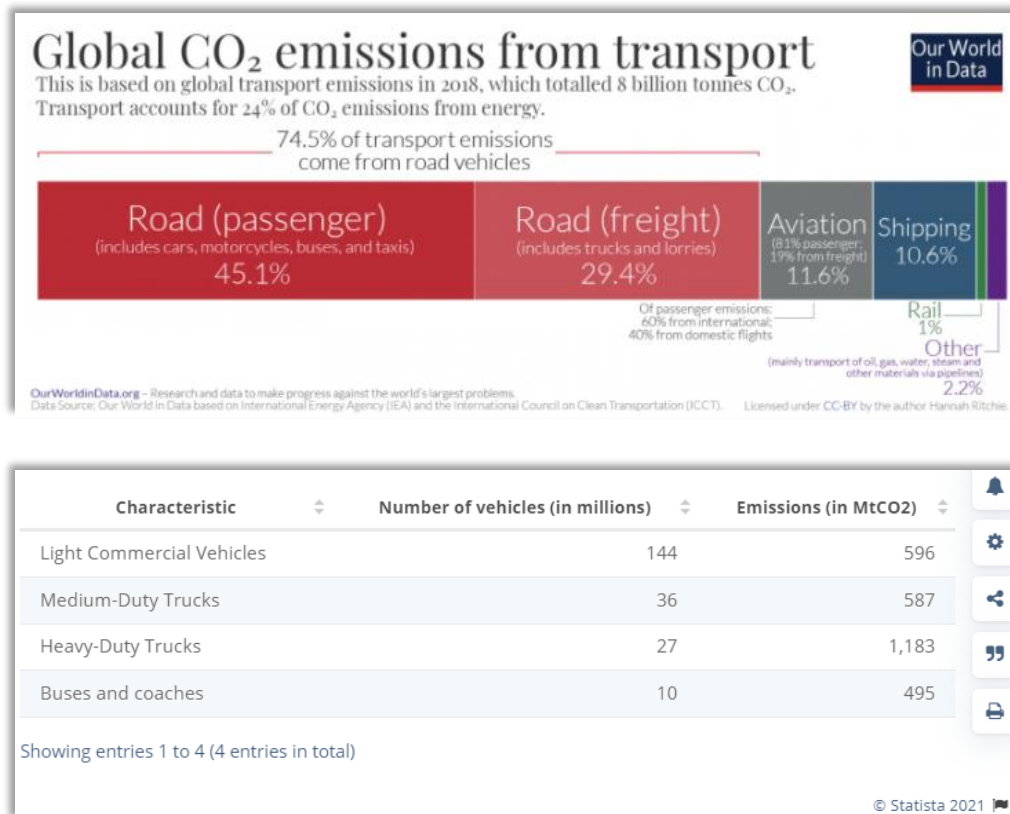


## Using Urbana for reducing CO<sub>2</sub> emissions

Trucks and commercial-vehicles cause about 30% of CO<sub>2</sub> emissions by all transportation modes. Reducing these emissions should be a prime objective for governments, companies and the public.

A heavy truck, operated 12 hours a day and drives 5.5MPG, is equivalent to **36 cars** that are used 1.5 hours a day and drives 25MPG.



Reducing emissions by commercial vehicles would make a substantial contribution to the fight against global warming. Governments are expected to continue penalizing companies for inefficient operations and reward efficiency (see in link). Many leading companies have actually undertaken emissions reduction on their own initiative.

Applying optimal transportation planning can have an **immediate effect** on emissions reduction by the massive base of **existing commercial vehicles**. Emerging engine technologies would take years to mature, and would affect **only new vehicles**.

Note: trucks typically have 13 years of operating life. Even if fleet operators buy 30% of new trucks electric, it would take about 40 years to replace the entire fleet. [ = 1 / (7.6% \* 30%) ]

Planning schemes to enable emissions reduction:

- Optimal route planning which minimizes total miles travelled (VMT).
- Load consolidation that minimizes wasteful empty or partially-loaded truck travel.
- Allocating the most efficient truck for each task, based on vehicle emission-profiles
- For heavy goods/materials: shorten fully-loaded travel by scheduling to drop the heaviest cargo early in the route, and avoid travel with dead-weight that increases fuel consumption.

Urbana uses comprehensive data for AI planning: cargo weights and sizes, detailed vehicle profiles and precise map data. Urbana's policies and rules can be configured to direct AI planning to implement one or a combination of the above schemes.

Urbana also includes built-in BI and Dashboards, which allow to monitor the effect of these policies on performance and cost, and achieve a well-balanced planning policy.

Optimal planning can be applied to benefit the environment with an immediate effect.

If you have refreshing insights on this matter, please share with us: [Urbana.Tech](#)

\* Perspectives regarding the expected role of EV-Trucks in reducing emissions will be provides in a future info.