

ABAC Policy



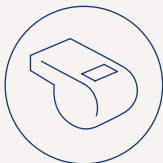
All employees have received information on Alfa Laval's policies and procedures regarding anti-corruption.

Business Principles



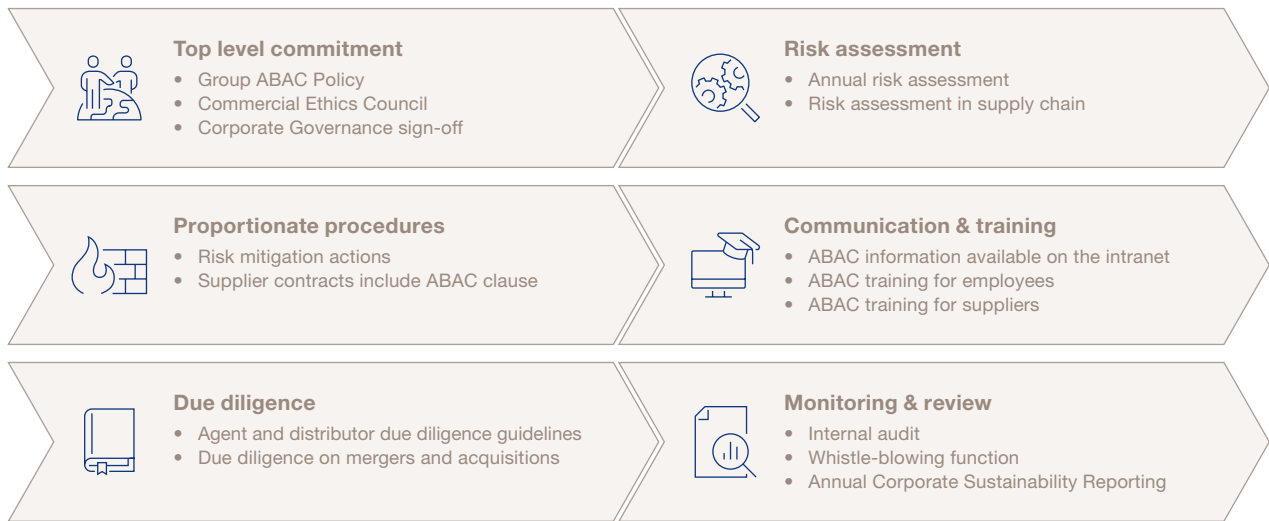
One of Alfa Laval's Business Principles is Business Integrity.

Whistle-blowing system



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

Anti-bribery and anti-corruption process



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. We carefully monitor the development of international regulations, social standards and voluntary initiatives, including areas such as anti-bribery, anti-corruption and conflict of interest. During 2018, we have continued to build on our internal processes to ensure that we follow laws and regulations relevant to our business.

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 a "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. In addition, it was concluded that Alfa Laval's whistle-blowing system needs to be communicated more widely. Information about the whistle-blowing system was included in a new training.

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.

Focus on ABAC training

Information on Alfa Laval's policies and procedures regarding anti-bribery and anti-corruption is made available to all employees, through various distribution channels. During 2018, a mandatory ABAC training for all white-collar employees was launched. In total, more than 10,000 employees have received targeted training focusing on ABAC.

Proportion that have received training in anti-corruption

	2018
The Group Management	100%
White-collar employees	72%

Sustainable Development Goal

Global Goal 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.



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 on pages 1–40 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, 8 March 2019

Ernst & Young AB

Staffan Landén
Authorised Public Accountant

Karoline Tedevall
Authorised Public Accountant

Global Compact Index

Global Compact Index	Principle	Page
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Businesses should make sure that they are not complicit in human rights abuses	Principle 2	8, 24-31, 38-39
Labour		
Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	Principle 3	8, 24-31, 38-39
Businesses should uphold the elimination of all forms of forced and compulsory labour	Principle 4	8, 24-31, 38-39
Businesses should uphold the effective abolition of child labour	Principle 5	8, 24-31, 38-39
Businesses should uphold the elimination of discrimination in respect of employment and occupation	Principle 6	8, 24-31, 38-39
Environment		
Businesses should support a precautionary approach to environmental challenges	Principles 7	8, 22-23, 36-39
Businesses should undertake initiatives to promote greater environmental responsibility	Principles 8	8, 22-23, 28-31, 36-38
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Anti-corruption		
Businesses should work against corruption in all its forms, including extortion and bribery	Principle 10	8, 30-33, 39



GRI Content Index

The report covers the 2018 calendar year and focuses on material topics and activities in line with stakeholder concerns. This is the first year Alfa Laval reports on sustainability activities in accordance with the Global Reporting Initiative (GRI) Standards: Core option. All reported GRI-Standard modules refer to version 2016. No external assurance has been undertaken. The previous Sustainability Report was published in March 2017. Data and sustainability information for previous years are available at www.alfalaval.com/about-us/sustainability/

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102-4	Location of operations	AR 36, 106
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102-7	Scale of the organization	SR 6-7, AR 5, 68
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102-9	Supply chain	SR 30-31
102-10	Significant changes to the organization and its supply chain	SR 30-31
102-11	Precautionary Principle or approach	SR 36
102-12	External initiatives	SR 14, 34
102-13	Membership of associations	SR 14, 34
Strategy		
102-14	Statement from senior decision-maker	SR 5
Ethics and integrity		
102-16	Values, principles, standards, and norms of behaviour	SR 8, 25
Governance		
102-18	Governance structure	SR 8, 36-39
Stakeholder engagement		
102-40	List of stakeholder groups	SR 36
102-41	Collective bargaining agreements	SR 38
102-42	Identifying and selecting stakeholders	SR 36
102-43	Approach to stakeholder engagement	SR 36
102-44	Key topics and concerns raised	SR 36
Reporting practice		
102-45	Entities included in the consolidated financial statements	AR 58
102-46	Defining report content and topic boundaries	SR 35-39
102-47	List of material topics	SR 35-36
102-48	Restatement of information	SR 35-39
102-49	Changes in reporting	SR 35-39
102-50	Reporting period	SR 35
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102-52	Reporting cycle	SR 35
102-53	Contact point for questions regarding the report	SR 2
102-54	Claims of reporting in accordance with the GRI Standards	SR 35
102-55	GRI Content Index	SR 35
102-56	External Assurance	SR 35
Specific Standard Disclosures		
GRI 200: Economic standard series		
Economic performance		
103	Management Approach ¹⁾	SR 7, AR 74
201-1	Direct economic value generated and distributed	SR 7, AR 74
Anti-corruption		
103	Management Approach ¹⁾	SR 8, 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	SR 33, 39
Energy		
103	Management Approach ¹⁾	SR 8, 22-23
302-1	Energy consumption within the organization	SR 22, 36-37

SR = Sustainability Report 2018 AR = Annual Report 2018 ● Partially reported

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.

Reasons for omission

102-8 & 205-2: Information unavailable regarding business partners and the necessary detail of global employee data cannot be obtained for 2018. The objective is to report both GRI indicators in full 2020. 408-1 & 409-1: The boundary for these two material topics are within the supply chain.

Specific Standard Disclosures	Omissions	Page
GRI 300: Environmental standard series		
Water		
103	Management Approach ¹⁾	SR 8, 22
303-1	Total water withdrawal by source	SR 22, 36
Emissions		
103	Management Approach ¹⁾	SR 8, 22-23
305-1	Direct (Scope 1) GHG emissions	SR 22-23, 37
305-2	Energy indirect (Scope 2) GHG emissions	SR 22-23, 37
305-3	Other indirect (Scope 3) GHG emissions	SR 22-23, 37
Effluents and waste		
103	Management Approach ¹⁾	SR 8, 22-23
306-2	Waste by type and disposal method	SR 22-23, 37
306-3	Significant spills	SR 37-38
Environmental compliance		
103	Management Approach ¹⁾	SR 8, 22-23
307-1	Non-compliance with environmental laws and regulations	SR 22-23, 38
Supplier environmental assessment		
103	Management Approach ¹⁾	SR 30-31, 39
308-1	New suppliers that were screened using environmental criteria	SR 30-31, 39
GRI 400: Social standards		
Employment		
103	Management Approach ¹⁾	SR 24-27, 38
401-1	New employee hires and employee turnover	SR 38
Occupational Health and Safety		
103	Management Approach ¹⁾	SR 24-27, 38-39
403-2	Types of injury and rates of injury, occupational diseases, lost days, absenteeism, and work-related fatalities	SR 26-27, 38-39
Training and education		
103	Management Approach ¹⁾	SR 24, 38
404-1	Average hours of training per year per employee	SR 24, 38
Diversity and equal opportunity		
103	Management Approach ¹⁾	SR 24-26, 38
405-1	Diversity of governance bodies and employees	SR 24-26, 38
Non-discrimination		
103	Management Approach ¹⁾	SR 8, 24-31, 38
406-1	Incidents of discrimination and corrective actions taken	SR 38
Child labour		
103	Management Approach ¹⁾	SR 30-31, 39
408-1	Operations and suppliers at significant risk for incidents of child labour	SR 30-31, 39
Forced or compulsory labour		
103	Management Approach ¹⁾	SR 30-31, 39
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	SR 30-31, 39
Human Rights Assessment		
103	Management Approach ¹⁾	SR 30-31, 39
412-2	Employee training on human rights policies or procedures	SR 30-31, 39
Supplier social assessment		
103	Management Approach ¹⁾	SR 30-31, 39
414-1	New suppliers that were screened using social criteria	SR 30-31, 39
414-2	Negative social impacts in the supply chain and actions taken	SR 30-31, 39
Customer privacy		
103	Management Approach ¹⁾	SR 39
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	SR 39
Socio-economic compliance		
103	Management Approach ¹⁾	SR 8, 32-33, 38
419-1	Non-compliance with laws and regulations in the social and economic area	SR 38

Sustainability notes

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, owners, employees, future employees, business partners, neighbours, authorities and 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. Employees can give feedback directly to their managers or through annual employee surveys. Our shareholders participate in Annual General Meetings and investors are invited to our annual capital markets days. We have regular contact with our suppliers and invite many of them to supplier conferences and workshops. We have open dialogue with the communities in which we operate, including collaboration with universities.

Materiality assessment

A materiality assessment was conducted together with the non-profit organization BSR in 2016. The assessment included interviews and surveys with customers, employees, suppliers, academia and investors. The aim was to identify the sustainability topics where we can make the greatest positive difference. During 2018, the assessment was complemented with an internal analysis based on the Global Reporting Initiative (GRI). The analysis gave us a more comprehensive overview that also identified relevant key performance indicators. These assessments have 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 impact.

The material topics are: occupational health and safety, fair working conditions, anti-corruption, energy use, carbon

emissions, water consumption and waste management. It is important for Alfa Laval to attract talent and work with career development, diversity, equal opportunities and non-discrimination including non-harassment. Compliance includes environmental and socio-economic compliance, anti-bribery anti-corruption and data protection. A responsible supply chain and good relationships with suppliers are central to Alfa Laval's commitment to provide customers with the most innovative and optimal solutions. The boundaries of material issues vary from topic to topic.

Developing new products

Alfa Laval is divided into three divisions working with marine, food & water and energy applications. Within each division, Business Units are responsible for product offerings to these industries. Each Business Unit has an R&D organization responsible for developing innovative product solutions. New products are developed within cross functional projects. We perform risk analysis to improve health and safety aspects, both from internal and customer perspectives. All new products are optimized from a holistic life cycle perspective. Life cycle analyses are used to analyse the environmental impact of new products vs. those they replace. Since the beginning of 2015, Alfa Laval has performed more than 180 LCAs, which have developed knowledge on how to optimize our products from an environmental perspective. Our ambition is that each new product should have a lower environmental impact than its predecessor. Research and development investments amount to between 2 and 2.5% of net sales per year. By the end of 2018, Alfa Laval had more than 3,500 patents in its portfolio.

Environment

Alfa Laval's Business Principles (the company Code of Conduct) addresses the precautionary principle as does the corporate Environment Policy. We support a precautionary approach to environmental challenges and establish measurable objectives for improved environmental performance and resource utilization in order for own operations to become as efficient as possible.

Water management

Throughout the value chain, Alfa Laval affects both the quality as well as the availability of water. Alfa Laval offers a wide range of technologies to treat wastewater and generate fresh water. Alfa Laval's own production processes require relatively small amounts of water. Most of the water consumed in our processes is used in the testing and servicing of our products. Our target is to reduce the water consumption by 2% per year with a focus on our sites in regions affected by water scarcity. Alfa Laval has used the World Resources Institute 'Aqueduct Water Risk Atlas' tools to assess areas with water stress. Alfa Laval has identified 10 sites in high-risk areas. The water consumption from these sites represents 13% of the company's total water consumption. A global water action group was initiated during the year that consists of Alfa Laval sites with the highest water consumption in water stressed areas. During the year, the data quality for water consumption has been improved and resulted in significant changes compared to previous report.

Water management	
Water stress	Number
Extremely high risk	0 sites
High risk	10 sites
Medium-high risk	79 sites
Low-medium risk	64 sites
Low risk	16 sites

Energy and carbon emissions

Alfa Laval works continuously to reduce energy consumption by optimizing operations and investing in energy-efficient technologies. In 2018, the normalized energy consumption for comparable sites (like for like) increased by 8.6% compared with 2015. Read more about the increase and Alfa Laval's work to reduce consumption on page 22.

One quarter of Alfa Laval's energy consumption consists of energy converted internally. See the chart showing the breakdown of our energy converted internally during 2018. Renewable energy includes biogas and renewable energy converted, which includes energy from photovoltaic systems. All other energy sources are fossil-based (non-renewable).

The carbon emission data for previous years have been updated to follow the GHG Protocol. The emission factors have also been updated. The table below presents Alfa Laval's Scope 1–3 emissions where Scope 1 includes energy consumption within the organization and company cars. Scope 2 includes direct emissions (market-based method) and Scope 3 includes goods transportation, business travel (air travel and rental cars). The base year for the calculations is 2015 and the strategy period is 2016–2020. Read more about our targets on page 9.

Alfa Laval works to reduce carbon emissions in all three scopes. Our work in scope 1 & 2 is further explained on page 22. Regarding the transportation of goods, the aim is to ship as little as possible by air. However, there are occasions when the organization has limited opportunity to influence this choice, such as when a customer has an urgent need for a product, which makes air freight the only viable solution. Alfa Laval has an important role in explaining to customers what the effects are in the case of various transport choices, in order to avoid air freight as much as possible. In 2018, 70% of goods were transported by road, 23% were shipped by sea, 6% were transported by air and 1% by rail. The increased need for transport was mainly due to more transportation to China and the type of products delivered during 2018, which required more air freight. Our main challenge is changing the means of transport from air to land and sea.

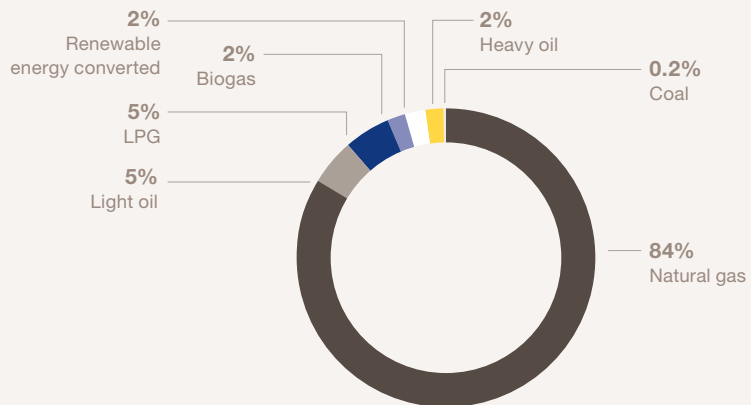
Effluents and waste

In 2018, waste amounted to a total of 25,461 tonnes. Our production sites work to reduce waste. Alfa Laval has a target to recycle 85% of waste by 2020. In 2018, a significant proportion (70%) was recycled. 10% (2,571 tonnes) was hazardous waste.

Direct energy consumption within the organization (MWh)

	2015	2016	2017	2018
Electricity, purchased	154,521	155,456	159,546	168,646
Heat, purchased	22,828	23,785	24,552	29,749
Other energy converted internally	69,425	72,880	70,336	69,581
Total energy	246,774	252,120	254,434	267,976
Renewable energy (%)	17%	21%	21%	41%

Energy converted internally 2018



Carbon dioxide emissions (tonnes CO₂e)

	2015	2016	2017	2018
Scope 1	19,488	20,179	19,240	20,148
Scope 2	64,991	61,682	63,663	33,250
Scope 3	70,614	75,964	78,650	90,050
Total	155,093	157,825	161,553	143,448

Total weight of waste 2018 (tonnes)

	Hazardous	Non-hazardous
Recycling	1,118	15,680
Composting	0	1,099
Recovery, including energy recovery	583	1,753
Incineration (mass burn)	528	3,360
Landfill	342	998

In 2018, Alfa Laval recorded no significant spills. There were two larger spills reported 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.

Environmental and socioeconomic compliance

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 2018.

Employees

Unless stated otherwise, all information in this report concerning the number of employees refers to data from actual number of employees on 31 December for each year. The total number of employees amounted to 17,228 (16,367), of which 20.5% (20.2%) are women. The number of employees (excluding non-Alfa Laval

branded acquisitions) was 15,530 (14,795) employees of which 96.8% were full-time and 3.2% part-time.

Our Code of Conduct stipulates 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 45% of employees are covered by collective bargaining agreements.

At Alfa Laval, every employee must have a performance and career development review with their manager at least once a year. Alfa Laval's training platform includes a broad range of courses from basic training to advanced training in areas such as leadership and project management. The data in the table presents the total number of training hours provided by the platform.

Non-discrimination

In the recent employee survey, 86% (84%) of the participants responded that their working group is free from any kind of discrimination and harassment. In 2018, 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 2018.

Health and safety

The Alfa Laval Global Health and Safety Policy is signed by the CEO. The policy clearly states that the managing directors and site managers are responsible for fulfilling and upholding this policy. They are in turn supported by global and local health, safety and environment resources. All sites shall implement local occupational health and safety management systems and have access to a company doctor or health care professionals to support the organization with health-related issues. The minimum required competence and training on health and safety is defined in Alfa Laval's Health & Safety Manual. All legal entities must secure the correct competence and shall identify specific training needs based on country legislation or other requirements. The required training also includes training for new employees, a tailored safety training for

New employee hires and employee turnover

	2016		2017		2018	
	Number	Percent	Number	Percent	Number	Percent
Total number and rate of new employee hires	1,047	7%	1,104	7%	2,006	13%
Of whom are women	274	26%	291	26%	453	23%
Total number and rate of employee turnover	1,992	13%	1,646	11%	1,795	12%
Of whom are women	455	23%	364	22%	349	19%

This table does not include non-Alfa Laval branded acquisitions. The employee turnover for the complete Alfa Laval Group was 10.8% compared with 11.1% in 2017.

Training hours per employee

	2017	2018
Number of training hours provided to employees	106,868	145,477
Number of employees	14,795	15,530
Average training hours per employee	7.2	9.4

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

Diversity of governance bodies and employees 2018

	Board of Directors	Group Management	Senior Management	Other employees
Total number	7	9	62	15,459
Women	29%	22%	26%	20%
Men	71%	78%	74%	80%
< 30 years	0%	0%	0%	15%
30-50 years	14%	0%	55%	58%
> 50 years	86%	100%	45%	27%

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

specific roles, emergency preparedness and response training, training on safe behaviour and leadership, as well as training in the different tools such as Hazard Identification and Risk Assessment (HIRA), Injury Analysis and Job Safety Analysis. During 2018, the method for calculating health and safety data has been updated. Frequency rate data is now calculated based on 200,000 worked hours.

Supply chain

Alfa Laval has a responsibility to promote and manage sustainability issues throughout its value chain. Work with our suppliers is based on a process where the focus is on evaluation, competence development and continuous improvement. The work is based on risk assessments related to human rights, bribery/corruption, environmental, and health and safety. The risk of child labour, young workers, forced or compulsory labour depends on the geographical location of the supplier. Other risk factors include the maturity of the supplier in Human Rights compliance as well as the type of industry and process. All new direct suppliers are screened based on social criteria and a supplier risk assessment is also included in the supplier on-boarding process. This is followed by Business Principle audits and awareness training to enhance supplier competence and knowledge. 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. The procurement

organization provided 470 hours of training on human rights policies or procedures concerning aspects of human rights during 2018. In total, more than 310 employees have been trained in human rights.

Anti-corruption

Mandatory training on anti-corruption is held on a biennial basis for all white-collar employees. The training is not tailored to different groups of employees, but it includes different scenarios that provide examples of situations in various roles within the company.

Charity donations are generally made at local level, and mainly to organizations promoting child education. All donations are approved by the manager of the legal entity. When a donation exceeds 2,000 EUR, it is reported to the central organization.

Data privacy

Alfa Laval respects and 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 work 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 key support functions in each corporate function. Alfa Laval has also appointed a Data Privacy Board, which includes 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. Processes are also designed for reporting to the authorities and individuals involved in a breach of personal data. The organization regularly audits how personal data is being processed or stored to assess the need for changes. In 2018, Alfa Laval did not receive any substantiated complaints concerning breaches of customer privacy or identified leaks or losses of customer data.

Training in anti-corruption policies and procedures

	2017	2018
Total number of employees that have received training	1,209	10,059
Total number of employees	14,795	15,530
Percentage of employees	8.2%	64.8%



Carbon dioxide.

One of the most challenging menaces to our planet's climate. Mainly caused by the extensive use of fossil fuels. Forecasts predict that energy demand will increase by some 30 percent during the next two decades. The encouraging news is that the use of energy-efficient equipment can off-set more than this increase.

Alfa Laval is a frontrunner in energy efficiency. Our high-technology heat exchangers are a case in point. They can increase energy efficiency in industrial processes by up to 50 per cent. Thanks to Alfa Laval's new installations of heat exchangers, global carbon dioxide emissions are reduced by about 150 million tons — every year! This equals the combined yearly emissions of at least 30 million cars. It is all about contributing to a cleaner environment.

Pure Performance. Energy. Environment. Marine. Mechanical engineering. Sanitary. Chemical. You name the industry. Alfa Laval is helping all of them to purify and refine their processes and products. Time and time again.

We are hard at work in more than 100 countries implementing our expertise, technical support and service. Helping to create a cleaner environment and better living conditions for all mankind.

Alfa Laval in brief

Alfa Laval is a leading global provider of specialized products and engineered solutions.

The company's equipment, systems and services are dedicated to helping customers optimize the performance of their processes. Time and time again.

Alfa Laval helps customers to heat, cool, separate and transport products such as oil, water, chemicals, beverages, foodstuffs, starch and pharmaceuticals.

Alfa Laval's worldwide organization works closely with customers in 100 countries to help optimize their processes.

More information on the Internet

Alfa Laval's website is continuously updated with new information, including contact details for all countries.

Read more at www.alfalaval.com