



# SUSTAINABILITY REPORT 2019



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## The Camfil Sustainability Report 2019 presents Camfil's approach to sustainability and our progress on integrating sustainability into the business.

Camfil is a leading manufacturer of premium clean air solutions that provide clean air in combination with energy efficiency. From day one of our company's inception more than 50 years ago, we have been passionate about protecting people, processes and the environment from harmful pollutants.

This year marks the 10th anniversary of sustainability reporting for Camfil. At this point in time, four main pillars of corporate sustainability work – environmental, labour, human rights and anti-corruption – are firmly anchored within the company and inform the Camfil Group's decisions and actions. Going forward, we will continue to advocate for a vision of clean air as a human right. In 2019, Camfil conducted comprehensive

customer interviews as part of our customer satisfaction surveys in Italy, China, France and the U.S. The results were clear: Sustainability is becoming increasingly important for our customers and is also a part of their own supplier evaluations. When we asked what words they would use to describe Camfil, their responses were: “clean air”, “better environment”, “health”, “labour savings”, “energy” and “quality”. We couldn't be more pleased with these results.

We hope you enjoy reading our report.

# This is Camfil – who we are, what we do, why we care



Mark Simmons, President and CEO



55+

Years of Clean Air Solutions. Camfil AB was founded in Trosa, Sweden, 1963 by Gösta Larson



4800

Employees



8700

Million SEK net sales



HQ

in Stockholm, Sweden



30

Manufacturing sites



6

R&D centres



30

Countries with sales offices



## About Camfil

Camfil AB is a Swedish, family-owned shareholding company founded in 1963 and headquartered in Stockholm, Sweden.

-  HEAD OFFICE
-  PRODUCTION UNIT, INCL. SALES
-  SALES OFFICE

Camfil agents/distributors are not included on this map.  
To find Camfil agents/distributors, please use the contact locator at [www.camfil.com](http://www.camfil.com)

## Mission Statement

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Our mission is to protect people, processes and the environment by defining, developing and delivering solutions that combine clean air with energy efficiency in a sustainable and profitable way.

## Vision Statement

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We like to phrase our vision statement as a question to create a debate and raise awareness. "Clean Air - A Human Right?" Do you agree? We do!

## Growth and Profitability Goals

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Camfil's goal is to achieve organic growth well above market growth with maintained profitability.

## Core Values

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### RELIABILITY

We are reliable because we know the market; we are honest and truthful. Our people, products and processes must always meet, or exceed, agreed results.

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### COMMITMENT

We are committed to always striving for the best possible solutions, and we are in the forefront of technological and environmental developments in our fields of expertise.

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### CUSTOMER SATISFACTION

We put our customers first. We focus on identifying customer needs and creating long-lasting customer value.

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### TEAMWORK

Working together makes us stronger and increases employee satisfaction both locally and globally.

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### LOCAL PRESENCE

Local understanding and presence on local markets builds customer relations and satisfaction.

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## What we do

For more than half a century, Camfil has been helping people breathe cleaner air. As a leading manufacturer of premium clean-air solutions, we provide commercial and industrial systems for air filtration and air pollution control that improve worker and equipment productivity, minimize energy use, and benefit human health and the environment. In summary - we offer innovative products and services that yield the best TCO (total cost of ownership) and most sustainable solutions for our customers.

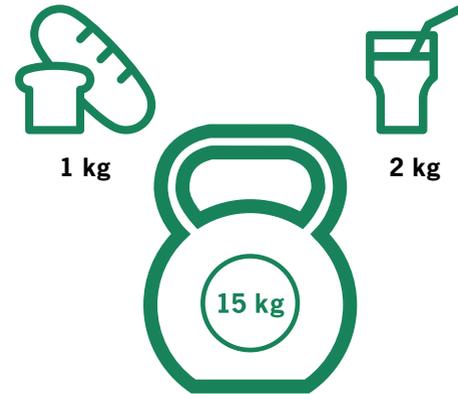
The Camfil Group is headquartered in Stockholm, Sweden, and has 30 manufacturing facilities, six R&D centres, local sales offices in 30 countries, and 4 800 employees and growing. We proudly serve and support customers in a wide variety of industries and in communities across the world.

We firmly believe that the best solutions for our customers are the best solutions for our planet, too. From design to delivery and across the product life cycle, we consider the impact of what we do on people and on the world around us. Through a fresh approach to problem-solving, innovative design, precise process control and a strong customer focus we aim to conserve more, use less and find better ways – so we can all breathe easier.

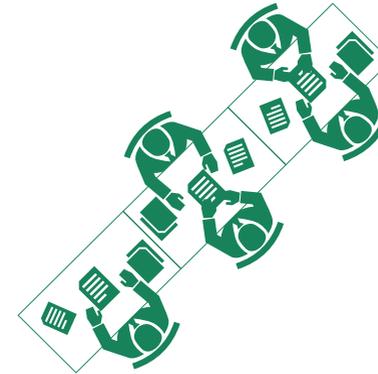
# Why we care

## MAKING INDOOR AIR SAFER TO BREATHE

Many people aren't aware that the air they breathe indoors can be more polluted than the air outdoors. Camfil advocates educating people about the potential harms of poor indoor air quality. Here are some facts about the air we breathe and why it matters.



Humans typically eat 1kg of food, drink 2kg of fluids and breathe 15kg of air each day.



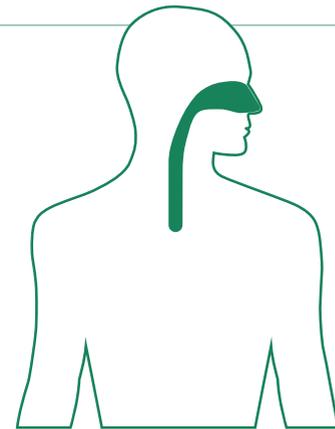
We spend up to 90% of our life indoors. This means that indoor air quality can substantially influence our health.



The indoor environment can be up to 50 times more polluted than outdoor air.

## WHY PARTICULATE MATTER MATTERS

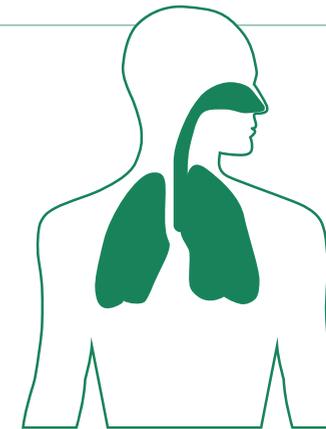
Just like people themselves, particulate matter ("PM") comes in different shapes and sizes. The smaller the PM diameter, the greater the risk of PM getting deep into the lungs and bloodstream. Here's how particles and gases penetrate the human body.



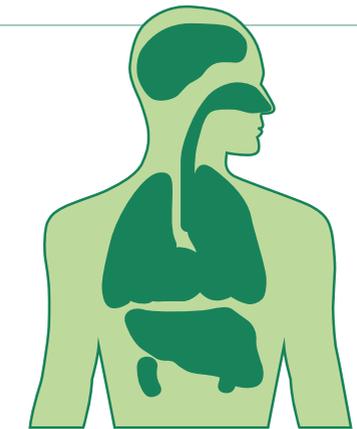
**Size ~10µm** – Coarse particles that reach the respiratory ducts and can cause decreased lung function.



**Size ~2.5µm** – Fine particles that can penetrate the lungs and cause decreased lung function, skin and eye problems etc.



**Size ~1µm** – Inhaleable particles can enter the blood stream and lead to tumours, cardiovascular diseases, dementia etc.



**Size ~0.1µm** – Ultrafine particles, small enough to pass through the aveoli cell membrane into the blood stream.

# UN Global Compact

The UN Global Compact was established to encourage businesses around the world to embed responsibility into their activities. Camfil is a member of the Compact and supports its ten principles and four overarching areas – human rights, labour, the environment and anti-corruption. In fact, our own defined vision is to help make clean air a human right.

We comply with and promote these principles throughout the company, and we report on their progress in this sustainability report. This year, as every year, we updated and submitted a Communication on Progress (COP) to the Compact website as a record of our ongoing commitment. Other examples of this commitment include the following policies and guidelines:

- **CODE OF BUSINESS ETHICS**
- **SUPPLIER CODE OF CONDUCT**
- **CAMFILCARING CODE**
- **OWNER'S DIRECTIVE**
- **HEALTH AND SAFETY HANDBOOK**
- **IT SECURITY AND DATA PRIVACY POLICIES**





# UN Sustainable Development Goals

The UN's 17 sustainable development goals (SDGs) and related targets aim to fight inequality, end extreme poverty and protect the world we live in. To achieve the SDGs, businesses must make significant efforts. They must adopt a sustainability mindset, anchoring sustainability in company strategies, core business activities and employee behaviours.



## WHERE WE CAN POSITIVELY IMPACT VALUE CHAINS AND SOCIETY AT LARGE



For the best indoor air quality to promote good health and well-being, Camfil offers high-efficiency air filters to remove harmful particles and contaminants in ventilation air, as well as air pollution control systems that collect dust, mist and fumes in manufacturing for safer work environments.

This is an area where our ambition to always provide better filtration for both particles and gases can help to give people a better life. Once again, it is an ongoing work where we continue to mix smaller incremental changes with step changes.

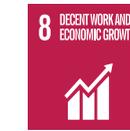


Camfil's air filters and clean air solutions are the most energy-efficient on the market and create more sustainable buildings in cities around the world.

## 4 GOALS WHERE WE MAKE THE MOST IMPACT

CAMFIL SUPPORTS ALL 17 SDGS BUT HAS IDENTIFIED FOUR GOALS WHERE IT CAN MAKE THE MOST IMPACTFUL CONTRIBUTION.

### WHERE WE CAN REDUCE THE NEGATIVE IMPACT OF OUR OPERATIONS



We provide satisfactory working conditions for more than 4,800 employees at 30 manufacturing sites backed by strong human resource management and local employee care and health programs. This global workforce steadily helps us to increase our annual sales and earnings to contribute to economic growth in more than 30 countries.

We need to continue this work and also ensure that our partners, suppliers and distributors also help contribute to this goal. We do so by strengthening the requirements for the companies we work with to ensure they also provide decent working conditions. In addition to this, we support their growth by doing more business together to ensure economic growth.



The environmental impact of Camfil's production plants is being continuously reduced each year through in-house improvement measures and green initiatives to conserve energy, water and reduce landfill waste. This work will

never be complete, and we will continue to improve our own operations and, in addition, work on minimizing the environmental impact our products have during their lifetime. There are also SDGs where Camfil can contribute positively with our knowledge and expertise.

## Mark Simmons, CEO of Camfil, explains Camfil's sustainability engagement and vision in the following interview.

You took on a new role as president and CEO in 2019. The year also marks the 10th anniversary of Camfil's sustainability report publication. What is your view of Camfil's sustainability efforts?

– From the day the company was founded, way before the term “sustainability” had become such a megatrend, our company was making products that help to clean the air people breathe using energy-efficient solutions. Camfil was, and still is, a family-owned business with a clear vision and moral compass – a place where colleagues have a strong sense of pride and personal accountability in their interactions with customers and suppliers. This is true on the sustainability front as well. Since the publication of our first sustainability report a decade ago, this report marks true progress in our pursuit of meaningful, measurable impact. I've been with Camfil for nearly a decade, too, and in my new role I intend to build on our fantastic heritage and to set and achieve even more environmental targets going forward.

### HOW DO YOUR PRODUCTS PROMOTE SUSTAINABILITY?

– Our entire business revolves around helping customers protect people, production processes and the environment. We make products that filter

dangerous particles from the air, collect dust and fumes, and prevent molecular contamination in a huge number of industries. And it's not just the people who work in industry who benefit. Camfil's products help millions of people every day, adults and children alike, wherever they spend time indoors – in schools, museums, shopping centres, gyms, hotels and many more places.

As a global leader in filtration, our products provide the highest filtration efficiency in combination with the lowest energy consumption for our customers, a delicate balance that's not always easy to achieve. Besides our product offer, we also run educational campaigns to raise awareness about how indoor air quality affects human health. In fact, the company's stated vision is to help make breathing clean air a human right, which perfectly aligns with the UN's Sustainable Development Goal 3 on good health and well-being.

On the production side, since we have our own local manufacturing facilities around the world we can reduce transport distances and so lower our total carbon footprint. At the same time, we can better uphold our strict standards of product quality and ethical behaviour throughout the supply chain. The majority of our production facilities are certified to the ISO 14000 environmental standard, and the majority are ISO 9000 certified.



#### WHAT WERE CAMFIL'S MAJOR SUSTAINABILITY ACHIEVEMENTS IN 2019?

– We made great progress on all four major areas of the UN Global Compact – human rights, labour, anti-corruption and the environment – which you can read about in detail in this report. One achievement was our launch of Megalam EnerGuard, a groundbreaking cleanroom filter for the life science industry that protects the integrity of critical pharmaceutical products throughout the production process to make sure they are protected from contamination. It offers close to 0 percent failure rate with a longer service life, energy cost savings, waste reduction and other efficiencies at a lower cost than other traditional materials. Another was our educational initiative around PM1 – the tiniest and most dangerous particulate matter – called “People Matter 1st”. In terms of the social aspect of sustainability, we received the international GEEIS-SDG trophy in recognition of our leadership in gender equality and diversity at the workplace.

As far as governance goes, we rolled out a strategic three-year plan and an Owner’s Directive, a declaration by Camfil’s owners and embraced by the entire organisation, which firmly places sustainability at the centre of the way we do business.

#### WHAT ABOUT ECONOMIC VIABILITY, WHICH WILL SUSTAIN YOUR BUSINESS?

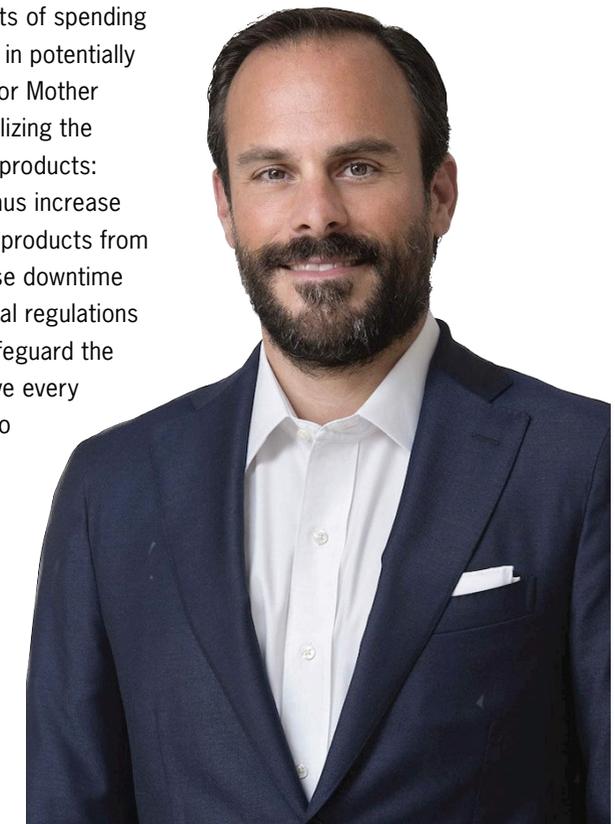
– Camfil had a strong 2019 fiscal year, and we intend to continue making responsible investments in R&D, product innovations and, of course, our community outreach initiatives. In line with our future growth plans, we expanded a facility in the U.S. to meet demand in the premium product segment, we invested in people, facilities and other assets in two key business areas, and we signed an agreement that will allow us to build a new facility to better serve the Asian market. On the employee side, we invested in an improved learning management system that will help us train and retrain our people to meet tomorrow’s trends and challenges.

Demand for our solutions remains as strong as ever, and we see a huge need for our products and services well into the future.

#### ARE YOU SEEING ANY SUSTAINABILITY TRENDS THAT WILL IMPACT CAMFIL'S BUSINESS?

– People have a deeper awareness of health issues than ever before, both human health and that of the environment. Our customers, too, are demanding better solutions that last longer and make their own operations more environmentally

friendly. Everyone is starting to realize the effects of spending roughly 90% of their time indoors and breathing in potentially toxic air pollutants, whether caused by humans or Mother Nature. Companies that buy from Camfil are realizing the human as well as the cost benefits of using our products: they are able to improve employee health and thus increase productivity, protect critical equipment and end products from dust, corrosion and contamination that can cause downtime or permanent failure, meet tougher environmental regulations at their facilities and workplaces, and overall safeguard the health of their companies and their people. I have every reason to believe that Camfil is well positioned to deliver the expertise and solutions needed to secure the future we all want and I will continue support the Global Compact’s principles in the areas of human rights, labour, environment and anti-corruption that I have signed up for.



# Owner's Directive – our governance

Camfil updated its Owner's Directive during 2019, which was accepted by the board of directors. It contains ten fundamental points that set the intentions for the company in order to align with our values, reinforce our clean air message and strengthen our brand equity.

## Highlights include



“Clean Air – A Human Right?”

This vision is intimately linked to issues of sustainability and human rights. Our vision embodies our role as champions in the fight against indoor air pollution and elevates the issue of clean air as a basic human right. It aligns with UN sustainable development goal 3 (Good health and well-being) and goal 13 (Climate action).



“Sustainability”

Our core tenet is that sustainability is not something we do – it should be who we are. We were the first company in our industry to produce a voluntary sustainability report 10 years ago. Today, we continue to set new KPIs and goals for environmental, social and economic sustainability that will positively impact our workforce, our customers and other stakeholders.



“Innovation Leader”

We are not just a manufacturer of clean-air products. We are an expert in the field of air quality and continuously innovate to produce air filters that are more efficient and use less energy. Because we manufacture in-house, we can better uphold our strict quality standards as well as gain the flexibility to adapt to changing market and customer requirements.



“Cool Heads, Passionate Hearts & Clean Hands”

Another important aspect is the way Camfil does business. We operate to the highest standards and have many policies in place governing our behaviour internally and towards the customer. The products we sell to our customers are the same ones we trust and use ourselves. And we want it to be clear to everyone in the company that they must step away from a deal if they feel it might be in conflict with Camfil's values.

# Business Areas



# Filtration Solutions

Camfil's filter offering constitutes the majority of our business. We offer a huge range of high-quality, rigorously tested solutions that clean the indoor air for nearly any filtration or containment need. Whatever the product, the end product is clean air – free of harmful pollutants, dust, dirt, allergens, contaminants, molecular gases and, in some cases, even life-threatening radiation.

## How Camfil filtration solutions benefit people, processes and the environment

Our filters benefit customers and the wider society by improving people's health and performance, protecting critical manufacturing processes, boosting productivity and safeguarding the environment. They are proven to be some of the most energy-efficient air filters on the market today, so they also help building owners reduce their energy consumption and carbon footprint. And through this, they help to lower the significant operational costs associated with customers' HVAC systems.

We generally categorize our filtration solutions into three main benefits: comfort, clean process, and containment. Our **"comfort" air filters** are found in heating, ventilation and air-conditioning (HVAC) systems in places like offices, schools, commercial buildings, government buildings, homes, hospitals and airports. These products deliver clean air that protects people by improving the indoor air quality (IAQ), protecting the HVAC system from contamination, and helping the building owners reduce their energy consumption and carbon footprint.

In **cleanroom processes**, our efficient particulate air (EPA), high-efficiency particulate air (HEPA) and ultra-low particulate air (ULPA) filters protect sensitive advanced manufacturing processes, prevent microbiological contamination in research labs, and eliminate infectious airborne contaminants in the healthcare sector. In heavily regulated industries with strict quality requirements, at manufacturing plants that produce pharmaceuticals, semiconductors or food, or for critical laboratory services, our filters protect the people involved in the processes and ensure the integrity of what is being produced to reduce both human and financial risks.

In the healthcare industry, they meet the most demanding needs and safety standards to contain and serve as the main barrier against highly hazardous biological agents and microorganisms. Camfil has provided top-level biosafety laboratories with air filter systems and filter housing to prevent the release and spread of microorganisms that cause life-threatening diseases like Coronavirus, Ebola, SARS, polio and more.

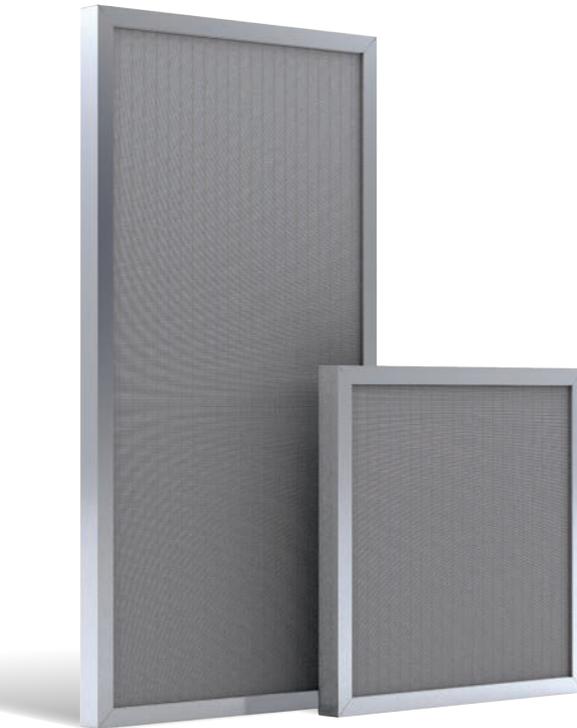
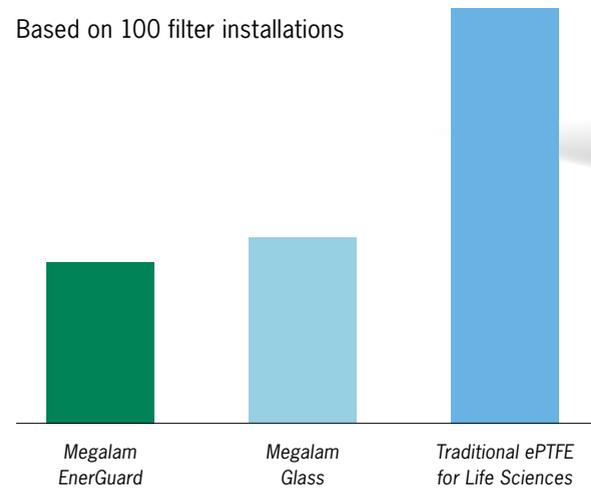


## New filter products and tools

In the autumn 2019 Camfil launched Megalam® EnerGuard™, a breakthrough cleanroom filter resulting from years of research and testing. Designed for demanding applications in industries like life sciences, microelectronics, food and beverage, and healthcare, it protects critical and sensitive products and processes from airborne particulate contamination. As there have been no significant changes in the HEPA filter industry since cleanrooms were conceived over 50 years ago, Camfil believes that EnerGuard will be the first major game-changer in 50 years.

### TOTAL COST OF OWNERSHIP OVER 10 YEARS OF SERVICE LIFE IN COMPARISON

Based on 100 filter installations



EnerGuard offers a close to **0% filter failure rate at installation** reducing unplanned waste of material and labour, time and money. Additionally, the lower pressure drop and long service life help significantly reduce a site's total **energy consumption and CO<sub>2</sub> costs with a lower total cost of ownership (TCO)** than all other HEPA filter technologies.



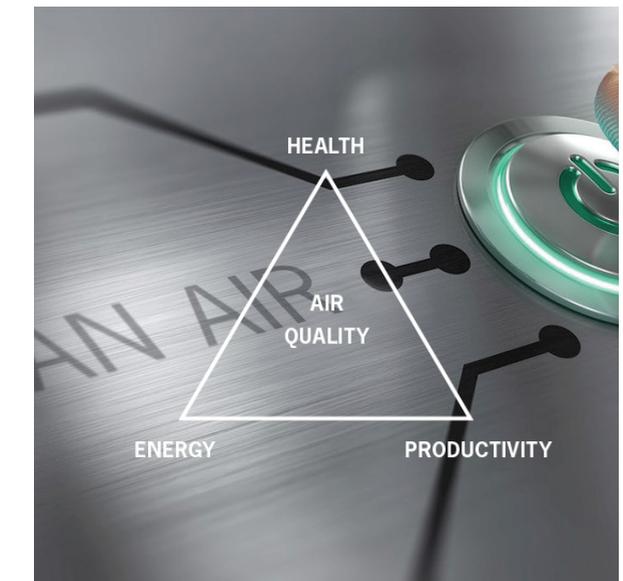
#### OTHER FEATURES AND BENEFITS INCLUDE:

- Media is resistant to damage during handling and operation while still providing the efficiencies needed to maintain ISO cleanroom class levels
- Incorporates the reliable efficiency properties of glass fibre with the physical robustness of polymeric fibres and a low pressure drop to ensure optimal performance
- Immediately substitutable into existing filter configurations
- Certified for life science use, meeting the requirements for safety, traceability and control
- Available in a complete range of efficiencies to suit all current operations

Megalam EnerGuard was launched in the U.S. and is set to launch in Europe and Asia in early 2020.

## Comfort IAQ tool

Camfil's indoor air quality (IAQ) application is a tool used to calculate the air quality within buildings and structures with the goal of improving health, the comfort of building occupants and the environment. The factors impacting the indoor particle concentration include room size, environment, filtration efficiency, particle penetration through the building and others. The tool also takes into account that part of the exhaust air can be recirculated in the room by being mixed with outdoor airflow before passing through the supply air filter. Indoor sources of particles are not included in the model.



# Air filters help gyms stay fit for their visitors

The Urban Apes climbing and bouldering gym in Hamburg, Germany, is a place where children and adults alike can stay fit and have fun. Going to a gym is supposed to keep you healthy – but the air in gyms can be filled with indoor air pollutants and pose a threat to visitors and employees.

## POTENTIAL HEALTH THREATS IN THE GYM

The more intense the exercising, the more air you need to breathe in. And, as some studies show, the more people in the gym area, the more air pollution levels increase. Sources of this poor indoor air quality can be the occupants, dangerous chemicals from cleaning agents and building materials, the HVAC system, and inadequate ventilation and air filtration.

In the case of Urban Apes, many of the climbers use magnesium-carbonate chalk to maintain a good grip while climbing. During peak periods, the total particle concentration measured in their gym therefore spiked to the dust-pollution levels at industrial premises. About half of these particles were the tiny PM1 particles that can get into the lungs and damage health.

What this meant was high concentrations of fine dust in the air – as well as dry mouth and eye irritation from the dry air caused by the properties of the chalk. Urban Apes wanted to improve the gym's air and protect the occupants' health, while keeping energy consumption low.

## CAMFIL AIR CLEANERS GET A WORKOUT AND DELIVER HIGH PERFORMANCE

Camfil filters and air cleaners were brought in to deliver better air filter performance and achieve the best possible indoor air quality. The CC 6000 Air Cleaner, a free-standing unit, was placed in the large gym while the CC 2000 Air Cleaner, a wall-mounted unit, was placed in a smaller room.

## THE BENEFITS INCLUDED:

- Significant improvement in indoor air quality and fewer dust particles in the room air (particle reduction in PM1, PM2.5 and PM10 of 70% and more)
- Improved comfort levels for the athletes, guests and employees
- Less cleaning of premises needed
- Less pressure on their existing ventilation system and extended filter lifetime



# Air Pollution Control



Camfil Air Pollution Control (APC) develops and produces dust, fume and mist collectors for industrial exhaust-air cleaning. These extraction systems are used across a wide range of applications and industries, including metalworking, pharmaceutical, automotive, food and beverage, and mining. Many manufacturing processes create dust, fume or mist that can harm workers' health and cause machinery to be less productive.

## How solutions from Camfil Air Pollution Control promote cleaner, healthier work environments

We help our customers go green by optimizing indoor air quality, helping them comply with safety and environmental regulations, and preventing high levels of pollutants from being exhausted to the outdoor environment. Our systems itself are based on the latest filter technologies that combine the highest cleaning efficiencies, long operation and low energy cost.



### OTHER SUSTAINABILITY-RELATED BENEFITS INCLUDE:

- Helping to prevent health problems caused by dust, fume and mist particles, fire and explosions
- Preventing safety risks such as falling and visibility problems caused by so-called nuisance dusts and mist in the workspace
- Reducing worker discomfort from allergens found in processes and protecting valuable equipment from contamination
- Enabling companies to comply with local and national air-quality requirements both inside and outside the factory

## Air Pollution Control flagship product

Camfil's Gold Series X-Flo industrial dust collector is a best-in-class dust collection system that manages all kinds of toxic and combustible dusts and fumes, including fine, fibrous and heavy dust loads. It processes dust with maximum air flow and dust processing power while delivering energy efficiency during use. The air that comes out of a Gold Series collector has been tested and proven to exceed the air quality required in most hospital rooms.



The Gold Series uses our patented Gold Cone™ filter cartridge to deliver clean air and long service life while using the smallest floor space of any dust collector currently available. It allows facilities to reduce the number of filters they need to use and replace. The innovative cone shape of the media expands the usable area of the filter, enabling a reduction in the number of filters by at least one-third.





## Food ingredients and dust

A Canadian-based provider of wholesale French and Asian-style cakes and pastries that ship to restaurants and grocery stores throughout North America turned to Camfil when it needed a dust collector. The requirements for the dust collector included the ability to collect flour, sugar, baking and dry mix dust from ingredients being dropped into mixers, augers and bin dumpers.

The airborne dust created during these processes is light, fine and has explosive properties. In addition to the explosive properties of the dust, other concerns included employee health and safety, product cross-contamination, and manufacturing equipment problems and failures caused by the airborne dust. The dust collector that was in place was undersized, poorly manufactured, and filter life was very short.

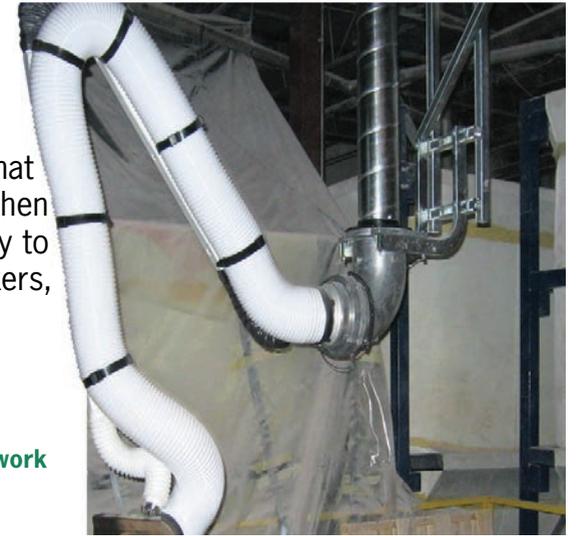
**Camfil developed a plan that included Gold Series (with 16 cartridge filters) combined with different source capture equipment including food-grade extraction arms.** Modifications were made to the processing equipment and workflow practices were adjusted to help reduce and eliminate major dust.

**The Gold Series helped create a safe, clean and efficient work environment for the employees. The Gold Series dust collector also helped the company obtain the certifications it needed.**

According to the owner, one of the biggest

accomplishments was that **“the employees no longer have to wear dust masks while they work and waste is down substantially as well”.**

The Gold Series installation took place working around the existing infrastructure and without interrupting the food production environment workflow. The Gold Series Dust collector is operating efficiently for two work shifts seven days a week.



# Power Systems



Camfil Power Systems (PS) provides filtration and acoustical solutions for turbomachinery including gas turbines, generators, industrial air compressors and diesel engines. Turbomachinery technology has evolved tremendously over the past decades. But this progress has also made turbomachinery more susceptible to fine particulates that cause fouling and corrosion, leading to more rapid degradation of performance. At the same time, stricter emission regulations are requiring newer, more efficient technologies on the filtration side that are adapted to changing environmental conditions.

Power systems solutions optimise engine performance, extend equipment component life and increase uptime by removing particles that could degrade the turbomachinery due to erosion, fouling and corrosion. They are manufactured to the highest standards and are equipped with proprietary Camfil filters to ensure that customers operate their assets reliably and efficiently.

## How Camfil Power Systems helps customers reduce their carbon footprint

### BOOST TO REDUCE – A CO<sub>2</sub> REDUCTION AWARENESS CAMPAIGN

Camfil is running an educational campaign to encourage customers to cut their total CO<sub>2</sub> emissions. Since fouled gas turbines become less efficient, they need to burn more fuel to generate the same power or they need to find another way to make up the lost power. As a consequence of burning more fuel, carbon emissions also increase per megawatt hour produced.

A simple way for these customers to get cleaner-running engines with less fouling, corrosion and air resistance consists of simply upgrading the filter solution with Camfil's hydrophobic, high efficiency EPA filter solution.

In addition to reducing the carbon footprint and lowering the impact on climate change, benefits include increased profitability, reliability, availability and a safer working environment.



THE CAMPAIGN PRESENTED A CASE WHERE AN UPGRADE FROM A STANDARD M6 FILTER COULD SLASH TOTAL CO<sub>2</sub> EMISSIONS BY 5%. IN THIS CASE

**35 000**

TONNES WHICH IS EQUIVALENT TO REMOVING 18.000 CARS FROM THE ROAD.



### TEST & LEARN EVENTS - HANDS-ON TRAINING

Camfil regularly welcomes customers to its gas-turbine filtration labs at its Test & Learn centres in North America, Europe and Asia. There, we train customers and help them improve their knowledge of air filtration and gas turbines through intensive courses that involve both theory and practice.

Objectives of the training include: gaining an understanding of basic air-intake filters and gas turbine theory; understanding engine degradation caused by erosion, fouling and corrosion and how to mitigate its risks; identifying environmental/site conditions to determine the type of contaminants that are affecting

the customer's gas turbines; and understanding how to design an inlet system according to specific site conditions.

The training sessions attracted over 200 participants in 2019.

### WATCH & LEARN – A NEW VIDEO LEARNING SERIES

In 2019, Camfil expanded its Test & Learn programme with an entertaining and educational video series. Watch & Learn teaches customers about the impact of air filtration on their gas turbines and other turbomachinery in industries like power generation, oil and gas, and process industries.

# Gas turbines breathe new life

Camfil helps customer increase power output with a lower carbon intensity

Several paper companies manage cogeneration factories where they operate 44MW gas turbines with high availability requirements (8500 hours/year).

In an effort to increase the performance of the gas turbines, Camfil Power Systems was asked to optimize the existing filtration system for three paper factories. The aim of the collaboration was to decrease the total filtration system dP (pressure drop) to achieve the following:

- More power output for the same fuel consumption
- Extended filter lifetime
- Less time and effort required for filter replacement
- Higher engine protection and availability

## THE SITE

The sites are located in coastal to land-based conditions, where air quality can be challenging. Relative humidity is moderate to high with an average of 73%, and Camfil's Air Analysis team estimated 45µg/m<sup>3</sup> PM10 dust concentrations. **This is 77% higher than the recommended annual WHO standard.**

## CAMFIL SOLUTION

Camfil conducted several site surveys to recommend the optimal air filter solution to enhance the performance of the engines. The shortest possible installation time during

scheduled maintenance was a fundamental prerequisite.

Based on environmental and operational conditions, the OEM and customer decided to upgrade the existing system to a 2-stage static filter solution.

## THIS SYSTEM HAS THE FOLLOWING ADVANTAGES:

- Low and stable dP, even under wet and humid conditions:
  - prefilter life time expectation > 1 year
  - final filter EPA Class life time expectation > 3 years
- Greater engine protection due to EPA efficiency and efficient water drainage
- Flexible design

This solution has produced additional savings for the end user in terms of maintenance and operating costs, as well as superior engine protection and air cleanliness.

Additionally, since pressure drop and efficiency class has improved, fuel consumption has also decreased per megawatt hour produced. This means that the carbon intensity is impacted positively by approximately 2% as a result of filtration.



### INCREASE FILTER LIFETIME

- Prefilter lifetime expectation > 1 year
- Final filter class lifetime expectation > 3 years



### INCREASE POWER OUTPUT

- Reduce pressure drop by 48%
- Increase power output by 1300 MWh /Yr



### INCREASE AIR INLET QUALITY

- EPA efficiency decreases engine degradation

### RESULTS:

- From 3 to 1 prefilter changes per year
- Final filter life expectation from 1 to 3 years
- Gain of 1300 MWh per year with a lower carbon intensity

# Molecular Contamination Control



Molecular Contamination Control (MCC) products remove molecules, gases and vapours from the air that cannot be captured using ordinary particle filters. Molecules are typically 1,000 to 10,000 times smaller than the most penetrating particles that pass through HEPA and ULPA filters.

Chemicals present in gas form in the atmosphere either outdoor or inside buildings include polyaromatic hydrocarbons, volatile organic compounds (VOC), benzene, isocyanates and siloxanes, to name just a few. They all require molecular filtration to protect people, processes or machinery, or simply to remove odours. Many of these chemicals are airborne and can mix to form a dangerous cocktail with unknown health impacts.

## How Camfil's molecular contamination solutions contribute to sustainability

### INDOOR AIR QUALITY:

Protect people staying inside buildings like airports, offices, hospitals or laboratories.

### EXHAUST:

Protect people and the environment from odours and toxins emitted in exhaust air streams from industrial or power generation facilities.

### CORROSION CONTROL:

Protect sensitive electrical process control systems from acidic gases in petrochemical, pulp and paper, metal refining, printed circuit board manufacturing, data centres and wastewater treatment facilities. Corrosion control is also important for protecting artefacts in museums and storage facilities.

### MICROELECTRONICS:

Enhance yield in semiconductor wafer manufacturing, flat panel displays, hard disk drives and equipment. Protect from outdoor and process chemicals present at trace levels in the air.

## New products

### CAMCARB VG

In 2019, Camfil launched a new version of CamCarb VG 440, a molecular filter used for corrosion control in heavy process industries and in general ventilation systems in places like airports, museums and offices.

A revolutionary product design allows the use of smaller adsorbents in order to more than double the product lifetime compared with existing competing solutions. This in turn results in less waste,



longer service intervals and a reduced environmental footprint.

Additionally, the Camfil CamCarb molecular filter range was greatly enhanced by implementing a new product labelling system that focuses on target gas rather than media types. The clarity in product descriptions ensures that our customers select the products best adapted to their gaseous contamination concerns, with maximized product life and removal efficiency and therefore lowest waste generation.



### TREATING ORGANIC WASTE AT BIOGAS PLANTS

When biodegradable organic waste is collected or segregated from a mixed waste stream, it provides value as a fuel for energy production or as raw material for compost or fertilizer. Any biodegradation process produces a complex mixture of gases which can create an odour nuisance or, in the case of biogas, a corrosion hazard for combustion engines. Camfil's robust molecular filters help to eliminate these problems and remove the heavily contaminated gases from this highly valuable resource for renewable energy, compost and soil enhancers.

## How Camfil is preventing street level pollution by removing nitrogen dioxide in Hong Kong tunnel

### WORLD'S LARGEST AIR PURIFICATION SYSTEM

According to the United Nations Environment Programme, 92 percent of people in the Asia-Pacific region are exposed to high level of air pollution that pose significant risk to health.



Highways Department in Hong Kong came up with an incredible solution to alleviate the traffic congestion and tackle the serious problem of air pollution. The Central-Wan Chai Bypass is a 4.5km link road, comprising of a flyover and 3.7km tunnel section that has air purification systems **capable of removing at least 80 percent of key pollutants from roadside emissions.** In Hong Kong, it is the first air purification system in a tunnel and the largest in the world in terms of air volume handled that removes harmful particulates, nitrogen dioxide and other key roadside pollutants.

### WHAT ROLE CAMFIL PLAYED IN THE PROJECT?

The tunnel can handle 5,4 million cubic metres of vehicle exhaust per hour and large tunnel exhaust passes air to 3 ventilation buildings along the tunnel section of the project. First step to air purification is separating respirable suspended particulates through Electrostatic Precipitators. Next, the air passes through the denitrification filter which is using activated carbon to remove nitrogen dioxide. Lastly, purified air is discharged into the adjacent atmosphere to prevent street level pollution.

Camfil provided 860 tonnes of activated carbon for the denitrification filter. The carbon was tested in our innovative advanced research lab in The Tech Centre located in Trosa, Sweden. Camfil is adept in testing the performance of molecular air cleaning media and devices for ventilation applications and uses the global



standard test method described in ISO10121. To support our global activities, Camfil operate a second ISO10121 test laboratory in Malaysia.

Activated carbon is a powerful and extremely resourceful adsorbent and is used in many molecular air purification solutions. A specific activated carbon can be selected to target odours, irritants and toxic gases, such as volatile organic compounds (VOC), nitrogen dioxide and ozone.

### EFFECTIVE RESULTS FOR HONG KONG'S HIGHWAY DEPARTMENT

As per Kevin Lo, Highways Department Hong Kong, **“The Central-Wan Chai Bypass tunnel can reduce carbon dioxide emission up to 11,000 tonnes annually as it cuts the journey time to 5 minutes which was previously reported as 30 minutes. It will take 480,000 trees to absorb this level of carbon dioxide emission from the environment. “**

“Camfil is proud to have been involved in this landmark infrastructure project. The tunnel is easing congestion, making travel more efficient for thousands of motorists every day and reducing carbon footprint. Camfil, in their state-of-the-art molecular filtration laboratory evaluated and proved the ability of a filtration media to remove nitrogen dioxide. This thorough study included

tests at a range of temperature and humidity conditions, to ensure filter efficiency under all seasonal conditions experienced in Hong Kong. The tests were conducted in accordance with the global test standard ISO10121. Our contribution to the Central Wan Chai Bypass tunnel is protecting the health of local residents at street level and in high-rise buildings near the tunnel exhaust points.” – Dr. Chris Ecob, Global Applications and Solutions Director, Molecular Contamination Control Division at Camfil



### ROAD AHEAD

Camfil's molecular air filters hold a great potential apart from purifying the air from hazardous gases and odours, molecular filters can be made from different sustainable raw materials, in different qualities, shapes and sizes. Our innovative design and strong research and development allows us to conserve more, use less and find better ways so that purifying air becomes easier and better.

# Our sustainability targets and KPIs

KEY PERFORMANCE INDICATOR (KPI)	RISK	GOVERNANCE	2020 TARGET		RESULTS/OUTCOME		WHERE THE IMPACT OCCURS	
<b>MINIMIZED ENERGY USE FOR OUR CUSTOMERS (PRODUCT SUSTAINABILITY)</b>	Increased energy consumption for end user, which leads to increased CO <sub>2</sub> emissions.	Products are certified by Eurovent. Train and inform sales force and customers in Life Cycle Cost tool.	<b>5</b> % increase of Eurovent energy classification sales of A and A+ filters per year.		<b>A+/A</b> New classifications introduced in 2019.		At the end user	<b>PAGE 30</b>
<b>REDUCED ENERGY CONSUMPTION (PRODUCTION SUSTAINABILITY)</b>	Increased cost for the company and increased CO <sub>2</sub> emissions for the world.	Camfil's global operational scorecard measures energy consumption as related to total production.	<b>2</b> % reduced energy consumption annually in relation to production volume.		<b>NO</b> change in energy consumption in relation to production volume during 2019.		Both internally and externally	<b>PAGE 34</b>
<b>INCREASED MATERIAL UTILISATION AND REDUCED WASTE (PRODUCTION SUSTAINABILITY - ENVIRONMENT)</b>	Increased cost for the company and unnecessary use of natural resources.	Waste is measured both in relation to total consumption and destination (recycling, landfill, incineration) in the global operational scorecard. Material utilisation is measured continuously in yield.	<b>ONE</b> new factory per year implemented with yield system. <b>1</b> % reduced waste annually in relation to production volume.		<b>FIVE</b> production units are implemented with yield system today. <b>11</b> % increase of waste in relation to production volume		Both internally and externally	<b>PAGE 34</b>
<b>BE AN EQUAL OPPORTUNITY EMPLOYER (HUMAN RIGHTS)</b>	More difficult to attract and retain employees.	Owner's Directive and Global Diversity and Equal Opportunities policy (DEOP) Implemented locally and available in 12 languages.	All major Camfil production companies should be GEEIS certified (level 1) by the end of 2022 to build a stronger brand as an attractive employer.		Today: <b>9 COMPANIES CERTIFIED.</b>		Internally at Camfil and our employees	<b>PAGE 44</b>
<b>SAFE AND HEALTHY WORKPLACES (LABOUR)</b>	Increased risk for occupational safety and health incidents or injuries.	Global Health & Safety Handbook is implemented locally and available in many languages. Camfil's global operational scorecard measures the number of recordable Occupational Safety and Health (OSHA) injuries monthly. Sick leave per 100 workdays is measured annually.	<b>2.5</b> % Sick leave	<b>2.5</b> OSHA rate	<b>3.0</b> % Sick leave	<b>3.3</b> OSHA rate	Internally at Camfil and our employees	<b>PAGE 39</b>
<b>ANTI-CORRUPTION</b>	Corruption and bribery. Loss of reputation and heavy economic impact.	Owner's Directive and Trade compliance policy and Code of Conduct in our CamfilCairing code. Whistleblowing process with 3rd party partner to ensure anonymity. Implemented and available in 13 languages.	<b>100</b> % of senior management and sales managers working with listed countries should have participated in trade compliance training.		<b>88</b> % have completed trade compliance webinars and have received training material.		Both internally and externally	<b>PAGE 48</b>



# Environment

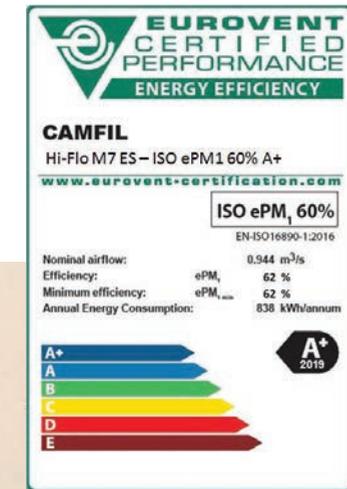
# Product sustainability

## MINIMIZING ENERGY USE FOR OUR CUSTOMERS

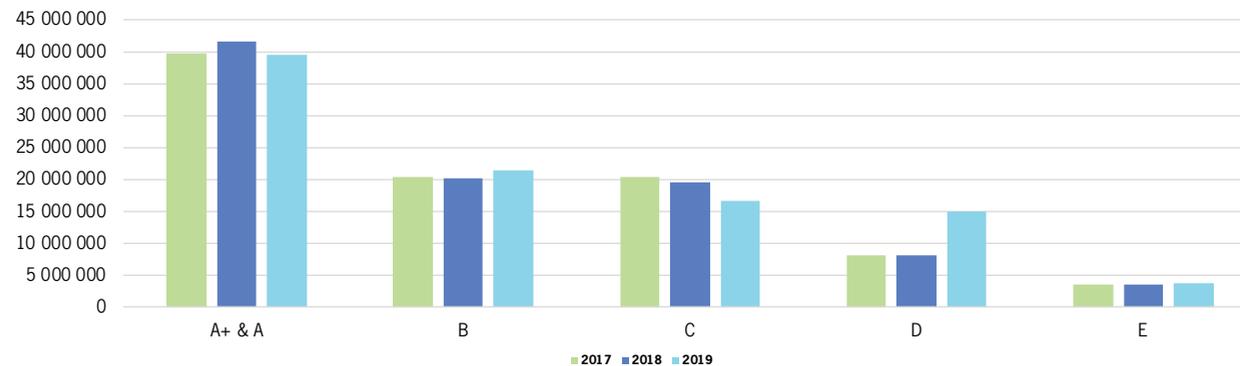
As demands to reduce CO<sub>2</sub> emissions get tougher, energy prices increase, and people are more aware of the effects of bad air on their health, the energy consumption of air filters in ventilation systems has drawn much attention. 2019 marked a new class of air filter energy efficiency. On 1 January, an updated energy classification system by certification body Eurovent became effective. Camfil collaborated with Eurovent on this new classification.

Today, all ePM1, ePM2,5 and ePM10 air filters in full size and family sizes can be graded from A+ to E. Grade A+ indicates the lowest energy consumption and E the highest. The classification, based on EN ISO 16890, gives people a better understanding of a filter's annual energy consumption, initial efficiency and minimum efficiency. Eurovent's new classification method is more objective and stringent than before, something which Camfil welcomes.

Eurovent's updated system helps consumers find the right air filter with the lowest energy usage combined with the highest indoor air quality. Using the right air filter not only helps our customers maintain healthy indoor air quality, but also helps to save energy and money. Camfil clearly displays the Eurovent ratings on its product packages. In the U.S., Camfil's premium filters carry a 5-star rating.



## SALES PER EUROVENT ENERGY CLASSIFICATION EUR



These numbers relates to the countries that are included in Eurovent only. Not all countries were Camfil has business. New Eurovent regulations have changed the classification criteria for all energy rated filters. Therefore the numbers are not 100% comparable from 2018 to 2019.

## Camfil provides high-efficiency air filtration solution for new nuclear power station in the UK with an aim to reduce carbon emissions

Under construction in Somerset, United Kingdom, Hinkley Point C will be amongst the safest and most efficient new nuclear power stations of its type. The third generation EPR (European Pressurized Water Reactor) has an operational lifetime of 60 years and is designed to use less uranium and produce less waste.

Coming online in 2025, Hinkley Point C will provide the UK with enough low-carbon electricity to power some 6 million homes.

Camfil's efforts and uniquely designed technology to furnish nuclear-grade equipment and air filters for the world's biggest power producers with over 50 years of experience, makes Camfil the best choice for air filtration solution at Hinkley Point C.

Camfil is committed to deliver air filtration solution in 3 phases which will comprise of

- Nuclear platform housings to supply clean air through the air intake systems and to handle air flow up to 100,000 cubic metres per hour
- 100 Nuclear Tight lock casing accommodating more than 400 high performance HEPA filters to exhaust clean air through the air outtake systems
- 30 gas-phase adsorption systems handling air flows up to 40,000 cubic metres per hour

"Camfil's expertise and skills are a force for the successful execution of the Hinkley point C project" – Mathieu Herlemont, HVAC Package Lead Manager, Engie Solutions.

Michel Moulin, Managing Director from Camfil France said: "Camfil has worked with more than 90 power plants around the world since the 1960s. Today, we are the global leader in nuclear particulate and gas-phase filtration and Hinkley Point C is an important part of the power network and we are delighted to be part of this project. Our contract covers all aspects of design, development, manufacturing, testing and supply in accordance with the challenging technical and performance requirements of the customer."

Air cleaning and quality control along with containment systems are most vital in minimising public exposure to radioactive material and protecting public safety inside and outside the nuclear power station. Camfil offers high quality solutions for best-in-class energy and power system facilities that are designed and developed by world-class professionals in the industry.



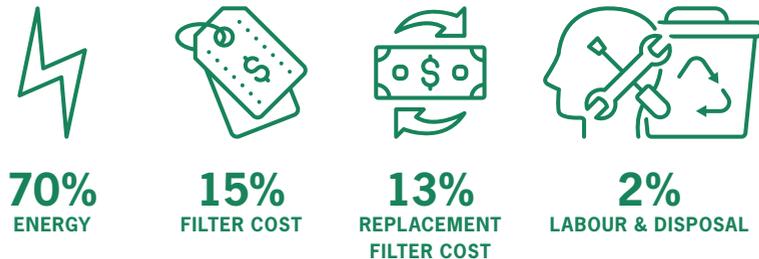
"CAMFIL'S EXPERTISE AND SKILLS ARE A FORCE FOR THE SUCCESSFUL EXECUTION OF THE HINKLEY POINT C PROJECT"  
– Mathieu Herlemont, HVAC Package Lead Manager, Engie Solutions

# Product innovation for sustainability

Innovation and a strong R&D focus are cornerstones for successful manufacturing companies, and Camfil is no exception. The awareness of our environmental footprint remains a key focus in all product development and innovation activities.

From a customer perspective, the two primary value-adds resulting from sustainable product development are (1) lowest total cost of ownership (TCO) and (2) the reliable delivery of clean air. Over the lifetime of owning an air filter, the cost is typically divided as follows: 70% is related to energy consumption, 15% to the purchase cost and 15% to other factors, including a fairly significant portion for waste treatment and recycling. It is therefore a natural part of our job to focus much of our development efforts on minimizing energy consumption as well as simplifying the effort to recycle or reuse our products.

## WHAT IS TOTAL COST OF OWNERSHIP IN NUMBERS?



We always approach each new product or enhancement from two perspectives: the customer perspective and product life cycle perspective.

The lifecycle perspective is especially helpful when trying to identify the potential to reduce the product's environmental footprint. Early in the development phase of the product's life, we typically evaluate the choice of raw materials, means of manufacturing these materials, and effects of transportation and logistics. In the manufacturing phase, we also evaluate our internal processes in terms of energy use, complimentary raw materials, ergonomics and work environment, internal waste treatment and recycling.

Further along in the chain we look at transport distances, optimal location for production, volume and weight efficiencies in packaging, and mode of transport to customers and local warehouses. In the use phase, most effort goes into minimizing the overall energy consumption and ensuring health and safety for the maintenance staff who often handles the used contaminated air filters. Finally, in the end of life we place efforts on minimizing general waste, whenever possible ensuring that the waste can be easily separated into recyclable or reusable fractions.

To ensure that we optimize our environmental choices and maintain a holistic view of sustainability on during product development, we use state-of-the-art life cycle analysis (LCA) simulation tools. These tools enable us to model the entire product life cycle from cradle to grave, including all life cycle phases and components of the product. The modelling tools translate the environmental impact of our choices into a common unit, CO<sub>2</sub> equivalents. This is highly effective in judging what the impact of, for example, a certain choice of new filter media on the overall environmental footprint of the product.



Camfil's use of modern LCA modelling software now enables a more rapid, accurate and complete modelling of the environmental impact of our development choices.

## HELPING TO DEVELOP INDUSTRY STANDARDS

Camfil actively participates on standards committees to ensure that a good balance is achieved between filtration efficiency and energy efficiency in general ventilation systems. Industry standards and governmental regulations preserve this balance and help drive the development of innovative solutions that simultaneously increase both these elements in order to safeguard people's health and conserve energy.

# 11 SUSTAINABLE CITIES AND COMMUNITIES



SDG 11 aims to reduce the adverse environmental impact of cities by 2030, including by paying special attention to air quality.

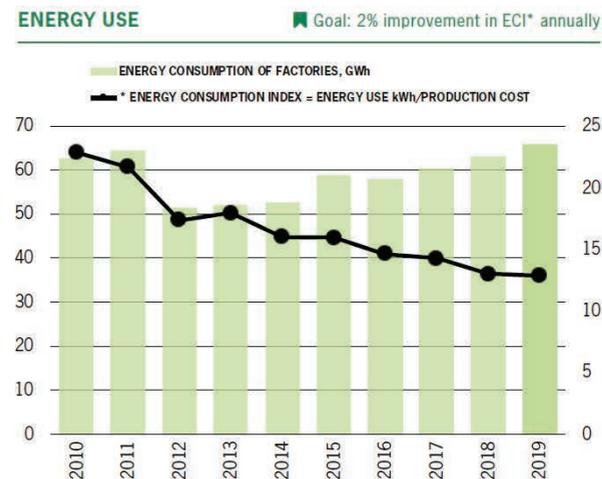
According to the World Health Organization, more than 90% of the world's population live in places exceeding WHO air quality guidelines. Camfil's air filters and clean air solutions are some of the most energy-efficient on the market, and help purify the indoor air and create more sustainable buildings around the world where people live, study and work.

Also related to this SDG, Camfil engages employees in local sustainability and corporate social responsibility actions through a programme called CamfilCairing. This global, group-wide programme demonstrates how Camfil cares about the air we breathe and wider environmental issues. It integrates sustainability initiatives and good corporate citizenship into our business strategy. As part of the programme, each year Camfil companies host a Cairing Week during which we place a special focus on community outreach events and internal improvement measures related to our business of promoting health and well-being through clean air. From beach clean-ups to resource efficiency programs to raising health awareness, our people engage, educate and inspire.

# Production Sustainability

## REDUCING ENERGY CONSUMPTION

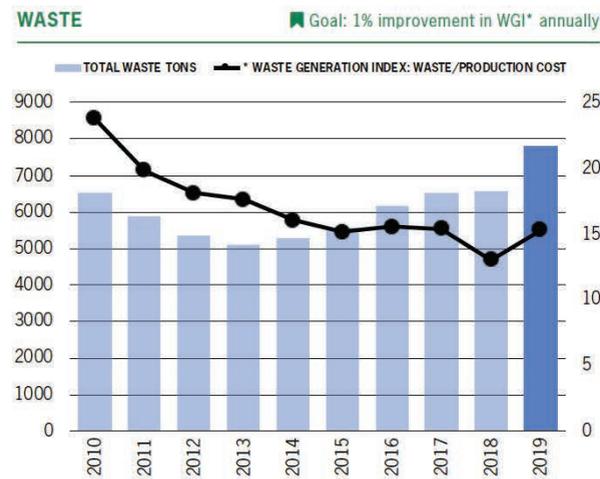
Waste and energy reduction measures are a key aspect of Camfil's strategic three-year plan. We continuously track our energy consumption, and in 2019 we set a new target for achieving an annual 2% reduction in energy consumed. Because Camfil is growing, we decided to list comparisons of our production cost (cost of goods sold). This of course depends on raw material prices and product mix, but for Camfil as a group, we believe it gives a good enough indication of our work in this area.



## INCREASING MATERIAL UTILISATION AND REDUCING WASTE

Waste reduction at the company is a key aspect of Camfil's strategic three-year plan.

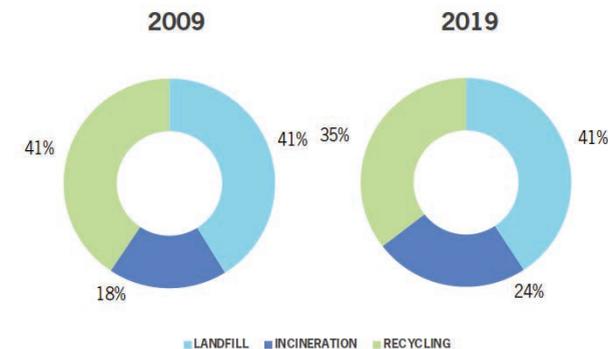
The process starts already when Camfil is buying filter media from our suppliers. Producing filter media that is not used in the finished filter products amounts to the unnecessary use of natural resources, energy, and transports. Reducing waste from this process is therefore crucial. We began to measure material utilisation in Sweden several years ago and in conjunction with this we developed a production yield system.



We want to implement yield systems in our major production units so that we can capture measurement data that will allow us to identify and analyse where in the process the filter media scrap arises. We use our production yield system to plan and minimise set-up times that can lead to filter media scrap. Measurements allow us to sharpen our focus so that we can make improvements.

Part of the increase in waste index is related to improved reporting routine and recent acquisitions. Camfil's routines for waste handling and reporting in these acquisitions is being implemented continuously and we believe this negative trend will flatten out in the coming years for this reason.

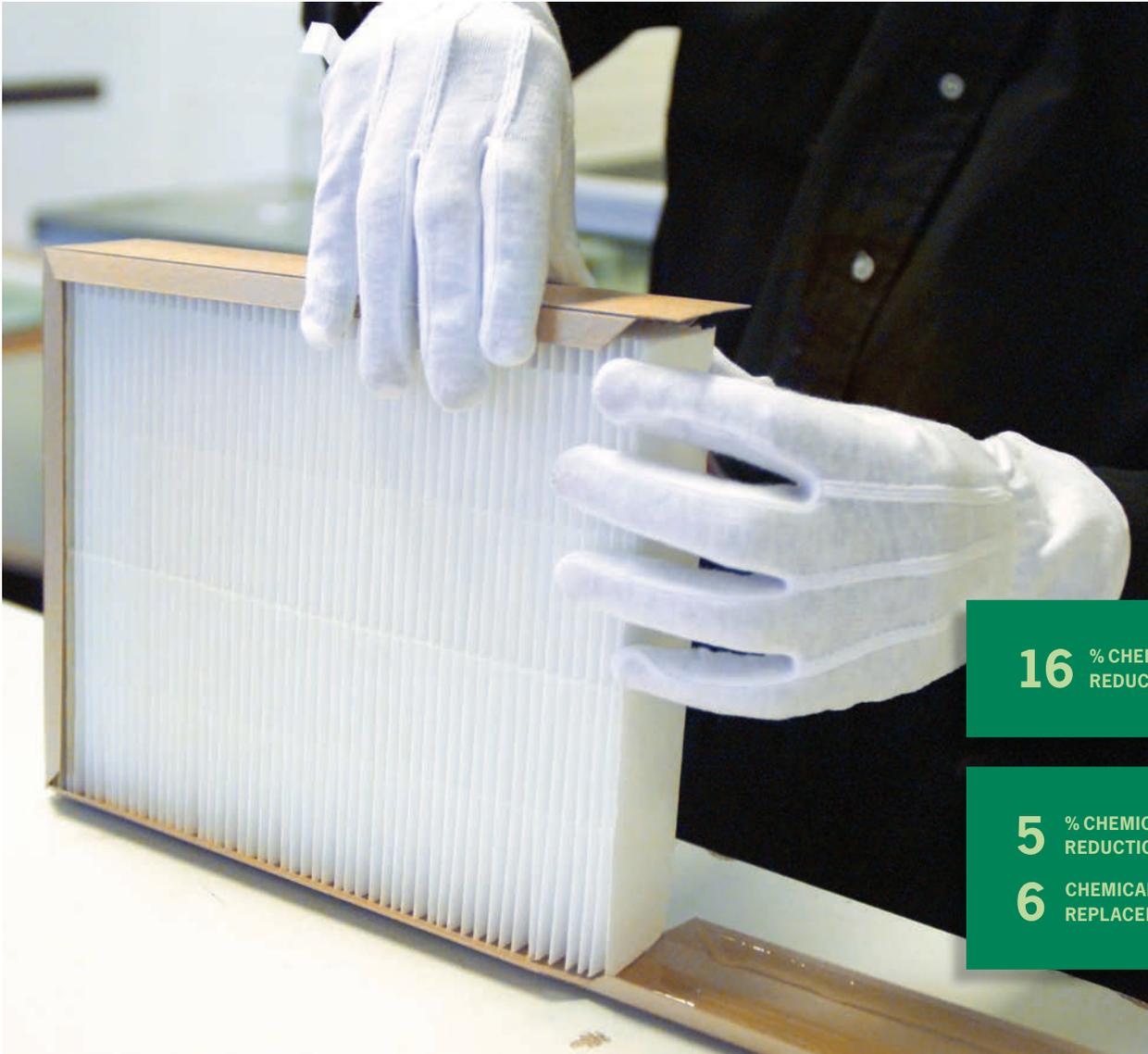
## WASTE DESTINATION



## HERE ARE SOME WAYS WE INCREASE MATERIAL UTILISATION:

- By having well-functioning production equipment. This enables us to control the media in a way that reduces the need to cut off too much media material during production and can thus reduce rolling widths and the use of natural resources.
- By splicing the media more effectively and fewer times during set-up.
- Through better production planning.
- By having a stable process, which enables us to achieve a more stable quality.
- By continuously training and educating our staff.

Each production unit that has implemented a yield system has set its own targets, using measurements it has taken, to increase its material utilisation. By 2022 we aim to reduce our scrap rate by 1% annually and have implemented a production yield system in one new factory each year.



**16** % CHEMICAL  
REDUCTION

**5** % CHEMICAL  
REDUCTION

**6** CHEMICALS  
REPLACED

## Chemicals

To prevent damage to people and the environment, we must comply with applicable laws and regulations regarding chemicals and hazardous substances. To this end, we always conduct risk assessments to ensure that we use the right protective equipment and that we have instructions in place describing how to work safely. We also need to understand how to handle potentially hazardous waste properly and, of course, ensure that we end up with as little hazardous waste as possible.

Our plant in Malaysia started a project in 2018 to reduce the number of chemicals in the production. The systematic work has, after one year, resulted in a reduction in the number of chemicals with more than 16%. In conjunction with this work, new routines for control and procurement have been developed and implemented and training for relevant personnel has been executed.

Our facility in Trosa, Sweden, installed a chemical management system in 2018 to establish good governance and follow-up routines for the chemicals used in our business. Over the course of one year we succeeded in reducing the number of chemicals by 5 percent, and 6 chemicals were replaced by alternatives that are better for humans as well as the environment. Our efforts to reduce chemicals that bear the hazard symbol continue at our factories around the world.

## ISO certifications

The purpose of obtaining ISO certification is to ensure continual improvement of processes and procedures so that we can provide better products and services and, as a result, have more satisfied stakeholders. The ISO standards guide us in these efforts and underpin our success.

Today's ISO standards differ from what they were only a few years ago. They now enable certification to multiple standards. We can use simple language, images, illustrations and videos instead of a stockpile of written documents. Camfil's intranet is part of our management system, where we share local and global manuals, training material and other key documents.

Certification is fundamental for us – it serves an aid to monitor and evaluate the business, competitors and trends. We are making progress on reducing risks and ensuring compliance with laws, regulations and other requirements. This means that we can keep our own house in order as we perform our daily tasks.

The current standards also provide scope for developing one's corporate culture and values, something that represents one of Camfil's major strengths.

We are proud to state that most of our production units are ISO-certified. A new achievement for 2019, our R&D Tech Centre in Trosa, Sweden, was awarded ISO 9001 certification. This represents a huge step towards our goal of receiving ISO 17025 certification in 2020.



# 12 RESPONSIBLE CONSUMPTION AND PRODUCTION



SDG 12 calls for actions to improve resource efficiency, reduce waste and mainstream sustainability practices.

One of its sub-targets is to ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles. As with most manufacturing companies, Camfil's own operations generate emissions that have negative impacts in relation to SDG 12.

Camfil is committed to reducing such impacts. Each year, we have been improving on production and consumption impacts through our management systems, sustainability targets, green initiatives and Best Available Technologies. We educate consumers about energy efficiency and provide information by clearly displaying Eurovent's energy efficiency label on the product packaging of our comfort filters. We also offer filter schools, testing labs and learning experiences at various Camfil academies and universities worldwide to raise awareness of air quality issues.



# Labour

# Maintaining safe and healthy work places

At Camfil, we believe that employee well-being, health and safety are an essential part of being a sustainable employer. This is why Camfil uses a global operational scorecard to measure the number of recordable occupational safety and health (OSHA) injuries. This is one of the company's key performance indicators and is defined as an injury that usually requires professional medical attention. It is measured monthly, while lost workdays are measured annually.

Most of the increase in lost workdays for 2018 was related to two acquisitions that year of companies that had significantly higher numbers. During 2019, we therefore implemented Camfil's routines for health and safety in these acquisitions. In France, our subsidiary Chimbault succeeded in reducing the number of lost days caused by work injury from 316 days in 2018 to only 15 days in 2019. They first analysed the cause of the accidents and then implemented an action-plan to prevent them from happening again. Each month, the Quality Director comes to the factory to follow up on safety and security with the local management team and the local Quality Manager.

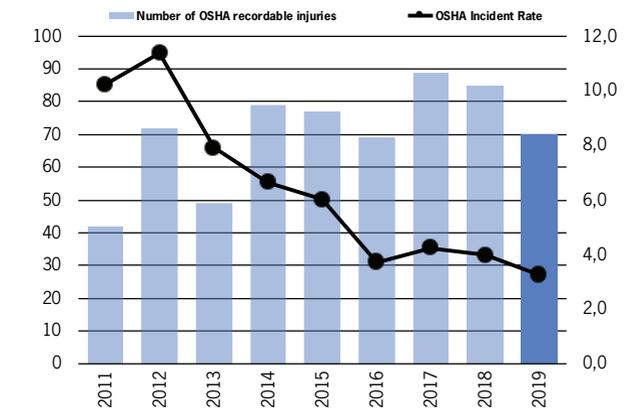
## EXAMPLES OF ACTIONS:

- Improved the storage areas in the workshops.
- Installed signs to warn of dangerous areas.
- Enforced the use of individual protective equipment.
- Introduced displays that monitor quality and accident indicators in the workshops.

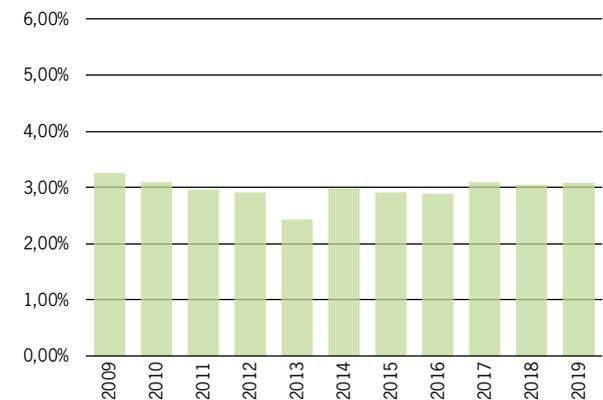
**OUR KEY POLICIES THAT ADDRESS PEOPLE AND SAFETY MANAGEMENT AT CAMFIL INCLUDE:**

- Global Health & Safety Handbook, implemented locally and available in several different languages
- Code of Conduct

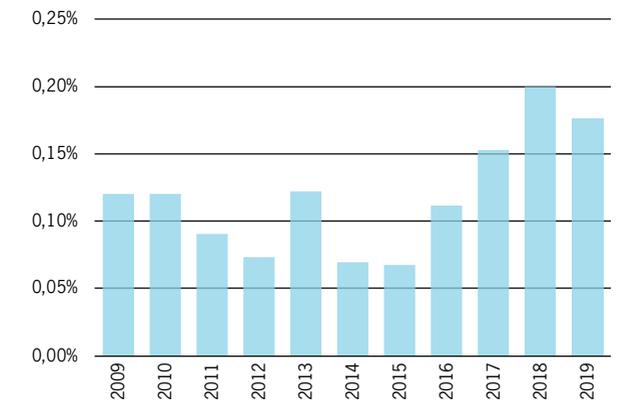
## OCCUPATIONAL SAFETY AND HEALTH ■ Goal: 2,5 OSHA Rate



## NUMBER OF SICK LEAVE DAYS PER 100 WORK DAYS ■ Goal: 2.5%



## LOST WORK DAYS DUE TO OCCUPATIONAL INJURIES PER 100 WORK DAYS ■ Goal: 0.07%



# Servifiltro – a Spanish success story from Guadalajara

Since the Camfil Group acquired Servifiltro, a comfort filtration company based in Cabanillas del Campo in Guadalajara, Spain, the company has seen many improvements related to both the workforce and the workplace. Camfil's substantial financial investments have improved labour conditions, production space, safety and quality standards, and employee engagement.



## FACILITY IMPROVEMENTS INCLUDED:

- Designated fire-safety areas (production, warehouse, etc.) according to local regulations
- New fire-detection system
- Upgraded all lights to low-energy LED lighting, drastically reducing electricity consumption
- New office space, cantina, employee areas
- A new, more ergonomic production floor built



## IMPROVEMENTS IN WORK ENVIRONMENT QUALITY INCLUDED:

- Additional 750 square metres available for production
- New equipment and material flow design, providing additional space for operators
- Improved compensation schemes for the workforce
- Move from a strict organisational hierarchy to a more process-oriented hierarchy
- Section leaders nominated, clear functions and responsibilities defined, and agreed and salary improvement according to new responsibilities
- Quality improvement plan to bring Servifiltro up to Camfil's quality standards

# Crystal Lake, USA – facility expansion and renovation wins community award

In 2018, Camfil USA began a much-anticipated journey of expansion and renovation of its facility in Crystal Lake, Illinois. The 50,000-square-foot (SF) expansion aimed to add six new product lines and create more jobs in the local community.

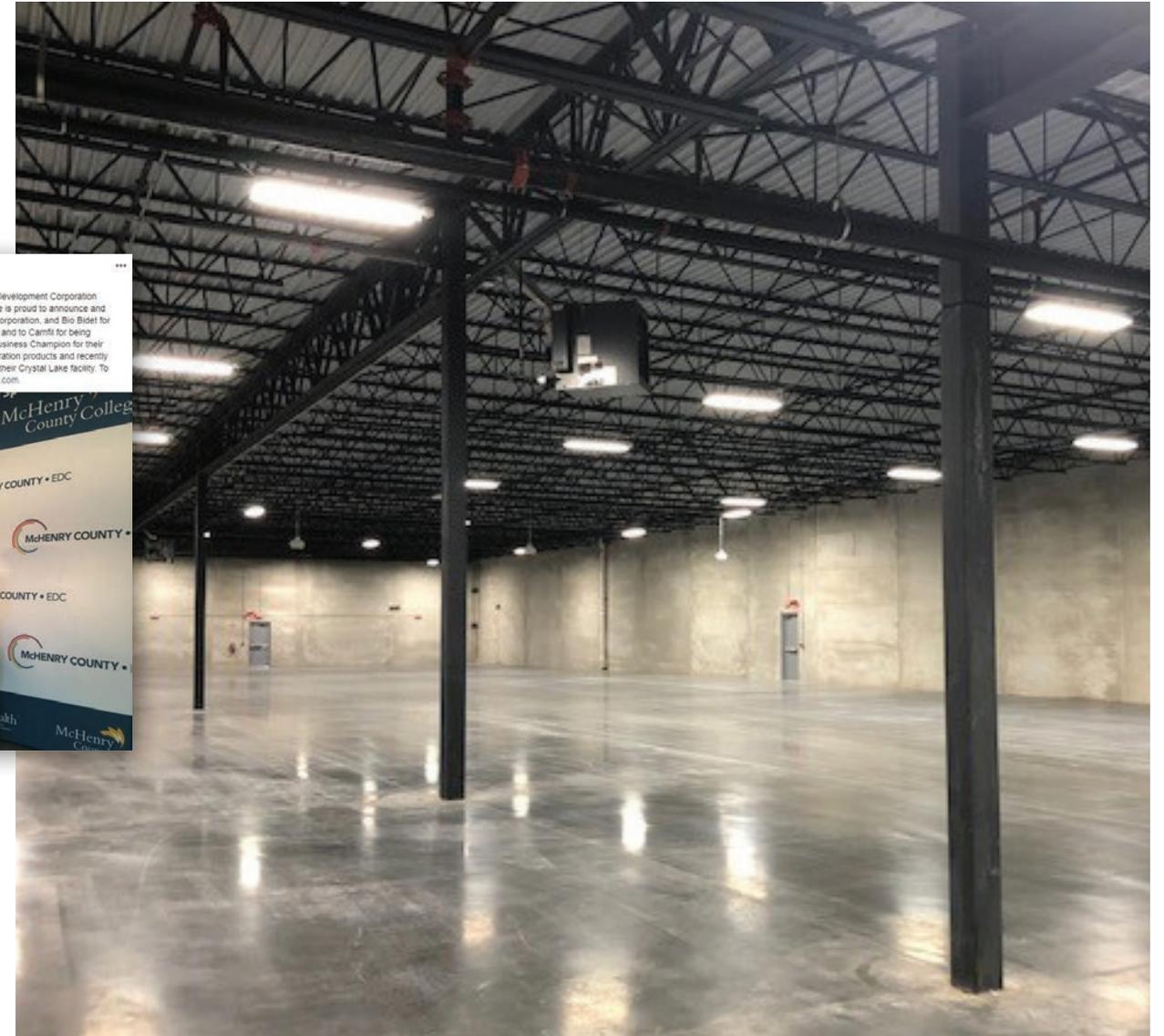
Manufacturing kicked off in May 2019, and equipment continues to be added. Camfil increased its Crystal Lake staff by 22 full-time employees, and that figure is expected to reach roughly 150 within a 5-year period.

The facility also completed a total renovation of the current 110,000 SF facility. This renovation consisted of a new roof over the 10,000 SF office space, plus new flooring, paint, doors and security system. The remaining 100,000 SF area, consisting of production and a warehouse, was also renovated.

The facility has seen a much better awareness of safety issues. It experienced one minor incident in 2019 in the midst of the extensive expansion and renovation.

All in all, employee morale is high at the facility. The facility had a ground-breaking ceremony and plant tour for customers to spread the news. In recognition of Camfil's

efforts, the facility received the 2019 McHenry County Business Champion award in its division. This award recognizes businesses that have made a positive impact on the local county's economy and are exceptional primary sector employers.



# CamfilCairing - How we communicate about sustainability internally

CamfilCairing is the framework and name of our internal programme that integrates sustainability and corporate citizenship in every aspect of our business strategy. Organized and managed at Group level, the CamfilCairing Code gives each local company freedom to implement policies and recommendations according to the economic, environmental and social contexts of their local operations.

During one week each year, we celebrate and put a special focus on our sustainability efforts. This week is called CamfilCairing week.

The week is very much appreciated by our employees all around the world and the key to success is the network of committed employees who engage in activities such as blood drives, charities and health initiatives. We also encourage everybody to share their stories in the CamfilCairing group on Camfil's intranet.



*We started the year 2020 with a bike convoy as part of building up the team spirits among our operation team (Production, Maintenance, QA and Logistics) and at the same time promoting Camfil as part of sustainability efforts. The team cleaned up the beach together and had a great team spirit on making the effort fruitful. Safety of the team members is the biggest priority and the team leaders (Zainal - MWS and Makhyuddin - Hepa) have done a great job on ensuring the safety of the members. Bravo guys.*



# 3 GOOD HEALTH AND WELL-BEING



SDG 3 calls for actions to address determinants of health such as air pollution.

Camfil's products and entire line of business revolve around helping our customers ensure healthy lives and promoting well-being for all ages. We do this by producing the highest efficiency air filters that remove harmful particles and contaminants in ventilated air and by providing air-pollution control systems that collect dust, mist and fumes for safer work environments. Whether for residential, commercial or industrial use, our products protect people, equipment, processes and the air we all breathe.



# Human rights

## Respecting human rights and our Code of Conduct

At Camfil, we take human rights issues seriously. We are a member of the UN Global Compact and support and comply with the Compact's ten principles, including human rights. The Compact emphasizes that companies should not merely comply with minimum human rights requirements. They should go beyond what is legislated to make positive contributions, by creating diverse workplaces, investing in communities, and engaging employees and society to promote collective action.

We respect all internationally proclaimed human rights as reflected in our Code of Conduct, which covers important topics like forced labour, child labour, freedom of association, working conditions and elimination of discrimination. Externally, Camfil's suppliers are also required to follow this Code in their relations with Camfil. We also believe strongly in our area of expertise – clean air solutions – and believe that clean air should be a human right. Therefore, we use our knowledge, expertise and resources to create awareness and educate people on the topic.

# An equal opportunity employer

We embrace diversity and we value the unique contributions each employee brings to the workplace. Camfil is convinced that striving for diversity and equal opportunities help building a more profitable, effective and attractive company. A workforce with a multitude of backgrounds and experiences is more innovative and willing to adapt to new input, different views and work approaches, providing the business with many tangible advantages.

Engaging positively with diversity is an inevitable part of ensuring equal opportunities and it contributes to what we want to achieve, how we want to achieve it, and is in line with our core values.

**"EQUAL OPPORTUNITY AND DIVERSITY ARE CRUCIAL FOR THE EMPOWERMENT OF OUR PEOPLE AND SUCCESS OF OUR BUSINESS."**

**TARGET/KPI:** All major Camfil production companies should be certified as a minimum at Level 1 of the Gender Equality European & International Standard (GEEIS) by the end of 2022.

## **CAMFIL AWARDED INTERNATIONAL GEEIS TROPHY FOR EQUALITY AND DIVERSITY**

GEEIS is an internationally recognised label for companies that demonstrate a strong, successful commitment to achieving gender equality in the workplace. Currently, nine Camfil companies are certified to GEEIS. GEEIS assesses companies from three broad dimensions: management tools, HR and managerial practices, and the global impact of European and international policies.

In September, Camfil was awarded the newly instituted GEEIS-SDG trophy for gender equality and diversity from the Arborus Fund. The fund is the leading provider of funding support for gender equality in the workplace in Europe and worldwide.

The trophy, presented to Camfil at the United Nations Headquarters in New York, recognizes Camfil's actions



In the picture from the left: Serge Christiane Minister of the EU delegation in UN, Cristina Lunghi Founder of Arbours, Agnes Genevois, Eva Bergenheim Holmberg and Nyanyui Silidin (Camfil).

to promote workplace equality. The award positions gender equality as a central pillar that supports all sustainable development efforts. The jury consisted of representatives from Arborus, UN Global Compact, UN Woman, UNESCO and UNDP.

The main Camfil initiative awarded the GEEIS-SDG trophy was the "Camfilles Project", which promotes equal opportunities for school children in France by providing internships at the company. The project was also extended to support girls' education at the Diebougou orphanage in Burkina Faso.

## New educational campaign PM1: People Matter 1st

The health effects of breathing bad air, especially in the most polluted cities of the world, are widely known. Air pollution is now estimated to be responsible for several million premature deaths each year. It is also considered to be one of the highest risk factors for death globally and a leading environmental risk factor for disease.

So, almost everyone knows that air pollution is bad for human health. But not all air pollutants are created equal. New research indicates that the tiniest particles in the air are the most dangerous. These ultrafine particles, called Particulate Matter 1 (PM1), are 1 micrometre or smaller in diameter and take the form of dust, combustion particles, bacteria and viruses. When inhaled, they travel to the deepest area of the lungs and then enter the bloodstream, damage the inner walls of arteries, penetrate tissue in the cardiovascular system and potentially spread to organs including brain.

“People Matter 1st” is an educational campaign that helps people to understand the importance of PM1 particles and their health effects. We provide articles, videos and other forms of expert advice to raise awareness of the effects and to propose solutions. Solution examples include our air filters Opakfil ES, Hi-Flo XLT7 and Hi-Flo M7, which protect the indoor environment, products, production processes, and, critically, human health.



**BENEFITS OF USING HIGH EFFICIENCY AIR FILTERS IN SCHOOLS**

REDUCED ABSENTEEISM	IMPROVED WORK PERFORMANCE	LOWER ANNUAL ENERGY COSTS	AIR THAT FEELS EASY TO BREATHE	PROTECT STUDENTS	INCREASED TRAINING PERFORMANCE

## CAMPAIR – Breaking the barriers in China

Every two years, Camfil conducts a global employee survey called CAMPAIR. The survey gives each employee a unique opportunity to voice their opinion. At Camfil in China, the CAMPAIR survey revealed a need to improve the effectiveness of our communication and engagement with employees.

In an effort to break traditional organisational barriers, a quarterly “Skip Level Meeting Programme” was introduced in Q2 2019. Representatives from management and employees are invited to an informal meeting facilitated by HR where employees are encouraged to freely raise questions and requests. To ensure a good mix of employee representation, 5-10% of our employees regardless of function or level are randomly invited to be a representative at each session. They are given sufficient time to collect information and requests from their peers.

At the meetings, some topics are addressed and resolved immediately while others require further investigation, resources or approval. The content of the meeting, including resolved or answered topics, action plan, timeline, measures, decisions

and deadlines, are then openly published for all employees.

To date, we have noted that most questions focus on employee benefits and welfare. As we progress, we expect and encourage more discussions around work processes, EHS, quality improvements and the like. By engaging our employees through alternative channels, we aim to create a positive impact that encourages greater camaraderie among our employees and builds a high-performing team.



# 8 DECENT WORK AND ECONOMIC GROWTH



SDG 8 calls for promoting safe, secure working environments to create decent work opportunities.

Camfil provides satisfactory working conditions for nearly 4,800 employees at offices and manufacturing sites around the world. In addition to our Code of Business Ethics, Code of Conduct, and Health & Safety Handbook, which provide governance on these particular issues, we have strong human-resource management practices at our local workplaces and local employee healthcare programmes. Our global workforce helps us steadily grow sales and support economic growth in more than 30 countries. We conduct due diligence and proactively integrate our strong culture around work ethics in all companies that Camfil acquires.



# Anti-corruption and business ethics

## Whistleblowing

Camfil believes it is always critical to ensure compliance with applicable laws as well as enhance transparency and accountability across the organisation. Our CamfilCaring Code contains a Code of Business Ethics that sets the standards of conduct expected in the management of our business. All employees are expected to carry out their duties in a way that is consistent with this Code.

To support our efforts in identifying potential ethical and fraudulent violations, Camfil provides a whistleblowing service to all employees for reporting their concerns confidentially. The service is encrypted and password protected. Using the system is voluntary.

Employees can report knowledge or suspicion of activities that are illegal or are not aligned with Camfil's moral and ethical values as stated in the Code of Business Ethics or Code of Conduct. This service is outsourced to a third party, so any employee can report anonymously without the fear of any negative consequences.



THE WHISTLEBLOWING SERVICE IS AVAILABLE IN 13 LANGUAGES.

# Trade compliance

It is the global policy of all Camfil business units to fully comply with, at a minimum, all export control and trade sanction laws and regulations of the European Union, the United States, the United Nations and other local laws and regulations that govern the sale, supply and export of Camfil products, services and technical data. Camfil's Owner's Directive is clear on this matter and requires Camfil to step away from a business deal if there is a risk of non-alignment with our moral and ethical values.

To ensure the adequacy and effectiveness of policies and procedures worldwide, Camfil has a Group Trade Compliance Manager. Trade compliance procedures are in place for export licensing, screening of third parties and vessels, U.S. export controls and trade sanctions, product classifications, mandatory contract clauses, country-specific requirements, end user certificates and red flag situations.

In 2019, we assigned 18 regional trade compliance officers who were trained in our trade compliance policy. A total of 92 people out of 104 identified key individuals were trained in trade compliance. At the senior management meeting in June, 150 of Camfil's senior management participated in a seminar about anti-corruption and trade sanction laws to raise awareness of this important topic.

**TARGET/KPI:** 100% of senior management and sales managers working with listed countries should have participated in trade compliance training.

# Data security and privacy

As digitalisation brings opportunities to businesses, it also poses challenges around data security and privacy. The risk of cybercrime and data security breaches has increased tremendously in recent years, and as a global company Camfil must remain vigilant and stay ahead of potential threats, whether internal or external.

Camfil takes active prevention and protection steps to minimise risks. Just like in other areas of our business, we engage all employees around the way we work on security issues and align our efforts. Camfil has an IT Security Policy in place as part of our broader approach to ethics and compliance. With regards to data privacy, the EU's General Data Protection Regulation (GDPR) strengthens citizens' right to control their personal data by setting requirements for personal data processing. Through our Data Privacy Policy, Camfil aims to fully comply with the GDPR to help ensure this right.

## HOW WE MAINTAIN HIGH STANDARDS OF DATA PROTECTION AND PRIVACY:

- Continuous information security training required of all employees
- Periodic security reviews conducted by each business unit
- Annual risk assessment conducted by each business unit
- All systems owners are responsible for security requirements and analysis
- GDPR-compliant data privacy policy updated and available to website visitors
- Updated policy for 2019, approved by Camfil's CEO, was rolled out in June

# Building for the future

During 2019, Camfil made significant investments in several areas to be prepared for continued future growth:

- The establishment of the Molecular Contamination Control Business Area is now close to completion, including design and sourcing centers.
- The Crystal Lake facility in the United States was extended to allow for further growth of premium products in the North American market.
- To support the Group's potential in Air Pollution Control business, significant investments were made in people and assets during the year.
- Camfil signed a land-lease agreement in Taicang, China, for construction of a new plant serving the Chinese and Asian markets.



# Financial (5-year summary)

	2019	2018	2017	2016	2015
<b>Income statement</b>					
Net sales	8 676	8 298	7 294	6 722	6 250
Operating profit	1 003	1 114	896	775	657
Profit after net finance costs	928	1 044	829	725	558
Tax	-235	-239	-258	-205	-189
<b>Profit for the year</b>	<b>693</b>	<b>805</b>	<b>572</b>	<b>521</b>	<b>369</b>
<b>Balance sheet</b>					
Intangible assets	1 621	1 555	1 432	1 416	1 260
Property, plant and equipment	1 666	1 100	980	963	914
Financial assets	117	109	109	128	85
Inventories	912	804	930	1 056	827
Cash and cash equivalents	840	598	615	316	453
Other current assets	1 656	1 803	1 428	1 352	1 228
<b>Assets</b>	<b>6 812</b>	<b>5 968</b>	<b>5 496</b>	<b>5 231</b>	<b>4 767</b>
Equity	3 157	2 577	1 919	1 462	2 162
Interest-bearing liabilities	2 170	1 868	1 934	2 084	1 229
Interest-free liabilities	1 485	1 524	1 643	1 684	1 376
<b>Equity and liabilities</b>	<b>6 812</b>	<b>5 968</b>	<b>5 496</b>	<b>5 231</b>	<b>4 767</b>

	2019	2018	2017	2016	2015
<b>Cash flows</b>					
Cash flow from operating activities	1 119	713	849	684	712
Cash flow from investing activities	-387	-306	-281	-262	-190
Cash flow from financing activities	-509	-455	-260	-571	-728
<b>Change to Cash flows or the year</b>	<b>223</b>	<b>-47</b>	<b>308</b>	<b>-149</b>	<b>-206</b>
<b>Key ratios</b>					
Operating margin, EBIT	11.6%	13.4%	12.3%	11.5%	10.5%
Profit margin before tax, EBT	10.7%	12.6%	11.4%	10.8%	8.9%
Equity ratio	46%	43%	35%	28%	45%
Interest-bearing net liabilities	1 283	1 217	1 275	1 740	760
Net debt-equity ratio (gearing ratio)	41%	47%	66%	119%	35%
Return on capital employed	27.9%	35.8%	33.6%	31.7%	25.3%
Return on equity	24.2%	35.8%	33.8%	28.7%	18.4%
Investments	367	231	182	163	129
Employees (average for the year)	4 537	4 509	4 225	4 076	3 811

- **EBIT margin (operating margin)**

Earnings before financial items, appropriations and taxes, as a percentage of sales.

- **EBT margin (profit margin before tax)**

Earnings before tax, as a percentage of sales.

- **Equity ratio**

Equity as a percentage of total assets.

- **Interest-bearing net debt**

Interest-bearing liabilities less cash and cash equivalents and other interest-bearing receivables, such as derivative financial instruments.

- **Debt-equity ratio (gearing ratio)**

Interest-bearing net liabilities as a percentage of equity.

- **Capital employed**

Total assets less cash and cash equivalents, non-interest-bearing liabilities including non-interest-bearing provisions. Average capital employed is calculated as capital employed at January 1 plus capital employed at December 31 divided by two.

- **Return on capital employed**

Profit after financial items plus financial expenses as a percentage of average capital employed.

- **Return on equity**

Profit after tax as a percentage of average equity. Average equity is calculated as equity at January 1 plus equity at December 31 divided by two.

- **Investments**

Investments in intangible assets and property, plant and equipment.

# Camfil Sustainability Report 2019

## CAMFIL – A GLOBAL LEADER IN AIR FILTERS AND CLEAN AIR SOLUTIONS.

For more than half a century, Camfil has been helping people breathe cleaner air. As a leading manufacturer of premium clean air solutions, we provide commercial and industrial systems for air filtration and air pollution control that improve worker and equipment productivity, minimize energy use, and benefit human health and the environment.

We firmly believe that the best solutions for our customers are the best solutions for our planet, too. That's why every step of the way – from design to delivery and across the product life cycle – we consider the impact of what we do on people and on the world

around us. Through a fresh approach to problem-solving, innovative design, precise process control and a strong customer focus we aim to conserve more, use less and find better ways – so we can all breathe easier.

The Camfil Group is headquartered in Stockholm, Sweden, and has 30 manufacturing sites, six R&D centres, local sales offices in 30 countries, and about 4 800 employees and growing. We proudly serve and support customers in a wide variety of industries and in communities across the world. To discover how Camfil can help you to protect people, processes and the environment, visit us at [↓](#)

[www.camfil.com](http://www.camfil.com)



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