

Quantifying the Competitive Edge:

Economic and Industrial Impact of Europe's Heavy-Goods Vehicle Electrification by 2035

EXECUTIVE SUMMARY

E-Mobility Europe

Europe must lead the shift to electric trucks to capture its competitive gains

Europe's transition to electric heavy-duty transport is an industrial opportunity that must be seized.

The EU enters this transition with major strengths: a world-leading truck manufacturing base, an established network of suppliers and logistics operators, and significant capabilities across energy, charging, software and services. The question for the decade ahead is therefore not simply whether Europe electrifies its heavy-duty fleet, but whether Europe captures the economic and industrial value created by that transition.

In this study, two pathways to 2035 are compared. An accelerated electrification scenario combines timely delivery of stated electrification commitments with industrial policies supporting stronger EU supply-chain localization. Whereas, the slower scenario assumes slower electrification and weaker localisation, with greater import dependence.

The results are clear: delivering on Europe's current electrification policy ambition delivers the greatest increase in annual value added across Europe's heavy-duty transport ecosystem, reaching as much as €9.1 billion more every year. At the same time, faster electrification will displace around 21 billion litres of diesel by 2035, keeping more money in the EU economy and reducing its exposure to volatile fossil fuel imports.

The global race is already underway

The transition will not wait for Europe. Competition in zero-emission trucking and its supply chains is accelerating rapidly. China's rapid scale-up of zero-emission trucks, battery production and critical-material processing demonstrates both the speed of the transition and the scale of the opportunity. In H1 2026, China already took more than 90% of global zero-emission truck sales (SFC/BNEF 2025).

If Europe does not compete for the new value created by electrification, others are ready to capture it.

THE BENEFIT OF ACCELERATION (EU GVA 2035*)

€9.1bn:



Truck manufacturing and its suppliers

Maintenance, energy supply, charging and grid services

Freight transport operations

Electrification creates opportunities across an entire ecosystem: from batteries, electric powertrains and vehicle assembly to charging hardware, grid infrastructure, software, energy management, electricity supply, maintenance and logistics.

On top of EUR 2.5 billion from electric truck manufacturing and EUR 3.4 billion from freight transport, the study finds that charging, grid work electricity supply, and electric maintenance alone would represent an additional EUR 3.1 billion.

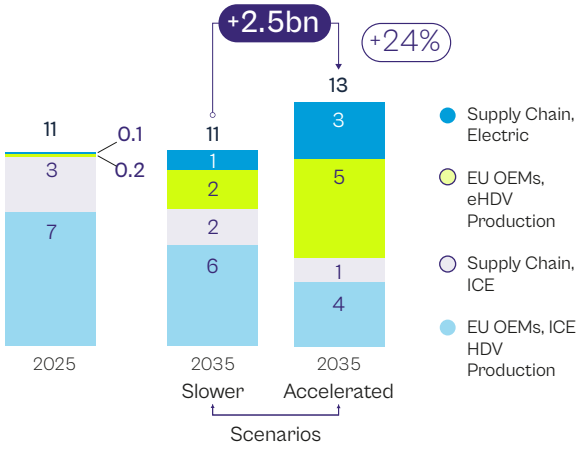
Ultimately, the opportunity is greatest when Europe captures more of the value chain at home, particularly in strategic areas such as batteries. Strengthening European battery production and other key capabilities will keep more of the value created by electrification in Europe, supporting economic value and future-proof jobs across the wider industrial ecosystem.

*All figures show the difference between the accelerated and slower electrification scenarios.

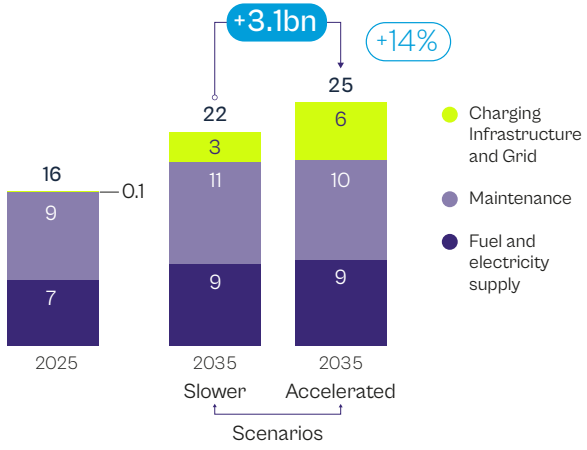
Delivering EU policy ambition and strengthening supply chains will keep more value in Europe.

THE BENEFIT OF ACCELERATION IN DETAIL (EU27 GVA 2035*)

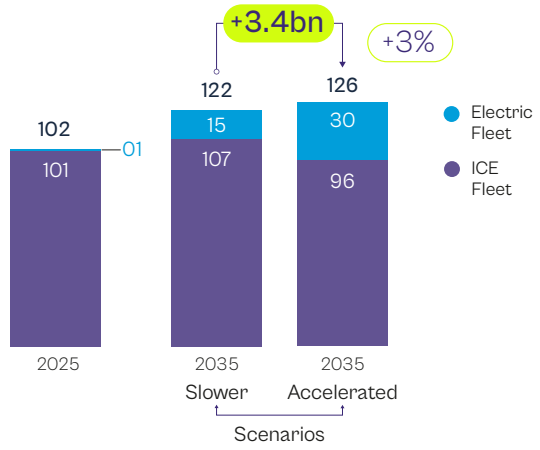
Truck manufacturing and its suppliers (€bn)



Maintenance, energy supply, charging and grid services (€bn)



Freight transport operations (€bn)



SUMMING UP THE DATA:

- **The accelerated pathway delivers net industrial growth.** New electric activity more than offsets declining diesel manufacturing and supplier activity. Under the slower scenario, it largely replaces the losses.
- **The opportunity extends beyond manufacturing.** Charging, electricity supply and grid services also contribute to value creation.
- **Europe can build on its established truck industry.** Capturing the opportunity requires European firms to scale and remain internationally competitive.
- **Overall gains are unevenly distributed.** Suppliers, workers and regions dependent on diesel technologies may lose out even as the ecosystem grows.
- **Both scenarios include growing freight activity.** The difference between the two shows the additional value associated with their different electrification and localisation assumptions.

Electrification boosts energy security; delivery and localisation determine Europe’s value capture.

A stronger freight sector means a more resilient Europe

Road transport accounts for around two-thirds of EU oil demand, making it one of Europe's largest remaining sources of imported fossil-fuel dependence. The economic implications are even more acute for road freight, where 80% of EU businesses are SMEs and play a critical role in European supply chains.

Electrification does more than change the technology powering Europe's trucks: it shifts domestic supply chains from dependence on volatile imported oil towards greater reliance on more efficient European energy.

The study shows that the stronger pathway could replace around 21 billion litres of diesel by 2035, nearly twice the volume displaced under the slower scenario.

Under this pathway, electric trucks would also need around 60% less energy than the diesel they replace due to their greater efficiency.

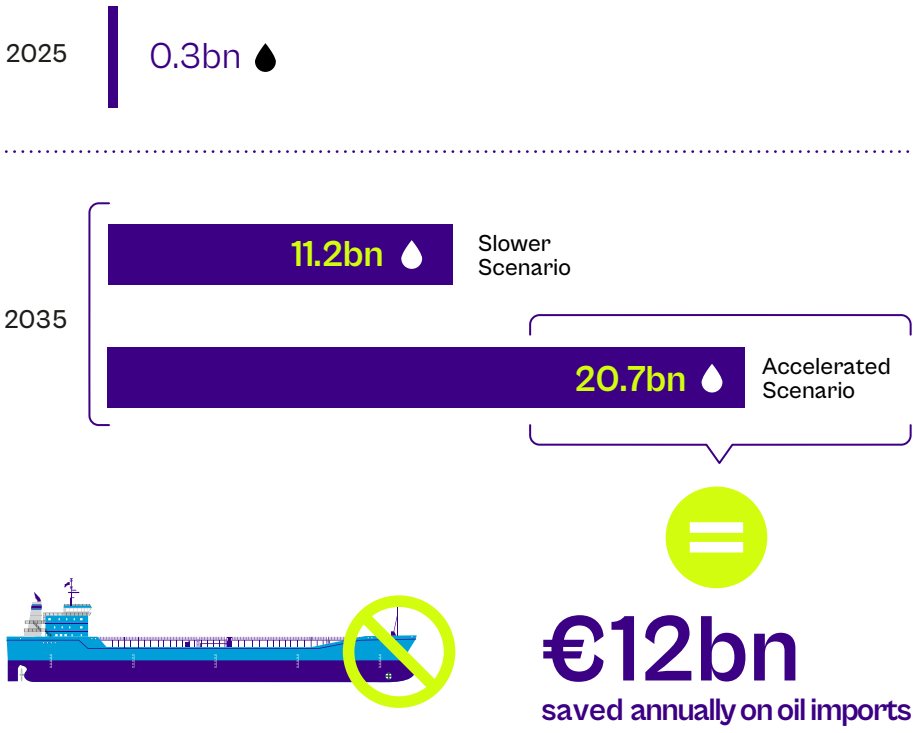
However, without stronger domestic value capture, Europe risks electrifying its transport system while exporting too much of the industrial dividend.

Today, only around 8% of the battery cells used in electric trucks sold in Europe come from EU-domiciled manufacturers; under the study's stronger pathway that share would reach 35% by 2035. Realising the full resilience benefits of electrification will, therefore, require significantly strengthening key European supply chains.

SUMMING UP THE DATA:

- **Lower diesel demand reduces exposure to imported oil** and redirects part of freight-energy expenditure towards European electricity supply.
- **Growing freight demand limits the reduction in total diesel consumption** to around 5% below today’s level under the accelerated electrification pathway.

Diesel demand displaced by electric trucks
(bn litres per year)



€12bn

saved annually on oil imports

This represents 4.6% of the €260bn in annual fossil-fuel import savings the Commission projects for 2040.

Ambition must be matched by the conditions to deliver it

Europe is making progress. Zero-emission heavy trucks now account for around 2.4% of new registrations, up from 1.4% in the first half of 2025, with sales nearly doubling year-on-year in the first quarter of 2026 (ICCT). Yet the market remains at an early stage and progress is geographically uneven.

Closing this gap will require less advanced markets to learn from and replicate the approaches of Member States that are already succeeding in putting the enabling conditions for electric truck deployment in place.

Capturing this opportunity requires coordinated progress across the key enabling conditions. The CO_2 Standards provide important direction and market signals, but they must also be matched by wider enablers. Fleet operators need zero-emission trucks to work economically and operationally, which means tackling the total cost of ownership (TCO) through affordable electricity, carbon pricing, accessible financing and appropriate fiscal and road-charging frameworks, while ensuring charging infrastructure is enabled by grid and permitting procedures.

It also means strengthening European value chains where they remain exposed, particularly batteries and critical materials.

THE ANSWER IS NOT TO SLOW DOWN, BUT TO DELIVER.

The barriers facing electric trucks today are real. But from an economic and industrial perspective, they make the case for action, not retreat. The EU and Member States need a coherent approach connecting climate, industrial, energy, infrastructure and transport policy, giving companies the investment certainty to scale and fleet operators the business case to make the switch.

The strategic choice is whether Europe simply participates in the global shift to electric heavy-duty transport, or turns that shift into a competitive advantage of its own. This report puts that choice into economic terms and shows what Europe stands to gain when ambition and implementation move together.

THREE PILLARS FOR CAPTURING THE BENEFITS

Stable & coherent policies support investment

- **Maintain long-term policy certainty.** Give investors strong, stable policy signals to be able to commit capital at scale for electrification.
- **Close the electric–ICE truck business case gap.** Ensure affordable electricity, ETS II implementation, procurement incentives, toll exemptions, and regulatory adjustments addressing payload penalties to support the fleet operator's switch.
- **EU and national measures are equally important.** They must reinforce each other to ensure more coherent incentives and TCO calculations across the Single Market.

Timely grid and charging deployment support uptake

- **Expand and modernise grids.** Invest early, coordinate planning and speed up permitting and connections to improve access.
- **Derisk high-power charging investment.** Coordinate rollout on freight corridors, at logistics hubs and depots.

Stronger European production retains more value

- **Support European batteries and components.** Stronger EU production capacity would help Europe capture more of the transition's manufacturing value added. This requires a more complete EU industrial policy, as priority including output-based production support for scaling-up local battery and compontent manufacture.

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Full Report

Europe's heavy-duty transport transition is a race for industrial value. Download the full report to see how electrification, localisation and policy delivery shape who captures it.

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