

Supply chain environmental strategy

As the scale of our business grows, so does our supply chain network: we are continuously expanding our distribution centres and fleet of trucks, as well as our use of outsourced transportation services. While implementing our environmental strategies, we strive to reduce our footprint by optimising our logistics network, managing the solid waste we generate responsibly and using the most environmentally efficient technologies in our supply chain operations.

Policy highlights

Distribution centres

X5 is implementing eco-development principles for its logistics network and is fully compliant with Russian legislation. The main goals of our DCs are to reduce the consumption of energy and materials, while also increasing the quality of buildings and reducing operating costs, thereby reducing our environmental impact. At our distribution centres, we also collect and sell cardboard, plastic shrink wrap, packing materials and pallets as recyclable waste and dispose of domestic solid waste in accordance with Russian legislation.

Transport

Our Transport Department has a significant environmental impact, and we use a variety of tools to minimise the footprint of our transport services from distribution centres to stores, including investments in a modern and efficient truck fleet, optimising itineraries and disposing of car tyres and tubes, batteries, ferrous and non-ferrous metals, car oil and other materials in line with Russian law.



2018 performance highlights

Reducing mileage

- The Company strives to optimise transport itineraries, thereby decreasing logistics costs and reducing the environmental impact. Through this optimisation, the Company managed to decrease the share of empty-car miles as a percentage of total miles from 47% in 2016 to 35% in 2017 and 31% in 2018.

	2018	2017	2016
Total miles, mln km	443.8	344.9	242.3
Empty-car miles, mln km	156.3	142.6	113.1
Share of empty-car miles as % of total miles	35.2%	41.3%	46.7%

- As 85% of our distribution centres are leased, we are flexible at changing DC locations depending on current needs and store base, which enables us to choose the most efficient locations in terms of transportation.
- In 2018, the Company launched a project to use vehicles with increased cargo capacity, which will reduce fuel consumption and vehicle mileage, thus increasing the efficiency of cargo transportation, in terms of both cost and environmental impact.
- In 2018, we launched a project to switch our supply chain from road to rail for transportation over long distances, which also has a positive effect on our environment impact.

Improving truck fleet

- Improving our truck fleet is one of the Company's key priorities. Our truck fleet covered 85% of our transport needs in 2018, compared to 74% in 2017, and it is newer than the fleets of most of our external contractors.
- In 2018, the Company launched a full-scale process to re-equip its own fleet with hybrid gas-diesel engines. At the end of 2018, there were 280 vehicles with hybrid engines in the truck fleet, and by the end of 2019, the Company plans to have over 3,400 hybrid-engine vehicles in its fleet, taking into account planned purchases of new trucks.
- We only use certified service stations to provide regular maintenance for our trucks in line with legislation and the norms established by truck manufacturers. We also monitor the condition of our vehicles, including their exhaust systems on a daily basis, which is part of our mechanics' and drivers' responsibilities.
- We do not purchase used or outdated vehicles, nor do we use vehicles that have reached the end of their service life in accordance with the manufacturer's recommendations. By the end of 2018, the average age of our fleet was two years, compared to an average age of three years at the end of 2016. As of year-end 2018, 90% of our truck fleet met Euro 4 or Euro 5 standards, while 10% met Euro 3 standard. Since 2018, we have

been purchasing only Euro 5 or higher-class vehicles, and we have been using only high-quality fuel from leading producers. We purchased 916 Euro 5 standard trucks in 2018, compared to 314 in 2017. Our ongoing updates to our fleet have had a positive impact on our emissions performance:

Type of emission	2018	2017	% change, y-o-y
CO (carbon monoxide), grams/kW/hour	1.50	1.55	-3.2
HC (hydrocarbon), grams/kW/hour	0.46	0.48	-4.2
NOx (nitrogen oxide), grams/kW/hour	2.00	3.12	-35.9
Suspended particles, grams/kW/hour	0.02	0.03	-33.3

- In 2018, we launched a project to install thermo-curtains and PVC curtains on trucks, which enables us to implement strict standards for our cold chain, as well as to reduce fuel costs and the use of cooling materials, especially when there are significant temperature differences between the vehicle and the environment.
- In 2018, 100% of the tyres and batteries used by our transport fleet were recycled.

Transportation fleet solid waste disposal

	2018	2017	% change, y-o-y
Number of tyres disposed for recycling, units	3,976	3,136	26.8
Batteries disposed of for recycling, kg	64,227	48,756	31.7

- Transportation contractors are responsible for compliance with environmental requirements, and our transport service agreements stipulate that trucks must meet all legislative requirements, including environmental requirements.

Recycling and waste management

We aim to reduce the use of disposable packaging materials. Starting from 2018, X5 has been implementing a project to use pooling containers, thereby reducing the waste of cardboard, wood and plastic.

As part of X5's optimisation of business processes and the implementation of the Digital Economy state project, we launched a project to use electronic transportation documentation, which will make it possible to reduce paper use by more than 20 tonnes per year, given the current fleet size.