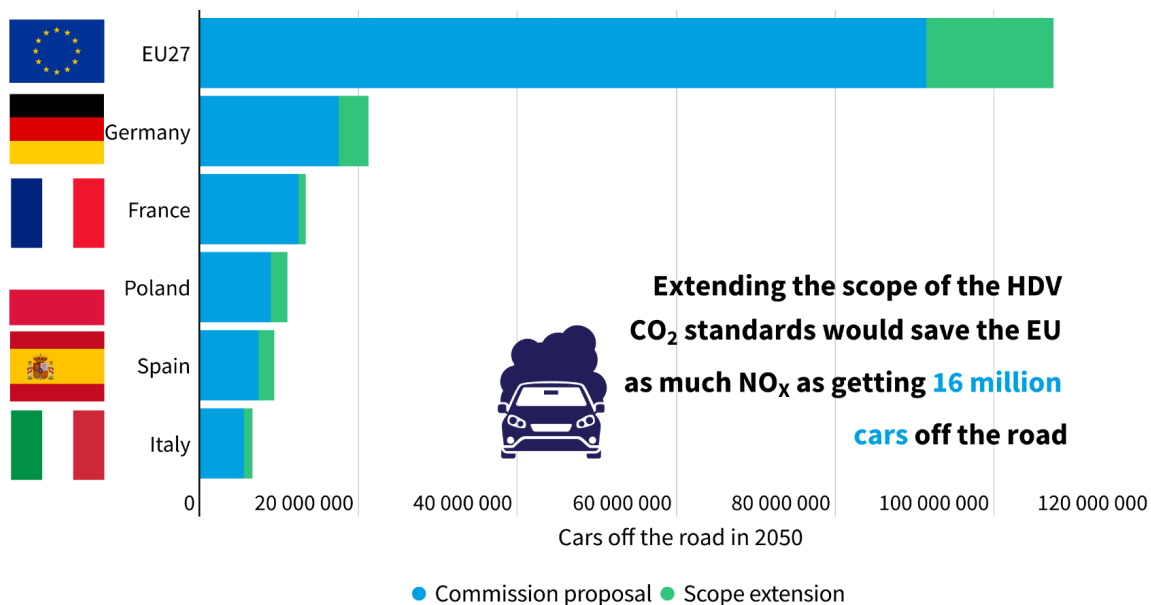


The invisible killer on Europe's roads

Tackling truck pollution will save lives and money

The European Parliament and Council should use the trilogue negotiations on the heavy-duty vehicle (HDV) CO₂ standards to extend the scope to small and vocational trucks. This would reduce air pollution from HDVs by an additional 6 percentage points (87% vs. 81%) by 2050 compared to the Commission proposal and would save €15 billion in health costs.



1 Over 400,000 people died prematurely in 2020 in the EU due to air pollution. Trucks and buses are responsible for 25% of it.

2 Extending the CO₂ standards to urban delivery, garbage and construction trucks - which drive around in our cities every day - would save as much nitrogen oxides (NO_x) by 2050 as getting 16 million polluting cars off the road.

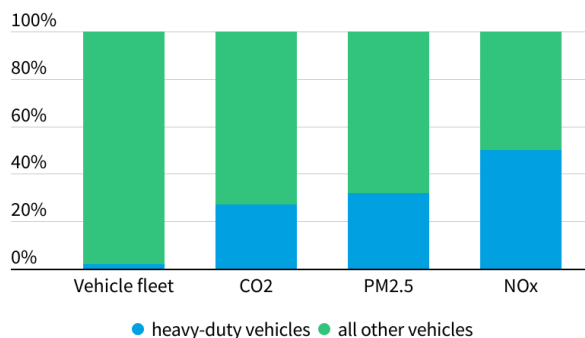
3 Keeping small and vocational trucks exempt from the HDV CO₂ standards would cost EU taxpayers almost as much as the entire GDP of Malta (€15 billion) by 2050.

The looming threat of air pollution

There is an invisible killer on the streets of Europe. Every day, trucks and buses pump out massive amounts of deadly air pollution in the form of nitrogen oxides (NO_x), particulate matter (PM_{2.5}) and ammonia (NH₃). These byproducts from fossil fuel combustion were responsible for respectively over **412,000 (PM_{2.5}) and 136,000 (NO_x) premature deaths in 2020**. Air pollution from heavy-duty vehicles (HDVs) causes a multitude of preventable diseases including cancer, stroke and cardiovascular disease [1]. In addition, these pollutants reduce crop yields and lead to biodiversity losses.

Big rigs cause big pollution. While making up **only 2% of the vehicles on EU roads** [2], HDVs are responsible for a whopping **50% of NO_x emissions** from road transport [3], which is the sector's most widespread air pollutant. In addition, HDVs account for **32% of road transport's PM_{2.5} emissions** [4], as well as **27% of its CO₂ emissions** [2]. As such, trucks and buses have a disproportionate impact on both climate change and air pollution.

HDVs in EU road transport

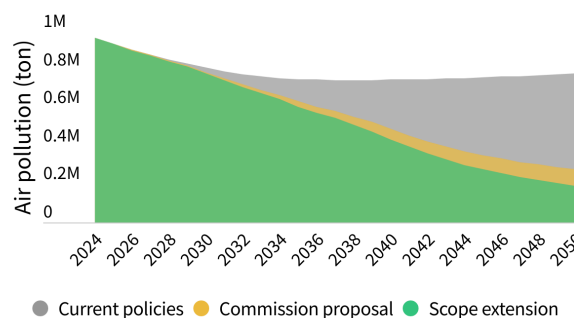


Luckily, **a solution is available** to eliminate air pollutants from the sector. In early 2022, the EU proposed more ambitious CO₂ targets for HDVs,

requiring truckmakers to sell an increasing share of **zero-emission (battery electric and hydrogen-powered) vehicles**. Apart from eliminating tailpipe CO₂ emissions, these vehicles also no longer emit any combustion-related pathogenic air pollutants. The positions of both the European Parliament as well as the Council confirmed the CO₂ targets as proposed by the Commission. In addition to this, the Parliament also extended the scope of the regulation to small lorries and vocational vehicles.

If more ambitious standards on truckmakers are set into law as proposed by the European Commission (and confirmed by the co-legislators), T&E estimates **a 46% reduction in air pollution from trucks and buses in 2030, reaching -81% by 2050**. If, in addition, the scope is extended to small lorries and vocational vehicles as proposed by the Parliament, air pollutant emissions **would be reduced by as much as 47% until 2030, and 87% by 2050**.

Air pollution from HDVs



Extending the regulation's scope would particularly benefit air quality in Germany and Slovakia (reducing air pollutants by an additional 14 percentage points for both), Lithuania (-12 pp), Spain (-11 pp), Poland (-9 pp), Greece (-8 pp), Italy and Romania (both -7 pp).

Preserving human health, however, will eventually require the full elimination of air pollution. T&E had therefore recommended further strengthening the 2030 CO₂ target (from -45% to -65%), and setting a 100% zero-emission target for freight trucks in 2035 (whereas the Commission only proposed a -90% reduction in CO₂ emissions from new HDV sales by 2040). If such higher standards were adopted in the future, we **could eliminate air pollutant emissions from HDVs almost completely by mid-century (-97%)**.

Cutting air pollution costs

Reducing air pollutants from HDVs will also have a significant impact on European countries' balance sheets. Between now and 2050, Europe is on track to spend more than the entire GDP of Portugal (around €280 billion) on **air pollution externalities caused by trucks and buses**. Adopting the new CO₂ targets for truckmakers as proposed by the **Commission** would **reduce these costs by 25%** (or €70 billion), while extending the scope to small lorries and vocational vehicles would reduce costs even further (by an additional €15 billion).

Zero-emission trucks for a cleaner future

The World Health Organisation (WHO) has recently declared air pollution a threat as risky as unhealthy diets and tobacco [5]. While the CO₂ standards for HDVs as proposed by the Commission can achieve significant reductions in air pollution from HDVs, extending the scope to those trucks which most frequently operate in Europe's cities and urban areas offers the opportunity to save countless lives and redirect precious financial resources towards improving education, health and social aid systems.

References

- [1] European Environment Agency (2022). *Health impacts of air pollution in Europe, 2022*. [Link](#).
- [2] Transport & Environment. (2023). *Addressing the heavy-duty climate problem*. [Link](#).
- [3] European Commission. (2022). *Proposal for a regulation of the European Parliament and of the Council on type-approval of motor vehicles and engines and of systems, components and separate technical units intended for such vehicles, with respect to their emissions and battery durability (Euro 7)*. [Link](#).
- [4] European Environment Agency (2022). *European Union emission inventory report 1990-2021*. [Link](#).
- [5] World Health Organisation. (2021). *Air quality guidelines: particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide*. [Link](#).

Further information

Luca Poggi

Data Analyst

Transport & Environment

luca.poggi@transportenvironment.org