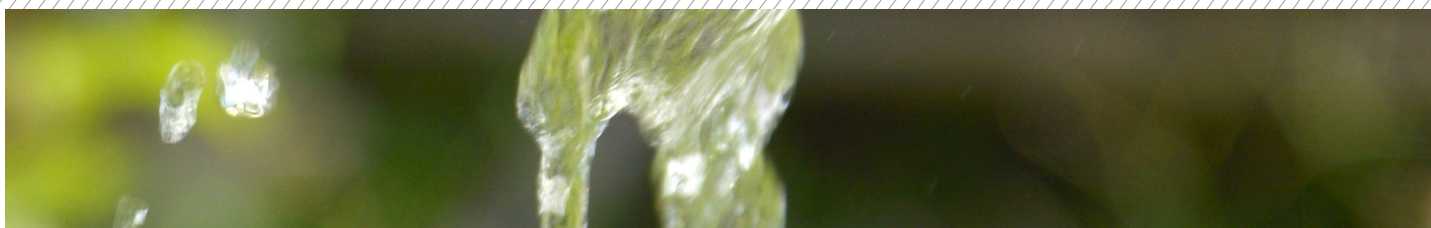


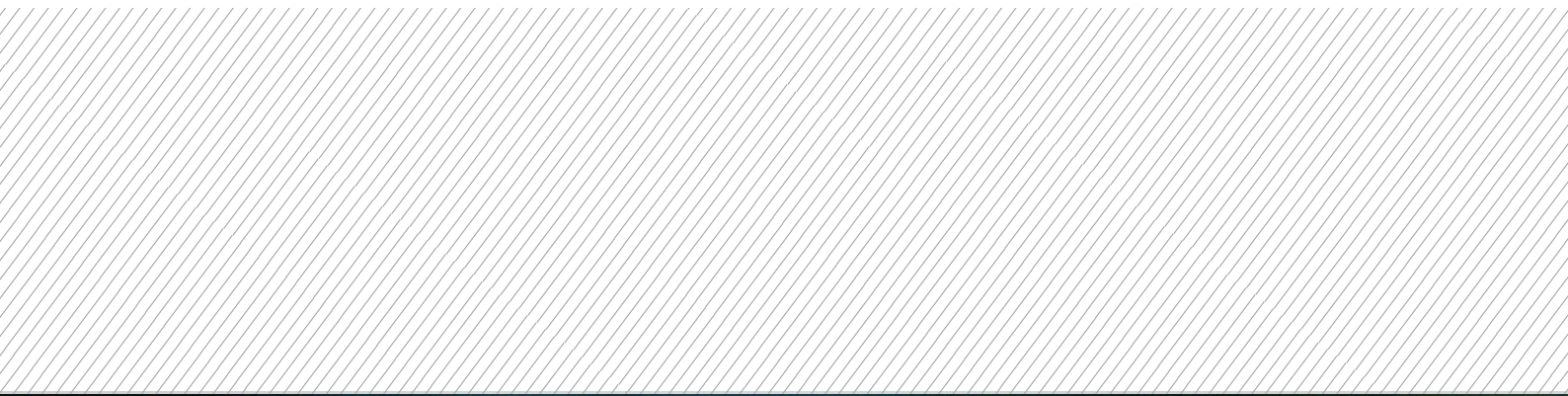


**AVK**  
**SUSTAINABILITY**  
**REPORT 2018/19**

Expect... **AVR**









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# INTRODUCTION

## WELCOME TO AVK'S SUSTAINABILITY REPORT 2018/19



Sustainability and a focus on costs are deeply embedded in our DNA and have always impacted the way we conduct our business. We have always had a focus on recycling the by-products of our production, rather than using new material; reuse of metals and other types of production waste have formed part of our business model since the beginning back in 1970, simply because we could see the value of this waste material.

Our products have always been part of vital infrastructure, contributing to the welfare of people, such as a safe and steady water supply, collection and treatment of wastewater from society, distribution of natural gas for heating, cooking and production, and our products are part of systems that protect people and property against fire. Since the introduction of the 17 Sustainable Development Goals of the United Nations, our products play an even larger role, especially in relation to goal no. 6 which is concerned with access to clean water and proper sanitation for all people on the planet.

We are the backbone of proper and sustainable water infrastructure.

Niels Aage Kjær

Owner and CEO





# OUR MISSION IS TO BRING OUR CUSTOMERS THE **BEST AND SAFEST** PRODUCTS

**WE WANT TO BE THE TRUSTED PARTNER OF OUR CUSTOMERS, PROTECTING THEIR INTERESTS.**

**WE SAY WHAT WE DO AND WE DO WHAT WE SAY.**

**WE ARE DEDICATED TO OUR WORK AND FOCUS ON PROVIDING THE BEST SERVICE AT THE HIGHEST LEVEL, ALWAYS SURPASSING OUR COMPETITION IN THE MARKET.**

## **WE ARE ONE AVK**

The Expect... AVK-commitment is true for all employees and partners. The best solutions are the results of good ideas and contributions from everybody. Plurality makes our company stronger, contributing to the best result for our customers.

We expect our employees to have a solid working knowledge of the company beyond their core area of responsibility. Ongoing communication is key to our success.

## **WE ARE INNOVATORS**

Continuous innovation gives our customers the best of AVK. We are proud of our history and of our development which has contributed to innovative products across our company, a strong foundation for our success.

The AVK Group is family-owned and has its headquarters in Skovby/Galten near Aarhus, Denmark. The group consists of more than 100 production and sales companies world-wide and employs +4,300 people.

AVK is the global market leader within the valve industry.

AVK Water produces and sells valves and fire hydrants with a focus on four segments: Water supply, wastewater treatment, distribution of natural gas and fire protection. This makes our products vital for the infrastructure of society. Within water supply and collection of wastewater as well as the distribution of natural gas, our products are climate and environmentally friendly through functionality, high quality and long life span.

AVK Industrial produces and sells a wide range of valves to industrial customers as well as SMART meters for the natural gas network. We also supply valves for exhaust gas scrubbers in the shipping industry, reducing significantly CO<sub>2</sub> and NO<sub>x</sub> emission.

AVK Advanced Manufacturing makes components for wind turbines and plastic products made entirely of recycled plastics. We also make rubber components for both our range of valves and for the food industry as well as for other purposes where functionality and long life time are key.

We make products that are climate and environmentally friendly as they contribute to clean water and a reduction of loss of wastewater into nature. A reduction of water loss in the distribution network reduces the energy consumption required for water pumping. We achieve this by setting high quality requirements of components and surface treatment of our products to avoid a negative impact on the water and the surroundings. AVK supports SDG no. 6 of the UN by entering projects that aim to provide clean water to the world population and collect wastewater, and AVK also supports SDG no. 13 on climate actions.

When our products are eventually due for disposal we aim to reuse as much as possible to allow for material to enter a new life cycle.



# BUSINESS MODEL

RESOU

PRODU

We source and pr  
support our produc  
global

**R&D:**

We have an ongoing focus on sustainable and energy-friendly solutions of high quality

**EMPLOYEES:**

We employ competent people that support our business on a foundation of long-term relations, diversity and employee development

ACTIVITIES



AVK WATER



AVK INDUSTRIAL



AVK ADVANCED  
MANUFACTURING



**SOCIETY:**

Our products and solutions support sustainability and the global challenge of reducing water loss and handling wastewater

**CUSTOMERS:**

We optimise customer solutions to create the highest returns of the invested resources

CREATION



# SOURCES

## CTION:

roduce locally and  
ction by a local and  
set-up

## RESPONSIBILITY:

Our focus is on sustainability,  
responsible sourcing and recycling of  
material

## STAKEHOLDER COMMITMENT

The relationship to our stakeholders is  
based on trust and long-term relations  
to generate value for all



## ACTIVITIES

Turnover: DKK 5,806 million

No. of employees: 4365

Companies: 103

Presence in 36 countries

## EMPLOYEES:

We focus on motivating our employees  
by offering an attractive and safe  
workplace

## SHAREHOLDER VALUE:

We create value for our owners, but  
reinvestment and active ownership is a  
priority

# OF VALUE

AVK is a global company operating world-wide and as such must take different circumstances in different countries in account and the risks that this entails. In all the countries where AVK has a presence, it is fundamental to act responsibly towards employees, the environment and the surrounding society. The Group keeps a close watch on all business units of the Group, and through regular visits ensures that the Group complies with the defined human rights principles and criteria.





# SUSTAINABLE DEVELOPMENT GOALS





# THE WORLD FACES HUGE CHALLENGES TOWARDS THE GREEN TRANSITIONS AND THE FULFILMENT OF THE 17 SUSTAINABLE DEVELOPMENT GOALS AS ESTABLISHED IN 2015 BY THE UNITED NATIONS GENERAL ASSEMBLY WITH THE 169 TARGETS **THAT ALL AIM AT MAKING THE WORLD A BETTER PLACE TO LIVE.**

For AVK, SDG no. 6 “clean water and sanitation for all people on Earth” is crucial. Without water we cannot have life. It is that simple. Water is the basis for all life on this planet. But water is also an important part of the other SDG’s.



## INITIATIVES SUPPORTING SDG NO. 6

AVK has been approved by the Climate Foundation of the Danish government which aims to extend Danish climate technology and promote Danish climate investments in developing countries and growth markets. The World Water Day takes place every year on March 22 to focus on the importance of drinking water and the sustainable administration of freshwater resources. To promote the World Water Day, AVK invites customers and business partners to participate in a competition which focuses not only on the World Water Day but also on the UN SDG no. 6, “clean water and sanitation for all”.

Every year we arrange a competition for our customers all over the world and invites them to send us cases where a project has positively influenced water, sanitation or environment. In 2018 the winner was this case from Turkey:

# THE CITY OF MARDIN LIES IN THE HEART OF THE MESOPOTAMIAN PLATE, WHICH HAS A HISTORY GOING BACK MORE THAN 12,000 YEARS, MORE SPECIFICALLY TO THE NEOLITHIC AGE. THE CITY HAS A VERY INTERESTING ARCHITECTURAL STYLE; THE HOUSES IN THE CITY CENTRE ARE CARVED IN THE MOUNTAIN SIDES, AND TRANSPORTATION IN THIS PART OF THE CITY IS ALLOWED ONLY BY DONKEY AND CART.

By Mr. Omer Ozkan, plant project director

## ANCIENT SETTINGS WITH MODERN PERSPECTIVES

For the past 1,500 years, Mardin has nourished residents of Armenian, Kurdish, Jewish, Arabic and Turkish origin. Being a main stop on the Silk Road, an ancient network of trade routes, the city is open to many cultures. It hosts temples and buildings from the Babylon, Persian, Byzantine and Ottoman era, and today serves as an open air museum. Mardin is famous for its silver workmanship and temples, but the use of wastewater management was not prioritised until recently. Before this, the wastewater of the city was simply discharged into the Zergan river. With the help of an European Union led IPA fund (the Instrument for the Pre-Accession Assistance), the Mardin Municipality then invested in our two state-of-the-art wastewater treatment plants for the city.

## 48 KILOMETRES OF BENEFITS

The construction of two wastewater treatment plants, and of 48 kilometres of wastewater transmission lines, were then initiated with Mass Treatment Systems as contractor. The plants will serve 613,000 people, and will enable the reuse of 46,5 million cubic metres of water in irrigation.

These modern plants are serving multiple purposes at the same time. They are designed with integrated electricity generation units using methane to reduce carbon emission, and the treated water will be released through the Zergan river to recover the riverbed's natural habitat.

Mardin will benefit from the wastewater management investment in four remarkable ways:

- The city's wastewater is now treated, and the contamination of the Mesopotamian plate stopped.
- The treated water will be used for irrigation and agricultural development of cotton fields in the plain.
- Resulting sludge from the treatment process will then be used as fertiliser and fuel for cement plants.
- The current odour problem related to the contamination in the region will be minimised.

Additionally, working towards these benefits will create new job opportunities in the area, help reduce migration to metropolitan cities, and will promote development in the city of Mardin.

## AVK AT OUR ASSISTANCE

In every section of both wastewater treatment plants, AVK were our preferred supplier of valves. The valve scope is diverse, ranging from gate valves for wastewater, to actuator mounted butterfly valves in process control, and high-temperature rated butterfly valves for aeration lines. For both plants, the contractor's obligation has been further extended to include operation of the plants for the next five years, and Mass Treatment Systems were happy to choose AVK due to the wastewater approvals, durability and long lifetime of the products.





Saving the local river from continuous contamination and reusing treated water and its by-products, all while securing a sustainable future for Mardin and its residents, are the humble tasks of our new and innovative wastewater treatment plants.





# EDUCATION

**AVK WANTS TO FOCUS ON THE IMPACT OF WATER ON SOCIETY AND ON THE WATER INDUSTRY IN GENERAL. WE WANT TO MAKE YOUNG PEOPLE AWARE OF AN INDUSTRY THAT CAN CHANGE THE LIVING CONDITIONS AND QUALITY OF LIFE OF PEOPLE IN WATER STRESSED AREAS.**



This made AVK initiate a water summer school in cooperation with the University of Aarhus and leading Danish companies and utility companies. This water summer school, the “Advanced Water Cycle Management Course” offers an intensive course on sustainable water infrastructure during which, groups of students are to solve some of the challenges in this area.

The course is approved by the Danish Ministry of Education and equals 5 ECTS points. The first course was held in August 2019 with the participation of 45 students from 13 different countries.

“By 2030 global emission will have risen 50%, corresponding to an increase in water consumption of 85%. In Denmark we have found way of using our resources effectively and carefully, and this knowledge should be passed on to the students to enable them to solve the water challenges of today and tomorrow”, AVK Global Brand Manager Michael Ramlau-Hansen says.

During the course, the students visited the participating companies to achieve a better understanding of the quality products that form part of the water infrastructure through society.





# RESPONSIBILITY

## SOCIAL RESPONSIBILITY

AVK has several company policies that establish how our companies must act to live up to our social responsibilities and the clearly defined principles and instructions for the handling of human rights. The Group policies are available to all companies and employees in the Group Quality and Environmental Management System (QEMS). The implemented policies make it clear that AVK is a trustworthy and ethically responsible business partner for customer, suppliers and other stakeholders.

## AVK POLICY

In order to formalise and support the principles of social responsibility that we live by, AVK has formulated business policies for safety, environment, ethics and quality. These policies will be available in our Management System (QHSE). AVK recognises a responsibility for the climate and on an ongoing basis, the Group attempts to minimise the environmental effects of the Group's activities on the surroundings. The environmental policy of AVK is based on environmentally responsible running of operations and forms a natural part of the Group's objectives for the consumption of energy and water.



## AREAS OF PRIORITY AND COLLECTION OF DATA

AVK has been part of delegation visits to countries that have been appointed strategic partner countries by the Danish government and to countries of particular export interest to Denmark. AVK has also received delegation visits from other countries with the objective of learning about sustainable solutions and the green transition. In these cases, AVK has made an active effort to solve current problems. It is therefore only appropriate that we look nearer to home in our own organisation to call attention to the way we affect our planet and to the green transition.

Because of this we have defined certain areas of focus that we will prioritise by collecting data and formulating objectives for improvement.

## CONSUMPTION OF ENERGY

The AVK Group has formulated very ambitious objectives for their production companies for the consumption of energy and water. Our main risk is if we do not focus on lowering the consumption of energy in our production, including the consumption of heat, electricity and water. We must also pay attention to the handling of waste and the use of the environmentally friendliest material. The consequence could be an impact on the local environment. A few of the AVK production units are now supplied with renewable energy.

On an ongoing basis, we measure our consumption of energy (measured in KWh) and water (measured in m<sup>3</sup>). We have set targets for reducing our consumption of electricity and water as well as other kinds of energy, and we have formulated targets for the share of sustainable energy.

Until the end of the last Financial Year 2017/2018 we measured the consumption of water and energy at group level in 20 AVK production companies, see table 1. In these companies the consumption of electricity was reduced by 6.56%, water was reduced by 5.25% and the usage of gas was increased by 2.47%.

These results reflect the effect of our locally implemented improvements. It is very comforting that despite increasing activity and volume of trade, we see reduced levels of electricity and water used in several of the companies (and in total). We will maintain our focus on reducing water and energy levels in the Group's companies.

Until now we collected data of the energy consumption from more than 20 AVK companies but we have expanded our data collection and by the end of the Financial Year 2018/2019 we had collected data of energy consumption from all AVK companies, see table 2.

Going forward, energy data are collected biannually from each AVK company.

Table 1: The development in energy consumption – index numbers

	2017/2018	2018/2019
Water (m <sup>3</sup> )	100	94.75
Heating (MWh)	100	116.84
Heating (Gas – m <sup>3</sup> )	100	102.47
Electricity (KWh)	100	93.44

Table 2: Total energy consumption

	2018/2019
Water (m <sup>3</sup> )	139,808
Heating (District – MWh)	18,138
Heating (Gas – m <sup>3</sup> )	5,799,341
Electricity (KWh)	73,443,913

## RESULT AND NEXT YEAR

Our main goal is to maintain the level of water and energy despite increased production and trade activity.

The result of all data input will have full effect from the accounts of 2019/2020. Once we have the complete data set, we can measure our development towards a greener production.



# WASTE HANDLING



We carefully monitor waste from our production companies and use an internal reporting system to understand the kinds of waste we generate. As part of our environment management system (ISO 14001) we carry out waste projects locally on our production sites.

To reduce our environmental impact, we will be applying principles of circular economy. We consider resource efficiency and ultimately zero waste as a means for promoting innovation, reducing costs and minimising environmental impact across our value chain. This is in line with the UN SDG no. 12 of sustainable consumption and production pattern.

## RESULT AND NEXT YEAR

Our objective is to have zero waste for landfill. A full overview of “waste for landfill” will be identified during 2019/2020.

## ENVIRONMENTAL PRODUCT REQUIREMENTS

Already during product development, AVK considers the environmental impact. We ensure compliance with EU directives and other environmental legislation, including REACH, RoHS and WEEE. Through this process, AVK guarantees that the products we send into the world, comply with local legislation.

## REACH COMPLIANCE

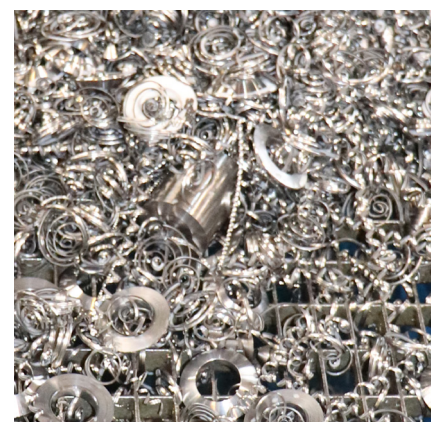
In 2007 the European Union adopted a simple regulation for the handling of chemicals, called Registration, Evaluation and

Authorisation and Restriction of Chemicals (REACH), the purpose of which is to guarantee a safe handling of chemicals in Europe, while also improving innovation and enhancing the competitiveness of the EU chemical industry. REACH requires that manufacturers and importers of chemicals register danger, usage and risk data for all chemicals manufactured or imported into the EU if the quantity exceeds one tonne p.a.

AVK complies with REACH. We pay attention to all new products and/or raw material that may be subject to REACH and ensure compliance.

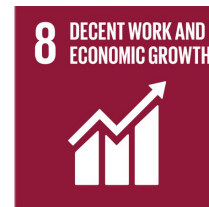
## ROHS/WEEE

AVK handles a few products that contain electronics and therefore we ensure that used electrical equipment complies with RoHS\* and WEEE\*\*.



\*The RoHS directive limits the number of certain hazardous substances in electrical and electronic products.

\*\*WEEE (Waste Electric and Electronic Equipment). The WEEE directive dictates that all EU member states introduce legislation on the collection, treatment and recycling of waste from electrical equipment.



The Group complies with the UN Universal Declaration of Human Rights, including equal rights for all, irrespective of sex, religion, political views or other distinctions – and the prohibition of forced labour. The obligation to comply with the Human Rights is part of the clearly defined principles of the Group and an important part of the set of values of the management.

AVK dissociates themselves from all kinds of corruption, including blackmail and bribery. All General Managers of the Group have signed a Compliance Manual as part of their contract, with requirements to adhere to national and international laws against corruption and bribery. Our assessment is that the greatest risk is that we operate globally, i.e. also in countries where corruption and bribery are more likely to occur. We are not aware of any cases of corruption or bribery in AVK in 2018/2019, see also the section “Supplier – code of conduct”.

Top management positions in AVK are filled using the merit principle. Due to tradition, requirements of specific qualifications and the business area of AVK within industry and technical products, the male/female ratio is very skewed, both on management level and among employees in general. It is an objective to increase the number of females in management and in a long-term perspective reach a quota of 20%. Management takes this into account when employing and promoting managers in the Group, though professional and personal qualifications hold more weight. No specific short-term objectives have been set as it is not considered viable, but the gender distribution will be monitored on an on-going basis and specific initiatives will be made if the development is not satisfactory.

The share of women on the board of AVK Holding is 20% corresponding to the Group’s objective while currently there are no women in top management.

## SAFETY

AVK employs more than 4,300 men and women worldwide. We have a diverse group of dedicated people with needs and ideas that must always be respected. We provide a challenging and rewarding working environment and wherever possible, we enable new experiences, personal development and growth to our employees.

Health and safety is very important to AVK. Irrespective of country or location, we focus on the health and safety of our employees. We keep lowering our target numbers for work-related accidents and work proactively on preventive measures. The result of this is a steady decline in the number of accidents. We also ensure maintenance, inspection and development of the working conditions, equipment and tools that are necessary for the completion of any given business process.

Any work-related accident must be reported to Group Quality who will register and follow up on the cause to reduce the risk of another similar accident. Accidents are defined as such when work-related incidents cause more than one day of absence.

A global initiative for safety was instigated in 2018 with global task forces that include sharing of best practice, education in safe behaviour and a daily focus on the right safety mindset. 75 accidents were reported for the Financial Year 2018/2019, a reduction of 33% compared to the year before, see table 3.

Table 3: Number of accidents

	2017/2018	2018/2019	Development
Accidents (LTI)	112	75	-33%

## RESULT AND NEXT YEAR

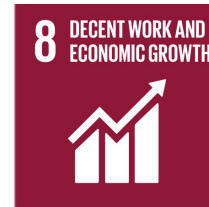
We maintain our ultimate target of zero accidents in 2019/2020. In the coming year we will continue our focus on reducing the number of work-related accidents by ensuring that all accidents are reported and that measures are taken to eliminate the causes of these accidents. To avoid repetition, a follow-up on work-related accidents and corrective actions will be made on all board meetings in the Operating

Companies. For further improvement within the field of Health and Safety, safety campaigns will be launched by the management of all companies with a focus on training material to rectify e.g. harmful lifting. Further, e-learning courses will be developed and a daily follow-up on all near-accidents will be executed in connection with LEAN meetings. Also, the global safety task force will host meetings 4-6 times a year with a focus on best practice.



# QUALITY

- HEALTH AND SAFETY
- ENVIRONMENT (QHSE)



AVK was first ISO 9001 certified back in 1990 and since then our management system has been extended with an ISO 14001 and ISO 45001 (OHSAS 18001) in most of our production companies.

The core environmental and ethical programmes (procedures and policies) are stated and integrated in our ISO documentation (QEMS). These programmes are appreciated by all employees in our companies and we require that they are put into practice by our production and sales companies across the world.

We take responsibility for our work and our actions and conduct our business in a socially responsible and ethical way. In 2015, ISO 9001 was implemented in all our production companies and in AVK TECH which handles global product development. Most of our production companies comply with ISO 14001. Our largest production companies comply with the Health and Safety standard OHSAS 18001 (or the recently updated standard ISO 45001).

AVK's work within the environmental field has resulted in an ISO 14001 certification in 21 of the Group's production companies, an

increase of 23% compared to 2017/2018. Further, nine of the Group's companies are OHSAS 18001 certified, the international standard for Health and Safety, which is the same level as in 2017/2018.

AVK continues the trend of certifications for ISO 14001 and OHSAS 18001 (ISO 45001) in the rest of the production companies of the Group. CSR activities will be incorporated into the management systems and daily activities.

# SUPPLIER MANAGEMENT

## SUPPLIER MANAGEMENT AND SUSTAINABILITY

Being a responsible company, AVK recognises the significance of selecting the right suppliers with a focus on the appropriate quality but also on sustainability. Compliance with the Group policies, including the supplier Code of Conduct, is included in the evaluation of external suppliers, and our suppliers must meet the AVK requirements for socially and environmentally responsible behaviour. AVK always strives to comply with human rights, including ensuring that no suppliers use child labour, forced labour or put an unnecessary strain on the environment when making components for AVK. We ensure this through ongoing visits and audits at the suppliers.

Our method in this area is responsible supply chain management. AVK has worked systematically with this area for a few years and will continue to improve this control and follow-up.

We carry out follow-ups with selected suppliers and educate them in the understanding of sustainability and we will continue to carry out supplier audits with a focus on quality/environment and safety. Our assessment is that the most significant risk is if a sub-supplier of AVK does not comply with human rights. In 2018/2019 we carried out 20 supplier audits in China and did not uncover any violations of human rights during these audits.

Next year we will be expanding the extent and receive a full overview of the number of supplier audits of our largest global suppliers.

## SUPPLIER – CODE OF CONDUCT

As part of our work with responsible Supply Chain Management AVK has developed a Supplier Code of Conduct on key areas such as environment and climate, human rights, working standards and anti-corruption, describing the values of AVK to facilitate easy communication with our chosen suppliers. This is also part of all purchase agreements with suppliers and must be accepted in any purchase order.

Compliance audits are carried out on an ongoing basis at our suppliers with a focus on those countries that are considered the most likely to exhibit socially and environmentally irresponsible behaviour. Our supplier code of conduct has been signed by all Chinese suppliers and we will start extending this approval policy to all key suppliers globally.

## FUTURE ACTIVITIES

Based on the data collected, going forward we will biannually publish the “AVK Green Paper” \*\*\* to document the data collected and the fulfilment of the defined objectives that are reviewed annually when the Business Plan of the companies is prepared.

AVK Green Paper will include a status of our progress towards a “Zero Landfill”\*\*\*\* policy. We want to be able to account for our waste handling from both production and administration and have a declared goal that all waste and by-products must be part of a circular economy so we do not contribute to landfill.

At the same time, we will be working on a Cradle-to-Cradle account of our products in order to provide instructions for the correct disposal of our products after use.

On an ongoing basis we follow up on the compliance of each company with global policies, including a specification of each company's future initiatives as an integral part of the Business Plan. Management pays frequent visits to the Group's companies and compliance with the company's CSR policy is part of these visits.

\*\*\* Twice a year we will publish a status report on our work with CSR and sustainability across the entire AVK Group

\*\*\*\* Zero Landfill aims at avoiding waste or material that must be stored in landfill





