

REDUCING CARBON FOOTPRINT IN LOGISTICS

Luchko M. A., student

Scientific supervisor – Slesaryonok E. V., senior lecturer

Belarusian National Technical University

Minsk, Republic of Belarus

Global warming challenges are being felt all over the world, as evidenced by the recent European heat wave. Numerous studies by environmentalists show that if we continue to use the Earth's resources at the same rate, then we will need 1.7 equivalents of our planet. One of the most resource-intensive areas is transport logistics.

ISO 14067:2018, Greenhouse gases. The carbon footprint of products. Requirements and guidelines for quantification and communication is an international standard that contains global principles, requirements and guidelines for quantifying a product's carbon footprint (CFP). This document will provide organizations of all kinds with the tools to calculate their carbon footprint and help reduce it.

As a rule, the transport of customers before automation goes on flights with a load of 70–75 %. One of the key tasks of the program for logistics is to combine as many points as possible that are close to each other into one route. As a result, the routes are more "compact" and loaded – up to 90 % and more, and their number is constantly decreasing.

During the planning stage, compact routes are created that require less time, and therefore less fuel. At the same time, statistical data on street traffic is taken into account, thereby reducing the time spent in traffic jams. Obviously, driving in low gears and idling the car engine increases fuel consumption and CO₂ emissions.

The carbon footprint of logistics forms not only when it directly carries out transportation, but also during the journey of workers to the place of work. Given that most of the large logistics centers are located outside the city, the carbon footprint of these workers is greater than compared to other areas. One of the most anticipated prospects in the next 10–15 years is the development of electric vehicles and alternative fuels, which will leave behind most of the current problems with the use of internal combustion engines and lead to a significant reduction in the carbon footprint.