



Government of
the Netherlands



Global Memorandum of Understanding on Zero-Emission Medium and Heavy-Duty Vehicles

30 August 2022



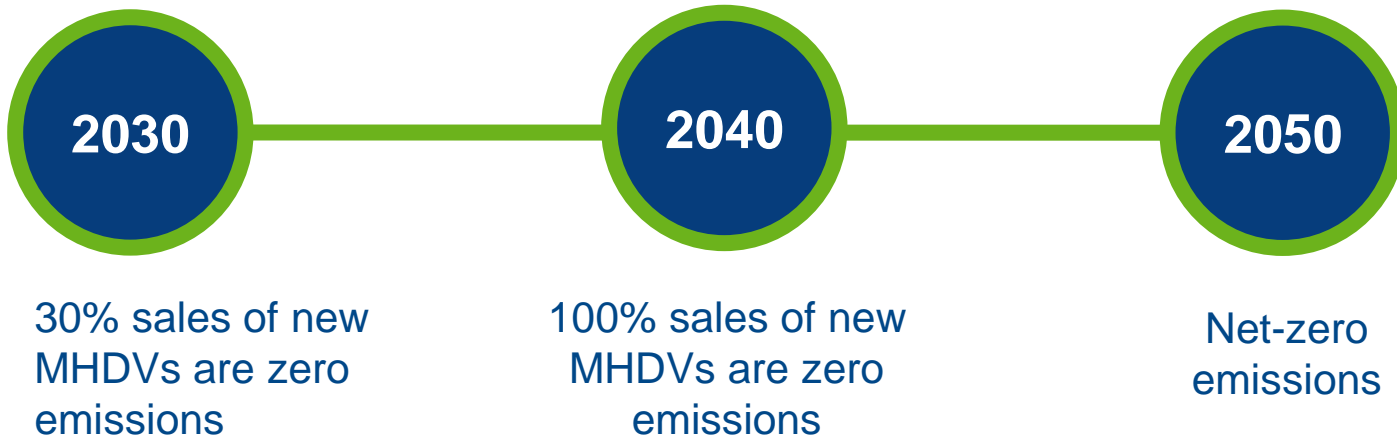
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Global Memorandum of Understanding on Zero Emission (ZE) Medium and Heavy-Duty Vehicles (MHDVs)

**BASELINE
AMBITION
FOR ALL
COUNTRIES**



Under the Global MOU on ZE-MHDVs, leading nations are now working collaboratively to enable 100% zero-emission new truck and bus sales by 2040 with an interim goal of 30% zero-emission vehicle sales by 2030.



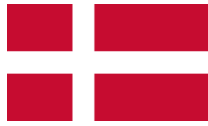
Austria



Canada



Chile



Denmark



Finland



Portugal



Uruguay



Switzerland



Luxembourg



Netherlands



New Zealand



Norway



Scotland



Wales



United Kingdom



Turkey

Mobility transition in EAC member states

- Rapidly growing population and vehicle demand in East Africa
- Opportunities, but also air and noise pollution risks
- With more than 30 automotive producers, East Africa **high potential** for electric mobility

THE CITIZEN

Tanzanian's first locally made electric car unveiled

CleanTechnica

Roam Launches First Electric Mass Transit Bus In Kenya

THE FAST MODE

MTN Rwanda Swaps Out 15% of its Fleet for Electric Vehicles

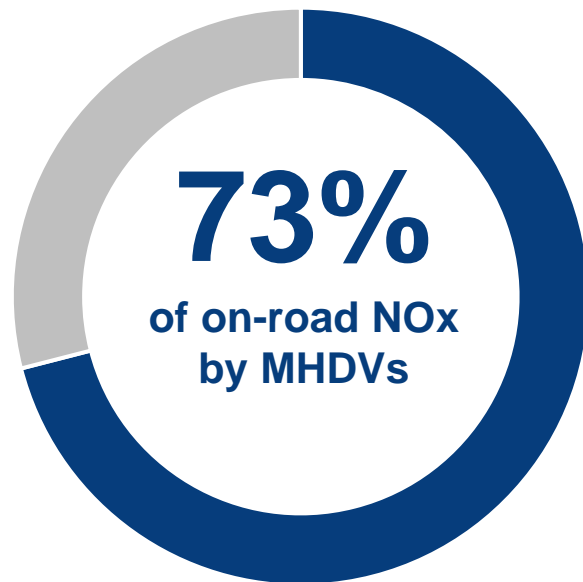
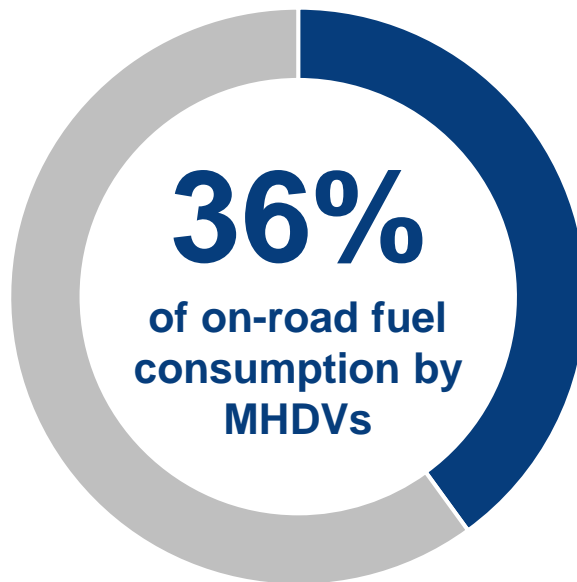
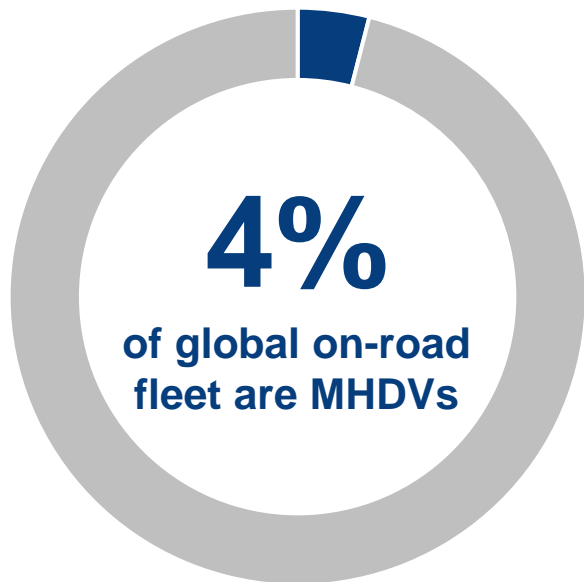
中外对话
China Dialogue

Kenya's electric vehicle market is raring to go

The East African country's emerging EV market is beginning to attract world-leading car companies and local start-ups

From import standards to transport decarbonization

Import standards are an important step towards road transport decarbonization, including Medium and Heavy-Duty Vehicles (MHDV)



Feasibility and technology readiness of ZE-MHDV

- Technology readiness
 - Battery electric vehicles
 - Hydrogen electric vehicles
 - Electric road systems
- Total cost of ownership expected to drop strongly in relation to increasing volumes of vehicles sold

Application	Case	Number of trucks	Charging outlets	Infrastructure cost per truck (thousand)	Vehicle ownership cost versus diesel
Delivery (Class 6, 9.75-13 tons)	Low volume	100	130	\$82	0% to +5%
	Medium volume	1,000	820	\$40	-15% to -10%
	High volume	10,000	6,300	\$27	-25% to -20%
Drayage (Class 7-8, 13+ tons)	Low volume	100	100	\$58	+10% to +25%
	Medium volume	1,000	810	\$38	0% to +5%
	High volume	10,000	7,300	\$28	-15% to -10%
Long haul (Class 8, 16.5+ tons)	Low volume	100	150	\$189	+13% to +18%
	Medium volume	1,000	1,200	\$114	+5% to +10%
	High volume	10,000	9,700	\$71	-5% to 0%

ICCT (2019)

Overcoming barriers to accelerate transport decarbonization

Challenges

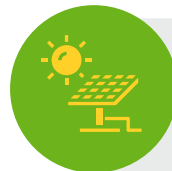


Incorporating charging energy demand in existing power grids and energy supply



High upfront costs for purchase of zero emission trucks and buses

Opportunities



Decentralized local production of renewable energy and battery storage



Rapidly reducing costs, Trucking as a Service and institutional investments

Advantages of transport decarbonization in emerging markets



Reduce greenhouse gas emissions



Reduce deaths from air pollution



Ecosystem of local clean tech jobs



Leverage climate funding



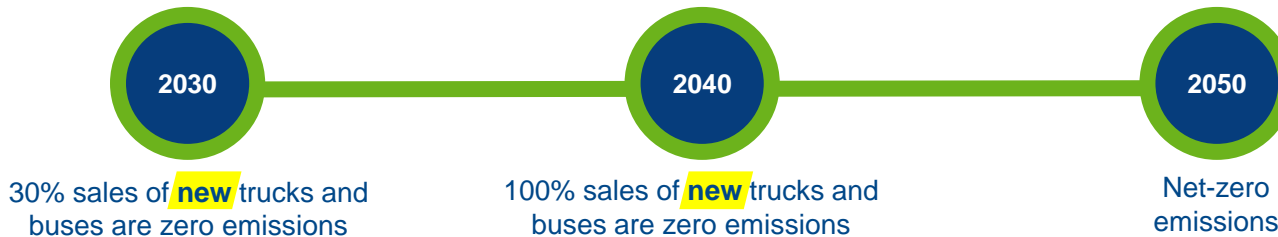
Rapidly reducing cost of ZE-MHDVs



Even deployment across the globe

Invitation to sign the Global MOU on ZE-MHDV

WHAT



WHY



Economic opportunities
Potential to leverage private investment from automotive sector and institutional funding



Global MOU Forum
Knowledge sharing, peer-to-peer learning, network access

WHEN





Over 50 subnational governments and industry stakeholders endorsed the Global MOU ambition, recognizing their critical work to support national governments.



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Thank you!

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