

# ENVIRONMENT

## ENVIRONMENTAL RESPONSIBILITY

Environmental issues are of great relevance to both HKScan and its stakeholders. The expectations of stakeholders, as well as increasingly stringent environmental regulations require continuous advances in environmental management. Our Group-wide environmental policy defines harmonized ways of working for the benefit of the environment.

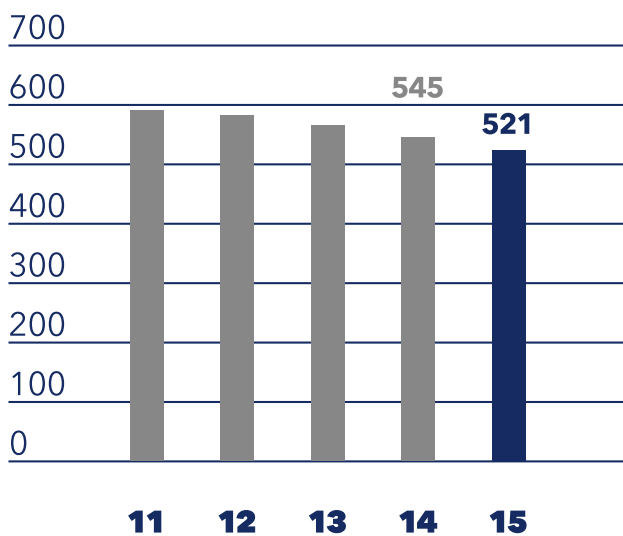
We continually measure our environmental impact and work to decrease it, especially in the areas of energy efficiency and GHG emissions, wastewater, water use, chemical use, and waste management.

### ENERGY EFFICIENCY

HKScan initiated an energy efficiency project in 2015 aiming to decrease its energy usage by 10 per cent from the 2014 level by 2017 indexed to net sales. Examples of our recent concrete actions to support enhanced energy efficiency include the installation of heat pumps, optimization of cooling systems, usage of LED lights, and use of excess heat to heat water. See our [energy efficiency commitment](#).

In 2015, the Group initiated a detailed survey of its energy usage, and action and investment plans have been compiled for each Group site. The two sites in Halmstad, Sweden, apply the ISO 50 0001 energy management system. We have also conducted energy reviews at the Vinderup and Skovsgaard sites in Denmark. In 2015, our energy usage decreased by 2.1 per cent indexed to net sales, and from 2011 to 2015 by 12 per cent in total. This work will continue in 2016 in line with the agreed action and investment plans. Several sites will conduct energy reviews to find more ways of saving energy. Sharing best practices internally in the Group is an important part of this work.

### ENERGY USE GWH



## GREENHOUSE GAS (GHG) EMISSIONS

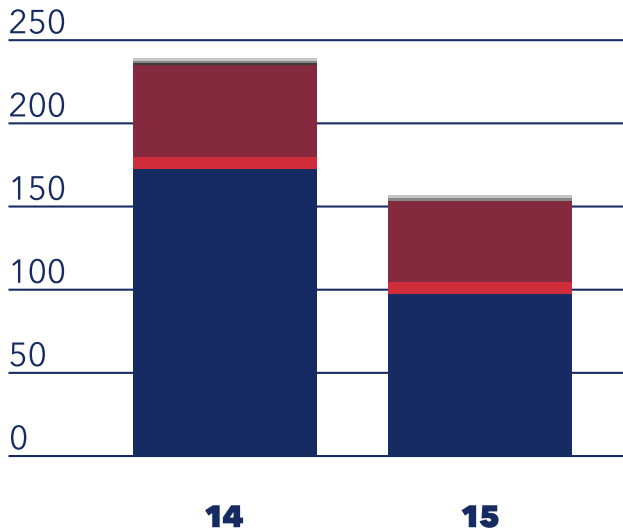
HKScan disclosed its greenhouse gas emissions in accordance with the Greenhouse Gas (GHG) Protocol, Scope 1 (direct emissions) and 2 (indirect emissions), for the first time in 2014. In 2015, we performed our second calculation, and it showed improvement in several areas, as described in the following. See our [website](#) for more information (to be updated by the end of March).

In total, HKScan's GHG emissions decreased by 35 per cent or 83 thousand tonnes from 2014 to 2015. The total for the entire Group, Scope 1 & 2, was 156 thousand tonnes of CO<sub>2</sub>e. The decrease is mainly attributable to the purchase of hydroelectricity in Sweden and Poland, and a lowered emission factor for the Nordic residual mix and residual mix in Estonia.

- Electricity usage on premises: A decrease of 32 thousand tonnes was achieved by switching to hydroelectricity in production in Sweden and Poland. The emission factor for the Nordic residual mix and Estonian residual mix was reduced, resulting in a reduction of 28 thousand tonnes of emissions. Group-wide, electricity usage declined by 4 per cent.
- Heating on premises: The GHG emissions caused by heating declined by 7 thousand tonnes. The use of more specific emission factors for Finnish district heating accounted for more than half of the decrease. In Rakvere, Estonia, the increased use of frying oil and animal fat for heating lowered the use of natural gas by 25 per cent in total. Additionally, two Estonian farms have switched from fossil fuels to wood pellets. In Sweden, the introduction of biogas in Skara plant substantially decreased the use of oil. The supplier of district steam in Linköping, Sweden, has switched from oil to using mainly wood pellets, thereby lowering Scope 2 emissions.

The largest relative decrease in emissions resulted from preventing leakage of refrigerants, which achieved a reduction of 64 per cent or 584 tonnes. Emissions from transports, travel and freezing are in the same range as in 2014.

**GREENHOUSE GAS EMISSIONS  
2015 (2014)  
THOUSAND TONS CO<sub>2</sub>e**



- Travel 2 (2)
- Transport 1 (1)
- Refrigerants 0.3 (1)
- Heating 49 (56)
- Freezing 7 (7)
- Electricity 96 (172)
- Total 156 (239)**

Direct (Scope 1) and indirect (Scope 2) GHG emissions according to the Greenhouse Gas Protocol.

**WASTEWATER**

In 2015, HKScan made two major investments in its wastewater treatment plants. In Outokumpu, Finland, the level of nitrogen, biochemical oxygen demand (BOD) and total suspended solids (TSS) has been higher than is allowed under the Group’s environmental permit. The Group has built a flotation facility to reduce its emissions. The upgrade was finalized at the end of the year.

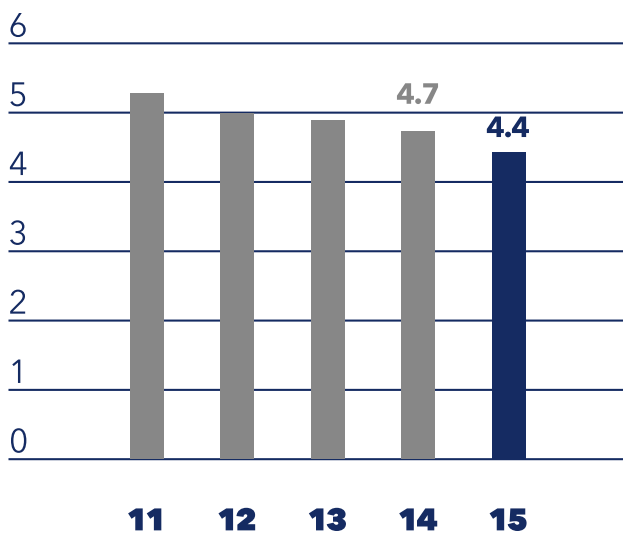
In Mikkeli, Finland, the fat content in wastewater exceeded the limit set in the environmental permit. In summer, a fat separator was installed to reduce fat volumes. After the installation the tests showed results well under the permissible

level. We are working to reduce our wastewater emission levels to clearly below those required under environmental permits. HKScan complies with the requirements of local wastewater treatment plants.

## WATER USE

HKScan has reduced its water consumption by 15 per cent during the last five years. The decrease is due to continuous improvements and use of best practices, such as water recirculation systems. HKScan sees an opportunity to decrease water consumption further and in a larger scale in the coming years.

### WATER CONSUMPTION MILLION M<sup>3</sup>



## CHEMICAL MANAGEMENT

To decrease the amount of chemicals used and to substitute them with more environmentally sound options is an ongoing process. HKScan uses a system which closely monitors the chemicals and their environmental and health effects.

## MATERIAL EFFICIENCY AND WASTE

Material efficiency, such as using all parts of animal raw material and minimizing food waste, is another focus area. To increase the level of recycling, several production plants have been able to sort out more fractions over the years.

The Group targets to move towards a circular economy of resources. At our production plants our aim is to use the waste hierarchy where firstly waste is reduced, followed by reuse, recycle, energy recovery and landfill as the last option. The amount of landfill in the Group has decreased steadily during several years. Larger improvements will be seen during 2016, especially in Finland where organic waste will no longer go to landfill.

Improvements in 2015 include recycling of wet or dirty plastics in Denmark. In Sweden, a packaging tray made of recycled PET was taken into use. The tray will decrease GHG emissions by 50 per cent compared to other trays. The

amount of food waste has been reduced by improvements in production and by cooperation with 'the Social Supermarket' in Sweden. Read more [on our website](#).

The Group Biotech Business Line established at the end of 2014 has continued working on reducing animal based raw material waste. These materials are now further directed into production of bioenergy and into other more efficient use. At the same time, the business line continues optimizing the use of byproducts and finding new value added uses for the material.

