

Zero emissions mobility T&E views

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Europe's leading clean transport campaign group





2020: Year of the Electric Car in Europe

EV share of sales per country, Q1-Q3 2020



Source: T&E analysis of ACEA quarterly registration statistics

TE TRANSPORT & Y II @ Im ENVIRONMENT @transportenvironment.org

How to avoid CO2 & EV stagnation in 2020s

Current situation

EV sales briefly boom in 2020/21 but stagnate until 2029



Need higher targets from 2025



CO2 emission reduction trajectories



Vans are completely off track

- CO2 emissions up 58% from 1990
- Share of e-vans is negligible, only:
 - **1.7%** Jan Aug 2020
- Rising sales of heavier more polluting vans

Time to close the vans' loophole!

- ICE phase-out by 2035 at the latest
- > ZEV sales targets: at least 50% in 2030
- → CO2 reduction targets: at least -60% in 2030

Evolution of van CO2 emissions in road transport



Electric trucks are on the way

European truckmakers to phase out diesel sales decade earlier than planned

Heads of seven businesses sign joint pledge to ditch traditional combustion engines by 2040



Scania launches fully electric truck with 250 km range



Volvo Trucks launches a complete range of electric trucks starting in Europe in 2021



Daimler Trucks & Buses targets completely CO2-neutral fleet of new vehicles by 2039 in key regions

Ambition: New trucks and buses in the triad markets of Europe, Japan and NAFTA'in CO2-neutral driving operation by 2039 (Tark-te-wheef)







CARBON PRICING & ETS

What carbon pricing can and cannot do

Figure 5.1 Emissions from road transport









Carbon pricing (road) CO2 savings potential at €90/tonne

Figure 5.1 Emissions from road transport



Aviation & shipping need effective carbon pricing...

- **50%** of aviation ETS allowances are given for free to airlines
- <u>No</u> fuel tax for airlines or ships (a €50 billion/year subsidy)
- International institutions cannot deliver
- Creates revenues to invest in zero emission tech and efuels

CO2 costs negligible compared to overall transport costs

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Note: An ETS allowance price of 630 euro/tonne is assumed under a femi-full scope ETS design. The port-to-port transport costs are based on the 10 year average freight rates (which include fuel, operational, capital, port and cargo-related costs) for sailing an 18.000 TEU container ship from Spain to Singapore. TEU = standard container

... But <mark>ambitious</mark> fuel policies are essential to decarbonise aviation & shipping



Notes: T&E <u>assumptions</u> for aviation energy demand in 2050 are based on 2016 European Reference Scenario and take into account 150€/tCO2 carbon price and aircraft efficiency improvements. T&E assumes 7.5Mtoe of the available stock of advanced biofuels would be used for aviation. The share of 11.4% takes into account potential rebound effects. feasible at a retail price of 66300/t (excluding taxes), which is more than 10 times higher than the current LNG prices. Energy demand for households is limited to natural gas demand only.

Sources: ICCT (2018), Eurostat (2017), UNFCCC (2017).



OPPORTUNITY



Fleets and company cars should go zero emission now

European taxpayers' €32bn in subsidies to company cars



European corporate new car registrations in 2019

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6 new cars out of 10 are registered through the corporate channel





Alternative Fuels Infrastructure Directive to become Zero Emissions Infrastructure Regulation (charging & H2)

Learn from past mistakes: national binding targets & uniform Single Charging Market for all Europeans to benefit from the transition

We need

- Consumer 1st: easy to install, use & pay
- Charging in buildings (via EPBD)
- Commercial properties: 1 in 5 parking spots equipped by 2025
- Charging masterplan for trucks: targets for public and destination charging at urban nodes
- City hubs for taxis, ride hailing, etc

No sustainable mobility without national commitment



Infrastructure investment

- Charging infrastructure
- Public Transportation
- Bicycle lanes
- Low Emissions Zones

Taxation

- Registration taxes
- Purchasing schemes for zero emission mob
- National carbon price for road transport
- Fuel taxation policies

Regulation

- EU regulation: CO2 standards, Alternative Fuels Infrastructure
- Alleviating national regulatory barriers

Strengthened national targets (Effort Sharing Regulation) needed

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Mission (almost) Accomplished

Thank you! Questions?

Link to report



Charging service: put consumer needs 1st

"Right to plug"



Maintenance & uptime requirements



Connectivity to enable free access to data



Ad hoc payments & transparent prices in EUR/kWh & session



Real-time data on pricing & availability of chargers

Smart charging & grid integration

Plug-in hybrids: not a solution



T&E tests on WLTP-approved PHEV models show significant on-road CO2 emissions, even with fully charged battery

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Beyond driver charging, design is at fault: insufficient electric power, no fast charging, grossly inefficient conventional engines

Remove 0.7 ZLEV multiplier & apply realistic EV vs engine share ("utility factors") based on real-world on-board meter data

E-trucks are on the way (2/2)

Demand is growing



Companies say Brussels must help boost green truck production

Nestlé and Unilever among groups demanding sales targets for carbon free lorries

- » Global competition is on
 - California introduces world's first zero-emission truck sales mandate

