

GLOBAL COMMERCIAL VEHICLE
DRIVE TO ZERO™

A CAMPAIGN OF THE CLEAN ENERGY MINISTERIAL

CALSTART Members' Global Briefing

February 27, 2024

GLOBAL MOU FORUM



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GLOBAL
MEMORANDUM OF UNDERSTANDING



Government of the Netherlands



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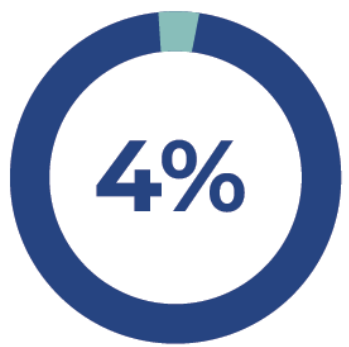
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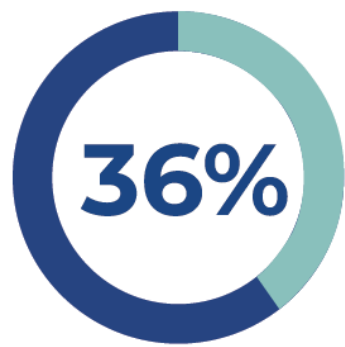
THE CHALLENGE

Small share of the global fleet; contribute disproportionately to fuel consumption and emissions

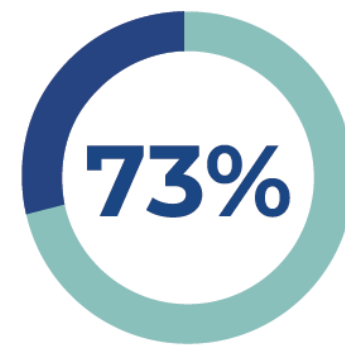
ICCT (2020): Roadmap model



of global on-road fleet are MHDVs



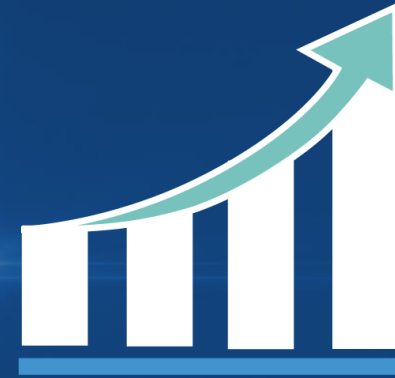
of on-road fuel consumption by MHDVs



of on-road NOx by MHDVs

THE SOLUTION

Zero-emission trucks & buses deliver:



Environmental + Clean Air Benefits

- Energy security + stability
- Net-zero by 2050
- Paris Agreement
- Healthier air
- Stable communities

Economic + Operational Benefits

- Economic security + stability
- Operational savings
- Lower vibration, better driver experience
- Stable, well-paying manufacturing jobs
- Keeping market share, building industry

A semi-truck is shown driving on a multi-lane highway, viewed from a low angle. The image is overlaid with a semi-transparent blue filter and several overlapping, semi-transparent blue geometric shapes (triangles and polygons) that create a modern, layered effect. The truck is positioned in the center-left of the frame, moving towards the right. The background shows a clear sky and the road stretching into the distance.

Drive to Zero's mission is to accelerate a just transition to 100% zero emission commercial vehicles globally to achieve a more sustainable climate and healthier communities



THE REALITY

Zero-emission trucks & buses are already here

China

238,000 ZE truck + bus sales in 2022 alone

India

11-13% of new bus sales by FY2025 will be electric

USA

More than 17,500 zero-emission trucks have been deployed as of June 2023

Latin America

By 2030, Latin America will be home to 25,000 zero-emission buses

Africa

Cape Verde aims for 100% new ZE buses + trucks by 2040 and 100% ZE new sales of 2035



THE SOLUTION:

The Global MOU sets a worldwide ambition and standard for countries and industry



GLOBAL

MEMORANDUM OF UNDERSTANDING

New ZE-MHDV sales

30% by 2030

100% by 2040

GLOBAL

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SUPPORTING ACTION

Working Together





33 GLOBAL MOU COUNTRY SIGNATORIES



Aruba



Austria



Belgium



Canada



Cape Verde



Chile



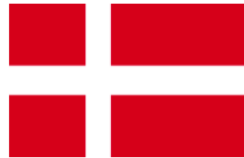
Colombia



Croatia



Curaçao



Denmark



Dominican Republic



Finland



Iceland



Ghana



Ireland



Israel



Scotland



Sint Maarten



Switzerland



Turkey



Ukraine



United Kingdom



United States



Uruguay



Wales



120+ SUBNATIONAL, PRIVATE SECTOR ENDORSERS

SUBNATIONAL GOVERNMENT ENDORSERS



MANUFACTURER AND SUPPLIER ENDORSERS



FLEET OWNER AND OPERATOR ENDORSERS



UTILITY AND INFRASTRUCTURE PROVIDER ENDORSERS



FINANCE ENDORSERS



OTHER ENDORSERS



ZEVWISE

CHARGING UP CHANGE

GLOBAL COMMERCIAL VEHICLE
DRIVE TO ZERO™
IMPLEMENTATION HUB NETWORK



GLOBAL COMMERCIAL VEHICLE
DRIVE TO ZERO™

A CAMPAIGN OF THE CLEAN ENERGY MINISTERIAL

ZETI

GLOBAL
MEMORANDUM OF UNDERSTANDING





SUPPORTING ACTION

Country Engagement: India

- e-FAST India (Electric Freight Accelerator for Sustainable Transport in India)
- Demand Signal ~8000+ ZETs by 2030
- e-FAST Finance Pillar
- High Level Ambition Group (HLAG)



Drive to Zero in Action

Country Engagement: Europe

1. CO2 standards HDVs

- 45% by 2030
- 65% by 2035
- 90% by 2040

2. Alternative Fuel Infrastructure Regulation (AFIR) every 60 km (TEN-T core) to 100 km (TEN-T network) by 2030

3. New: Off-road, Greening Corporate Fleets, MEP Elections in June

4. Building community



SUPPORTING ACTION

With our global implementation hub network, putting Global MOU targets within reach on a national level



Hand-on **fleet support** based on tools, leveraging the **global network**



Global templates and examples for knowledge products, translation to the local level



Pipeline of successful deployments, showcasing technology readiness and policy effectiveness



Identify **regulatory bottlenecks**, build support for **ambitious policymaking**



Drive to Zero in Action

Other Emerging Markets

Largest increases in freight demand will happen in emerging markets

- S/SW Asia: **502%**
- Sub-Saharan Africa: **370%**
- SE Asia: **294%**

197/200 cities with worst air pollution are in emerging markets

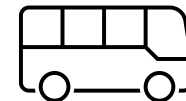
Workstreams



Innovative Financing



Policy & Infrastructure support



Deployment support



TOOLS: ZERO-EMISSION TECHNOLOGY INVENTORY & POLICY SUITE

ZERO-EMISSION TECHNOLOGY INVENTORY

US & Canada | Europe | China | India | Latin America

SELECT FUEL TYPE | **SELECT AVAILABILITY**

Electric | Fuel Cell

Available | 2022 | 2023 | 2024

SELECT A VEHICLE PLATFORM

Transit Bus | Coach Bus | School Bus | Shuttle Bus | Cargo Van | MD Step Van | MD Truck | HD Truck | Yard Tractor | Other

SELECT A VEHICLE MANUFACTURER

APRILIA | AVIVAL | BLUEBIRD | BYD | GEM | HANSA | HINO | JAC | JMC | JONWAY | KAWASAKI | KTM | KYMCO | LEXUS | LIFAN | LUYI | MAZDA | MERCEDES-BENZ | MITSUBISHI | NISSAN | OTO | PLYMOUTH | RENAULT | SANY | SHENYANG | SINO | SUZUKI | TATA | TOYOTA | ZENITH

SELECT VEHICLE MODEL | **VEHICLE MODEL COMPARISON**

CLICK ON MODEL NAMES | SELECT UP TO THREE MODELS FOR COMPARISON

| OEM | VEHICLE MODEL | TECHNOLOGY | VEHICLE TYPE | CLASS/SIZE | RANGE | PAYLOAD |
|-----|---------------|------------|--------------|------------|-------|---------|
|-----|---------------|------------|--------------|------------|-------|---------|

| Category | Maximum | Limited | None Est'd/Unclear |
|---------------------|---------|--------------|--------------------|
| Targets | Orange | Light Orange | Grey |
| Vehicle Regulations | Blue | Light Blue | Grey |
| Vehicle Incentives | Green | Light Green | Grey |
| Infrastructure | Red | Light Red | Grey |
| Innovative Policy | Yellow | Light Yellow | Grey |

United Kingdom

TARGETS
The United Kingdom is a signatory of the Global MOU; The United Kingdom bans sales of ICE trucks up to 26 tonnes from 2035, and all new trucks sale must be zero emission by 2040; The UK aims to reduce 78% of emissions by 2035 based on 1990 level and achieve carbon neutrality by 2050.

VEHICLE REGULATIONS
The UK has maintained EU regulations for CO2 targets for Heavy-Duty Vehicles (HDVs), requiring a 15% reduction in CO2 emissions from new HGVs by 2025 and 30% by 2030 compared to data reported between 2019 and 2020. The UK has also retained the EU regulation mandating OEMs to monitor and report CO2 emissions and fuel consumption of newly registered HDVs. The Renewable Transport Fuel Obligation (RTFO) encourages the supply of renewable fuels to deliver reductions in greenhouse gas emissions.

VEHICLE INCENTIVES
United Kingdom support ZETs with subsidies up to £25,000 until 2024/25 financial year; Over £200M to be invested to demonstrate zero-emission HGVs until 2025/26.

INFRASTRUCTURE
The UK will work with industry stakeholders to develop a plan for ZEHDVs infrastructure rollout and the role of the public and private sectors to achieve this; The UK government invests £1.5B in battery research, £500M in Automotive Transformation Fund, and much more in other R&D.

INNOVATIVE POLICY
Innovative policy for United Kingdom still under development at this time.



KNOWLEDGE: PUBLICATIONS

- **Multi-Country Action Plan 2023:** Tracks global progress toward decarbonizing transportation
- **Locking in Commercial Vehicle Charging Infrastructure:** Guide of the success factors and actions needed
- **Expanding Access to Financing for Zero-Emission Trucks in Latin America and the Caribbean:** Action plan for growing finance in LATAM countries

[Drive to Zero \(2023\). Multi-Country Action Plan](#)





Drive to Zero in Action

Communications

- Communications overview
 - Moments of influence + strategic messengers + messages
- Charging Up Change campaign
 - Real people + real stories = real change
 - [Teaser video](#)
 - Roxanna.smith@globaldrivetozero.org



DRIVE TO ZERO IS CHARGING UP CHANGE

Bringing together Real People, Real Stories, and Real Solutions





SUPPORTING ACTION

Engaging program of events

Community
building

Knowledge
exchange

**Global MOU 2024 In-
person summit:
Madrid, Spain. 12-14 June**



GLOBAL MOU SUMMIT 2023: BERLIN



SUPPORTING ACTION

Setting the Global Agenda

Top tier:

- International Transport Forum (ITF), 24-26 May, Leipzig Germany
- CEM, 25 September, Brazil
- COP29, 11-24 Nov, Azerbaijan

Additional events:

- Regional UN climate weeks
- Transforming Transportation, Washington D.C., USA
- EVS37, June, South Korea
- Sustainable Road Transport Summit, Sept, Amsterdam
- Climate Week, Sept, New York
- Others? What events do you attend?

ENGAGEMENT OPPORTUNITIES

- New Global MOU endorsers will be **publicly spotlighted** at some of the world's most prominent policy and climate change events, like ITF, CEM, COP, and others.
- Invitations to high-level **meetings with top policy and regulatory representatives** from Global MOU signatory countries. One annual in-person meeting + topic-specific sessions.
- **Public acknowledgement** for your world-leading ambitions and efforts.
- Network and collaborate with other champions to accelerate decarbonization of MHDVs
- Endorsement can be done **via online form** [here](#)

GLOBAL

MEMORANDUM OF UNDERSTANDING

info@globaldrivetozero.org

**Aruba Austria Belgium Canada Cape Verde Chile
Colombia Croatia Curaçao Denmark
Dominican Republic Finland Ghana Iceland Ireland
Israel Liechtenstein Lithuania Luxembourg
Netherlands
New Zealand Norway Papua New Guinea Portugal
Scotland Sint Maarten Switzerland Turkey Ukraine
United Kingdom United States Uruguay Wales**

Co-Led by:



Government of the Netherlands

For more information, visit:
<https://globaldrivetozero.org/mou>