

Environmental review

Key objective

As our business grows and develops, so does our environmental footprint. Taking a responsible approach to our impact on the environment is one of the keys to the Company's successful and sustainable long-term development.

Environmental strategy

As a leader in Russia's food retail market, we are aware of the extent of our impact on the environment, and we strive to fully comply with Russian legislative requirements and the highest international environmental protection standards. At the same time, we take every opportunity to improve our business efficiency while implementing our environmental policy and to generate additional profit.

Policy highlights

- At the Corporate Centre level, we set Group-wide strategic priorities that impact our environmental footprint.
- Our management team is responsible for setting goals and objectives in terms of our environmental performance and for carrying out regular monitoring of measures aimed at achieving those goals.
- Each of our retail formats and our logistics and transport divisions are independently responsible for implementing their environmental policy and for complying with Russian regulatory norms regarding waste disposal and emissions.
- We aim to minimise any negative environmental impacts associated with waste generation and harmful emissions from our operations, and we carry out a variety of activities in our stores, distribution centres and offices that focus on three main areas: energy efficiency, secondary raw materials (recyclable waste) and waste management. In doing so, we are guided by the following principles:
 - We try to reuse and recycle all sorts of materials, including cardboard, shrink wrap, plastic boxes, banana boxes, waste vegetable oil, scrap metal and pallet scrap
 - We strive to minimise the risk of violating sanitary regulations or rules for the collection, storage and disposal of waste
 - We are reducing energy consumption by introducing energy-saving technologies in our stores, distribution centres and offices
 - We welcome all stakeholders to play a part in determining our approach to our environmental strategy
- Our distribution centres and logistics facilities strictly adhere to pest control and de-infestation procedures
- Internal audits enable us to evaluate the effectiveness of the measures taken and to set new goals for our environmental policy
- To ensure the participation of every manager and employee in our environmental actions, we have developed special training and courses.
- Waste generated by our stores is transferred to third parties either for burial at landfill sites or for further recycling. We have established a list of recyclable waste to be disposed of by third parties, significantly reducing the quantities to be discarded and, as a result, the negative environmental impact of landfills



2018 performance highlights

Goals and targets

	Pyaterochka	Perekrestok	Karusel	Logistics
Energy efficiency	<ul style="list-style-type: none"> Using LED lighting in all stores Installing energy-efficient equipment in stores Enhancing data collection mechanisms to minimise energy use, including through internal process automatisation Tariff optimisation 			<ul style="list-style-type: none"> Using modern energy-saving technologies to optimise energy use in DCs
Recycling	<ul style="list-style-type: none"> Collect and sell 100% of recyclable waste Continue to launch new initiatives to enhance culture of recycling in the Company 			
Waste management	<ul style="list-style-type: none"> Smart waste management Minimising waste disposal costs Compliance with Russian legislation in terms of waste disposal 	<ul style="list-style-type: none"> Efficient storage and disposal of organic waste, including using special equipment Compliance with veterinary rules and regulations in waste management process 		<ul style="list-style-type: none"> Smart waste management Minimising waste disposal costs Compliance with Russian legislation in terms of waste disposal
Emissions				<ul style="list-style-type: none"> Compliance with Russian legislation in terms of emissions Reducing emissions through truck fleet improvement and supply chain optimisation

Energy efficiency

Electricity consumption accounts for around 56% of our total utilities costs, which makes it the most important area of focus. X5 continued implementing a number of initiatives aimed at optimising electricity usage throughout 2018.

Monitoring energy consumption

- In 2018, we completed a pilot project and began equipping stores with an automated data collection system (ADCS) as part of a project to monitor and record the volume and quality of electricity usage at Pyaterochka. This system enables the use of an online system to automatically reduce electricity consumption, analyse data flows and calculate optimal tariffs. By the end of December 2018, more than 7,000 Pyaterochka stores had been equipped with smart meters that saved the Company RUB 75 million during the year. We currently plan to install the system in another 756 existing stores in 2019 and also to equip all newly built stores that come online with smart meters as well. The installation of the system is expected to save the Company at least RUB 150 million per year from 2019.
- In addition, the ADCS enables Pyaterochka to take advantage of every opportunity available in the wholesale and retail energy markets in terms of tariff management by moving its purchase of electricity to a retail provider. Electricity prices offered by retail providers are at least 2% lower than the current prices offered by guaranteed suppliers.
- In 2018, Perekrestok launched a project called “Energy-Efficiency Upgrade of the Automated Commercial Energy Metering System” (ACEMS). The ACEMS project allows us to obtain reliable information on electricity consumption, to check our meters on the spot and to conclude direct contracts for energy supply on the basis of multi-tariff payments. As of the end of 2018, more than 400 of the format’s stores had been equipped with this system, and the project is due to be completed in July 2019.

Remote operation

- All Pyaterochka sites operated remote-controlled refrigeration systems in 2018, and we are able to remotely monitor control and maintenance of refrigeration equipment. In 2018, the savings amounted to RUB 70 million due to reductions in service calls for repairs to refrigeration equipment and for adjustments of the settings for optimal conditions in terms of cooling capacity.

Lab store

- In developing and introducing innovations based on Pyaterochka’s lab store, a smart store project was developed and piloted in three locations. The purpose of the project is to enable remote, automatic monitoring and control of the operation of all electrical systems at a particular location. This is the first such project in the market; there were no ready-made solutions available; instead, everything was developed specifically to meet our needs. The expected result will be energy savings equal to about 7% of current consumption.

LED lighting

As part of our efforts to improve energy efficiency throughout our Karusel format, the lighting was upgraded at a number of sites:

- During reconstruction works, 16 sites were completely switched over to LED lighting. As of the end of 2018, 24 stores had been completely switched over. All Perekrestok and Pyaterochka stores already have LED lighting installed.
- Fluorescent lights were replaced with LED lighting at 16 sites.
- Neon signs were replaced with LED signs at four sites.

Recyclable waste

- The Pyaterochka, Perekrestok and Karusel retail formats sell 100% of their recyclable waste. Our retail formats and distribution centres do not carry out their own independent processing of secondary raw materials and waste. Our stores and distribution centres collect and compress cardboard. All secondary raw materials are then centrally collected and sold to specialised companies or suppliers for further use or recycling. All contractors are audited by the Company as part of the tender process, after which the best specialised company is chosen in terms of reliability, capacity and price.

- In addition, Pyaterochka operates a portal for returnable packaging that suppliers can use to purchase recycled materials from distribution centres.
- At Perekrestok, all the containers, pallets and plastic boxes that are to be reused are sent back to distribution centres.
- In 2018, Pyaterochka worked on developing a project to use recycling kiosks to collect PET bottles from the general population. A pilot project to install recycling kiosks in stores is scheduled to launch in 2019, which will be used to determine how much demand there is for this service among shoppers.
- The central offices of our retail formats also run separate waste collection for used batteries, plastic, polyethylene, paper and aluminium cans. Collection points are available for batteries and waste paper.

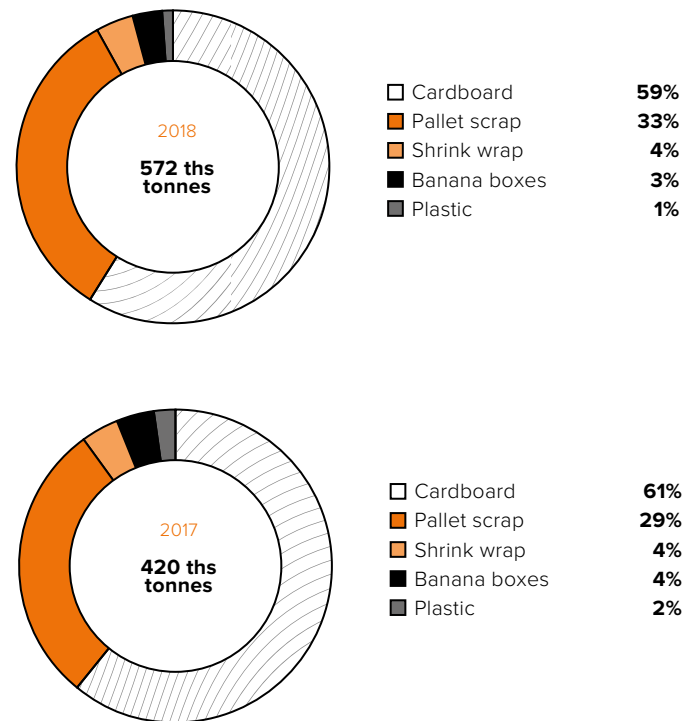
Organic waste management

- Both renovated and newly built Karusel hypermarkets have installed biocompactors for processing and compressing organic waste. Thanks to the special design of these hermetically sealed containers, the compressor is protected from moisture, which helps minimise the decay of rotting food waste, keeping the area clean and in line with sanitary standards.
- Karusel hypermarkets and Perekrestok supermarkets are also equipped with special refrigerators for the temporary storage of food and biological waste. This enabled the Company to set up a process for collecting, storing and disposing of waste in accordance with veterinary rules and regulations.

Total income from sale of recyclable waste, RUB mln

	2018	2017	% change, y-o-y
Pyaterochka	1,817	1,386	31.1%
Perekrestok	314	172	82.4%
Karusel	145	139	4.3%
TOTAL	2,276	1,697	34.1%

Amount of recyclable waste sold, tonnes



- As part of a project to reduce the cost of Pyaterochka's solid waste collection, arrangements were made in 2018 to sell food waste in the fruit and vegetable and bread categories from stores and distribution centres. As a result of the pilot project, expenditures on solid waste collection were reduced by RUB 4 million, as we were able to start selling waste to farms and zoos etc. instead of sending it to landfills. Pyaterochka became the first company in the industry to start selling food waste, which gave rise to a demand market and the appearance of new partners. We now expect to see a positive price trend in 2019.
- At Perekrestok stores, all food and biological waste must be destroyed or processed into animal feed. Perekrestok arranges centralised monthly removal of food and biological waste.