

# MAN hTGX | Small series

The transformation to emission free transport

Medlemsmøte NHF 30.04.2024

Johnny Martinsen  
Produktsjef  
MAN Truck & Bus Norge



- Information based on current state of knowledge. We reserve the right to make technical changes! -

# The optimum drive technology at the right time

**BATTERY  
ELECTRIC DRIVE  
WITH QUICK  
CHARGING**

From  
2024



**HYDROGEN DRIVES**  
as CO<sub>2</sub>-free alternative  
for certain applications

COMBUSTION ENGINE

FUEL CELL

From  
2025



From  
2029+

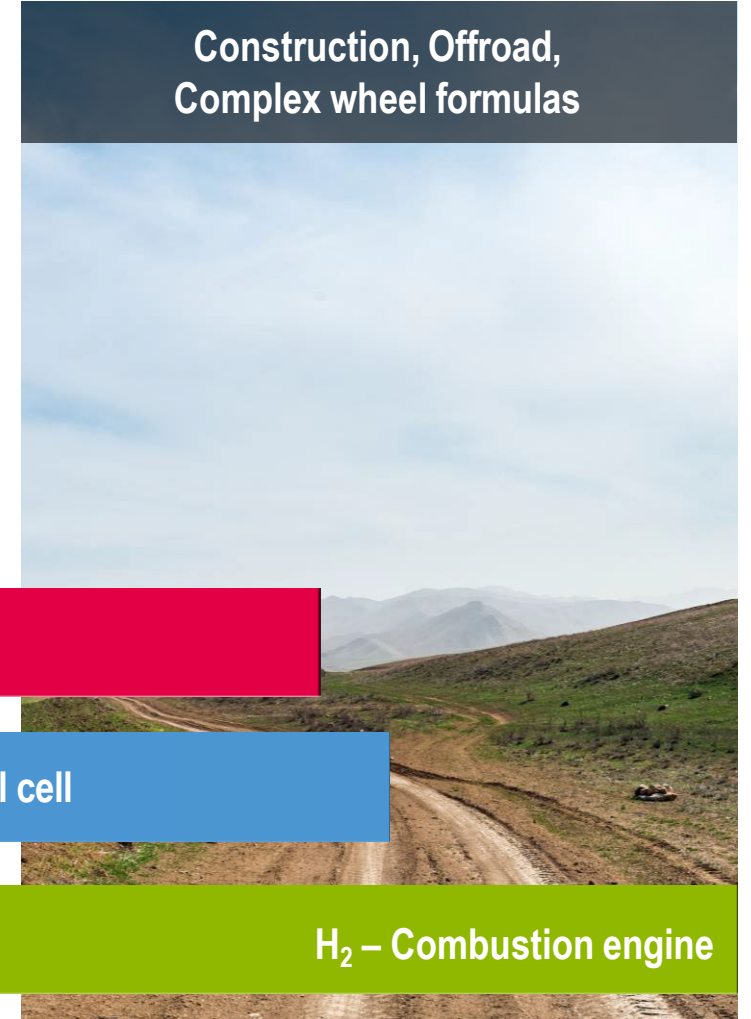


**CONVENTIONAL  
DIESEL DRIVELINE** still  
available as cost-effective  
technology

Transition  
period



# Satisfying segment demand with zero emissions technologies



BEV



H<sub>2</sub> – Combustion engine

# hTGX – Technical Key Facts



- Classified as **ZERO EMISSION VEHICLE (ZEV)** (EU legislation <1g CO<sub>2</sub>/kWh)
- Payload vs Diesel / - 700kg
- ADR possible from 2025+ (plan)
  
- **520hp / 2500Nm** max
- 16,8l in-line 6 cylinder
- **9-12kg/100km\* // 450-550km** range
- No changes to cooling systems and driveline
- Simplified aftertreatment system
  
- **700bar** type IV high-pressure tanks
- **56kg H<sub>2</sub>-storage capacity**
- **Short refueling time** (<15min with 700bar, with future standard ISO 19885-3 even < 10min)
- Passenger car nozzle, H70\_F60\*\*

\* indicative, varies depending on driving profile, environmental conditions, payload, ... \*\* Plan is H70\_F60; replacement by H70\_F90 with higher flow rate under clarification

# Small Series with three different tractor types



	<b>TGX 28t 6x2=2 LL-SA</b>	<b>TGX 33t 6x4 BL-SA</b>	<b>TGX 28t 6x2-4 BL-SA</b>
Availability planned (from)	Q2.2025	Q4.2025	Q3.2025
Segment	Tractor Northland	Tractor	Tractor
Suspension	LL, trailing axle liftable	BL	BL, trailing axle liftable
Height	Normal	Normal	Normal
Cab	GX	GM	GM
Engine	MAN H4576		
Emission Standard	Zero Emission (EU VII)		
Power / torque	383 kW (520 HP) / 2.500 Nm		
Transmission	12 Speed – ZF ASTRONIC		
Wheelbase / overhang	3600 + 1350 mm / 750mm	3600+1350 mm / 750 mm	3600 + 1350 mm / 750mm
Fifth wheel height	> 1090 mm	> 1090 mm	> 1090 mm
Gross vehicle weight (technical)	28t	33t	28t
Gross combination weight (technical)	>= 50t *	>= 50t *	>= 50t *
Fifth wheel load / payload (vehicle)	17t @ 28t GVW	Tbd – slightly below 6x2=2 due to 2nd driven axle	Tbd – comparable to 6x2=2
Curb weight	Ca. 10.900kg		

\* final max. value under verification

# hTGX – small series from 2025 in selected countries



## Regional scope



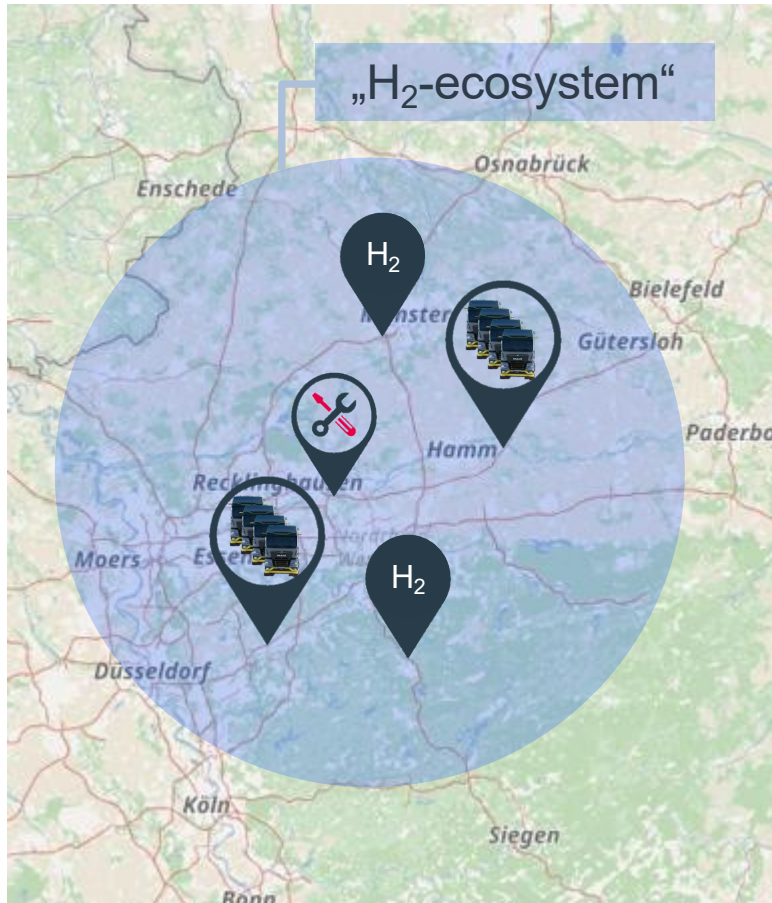
## Application scope



- Available from **2025**
- **100% MAN product**, the hTGX is based on the proven TG vehicle series and uses MAN engine technology from the Nuremberg site
- **200 - 300 units** planned for Norway, The Netherlands, Iceland, Germany and selected countries outside Europe
- hTGX as **supplement** to electric trucks, especially on very long journeys, special applications or in regions without sufficient charging infrastructure
- Designed for very **flexible and demanding transport applications** such as transport of heavy goods
- Also suitable for **extreme climate conditions** and **very demanding topography**

# An H<sub>2</sub>-ecosystem is prerequisite to sell and operate H<sub>2</sub>-ICE trucks

Purely exemplary



Source: Openstreetmap

## H<sub>2</sub>-Ecosystem requirements:



H<sub>2</sub> enabled MAN Service station(s)



H<sub>2</sub> refueling station(s)



Customer location(s) with a total of ~20 H<sub>2</sub>-trucks per ecosystem

## Why?

- Service stations need to be enabled for Hydrogen (investment, training, ...)
- The trucks must only be operated in areas / corridors of the ecosystems aligned with MAN to ensure the necessary service coverage; deviations from those corridors only after alignment with MAN
- Hydrogen refueling stations need to sell a certain minimum amount of H<sub>2</sub> (e.g. in case subsidies are granted / to operate economically)

➔ Guiding volume are ~20 units either per customer group or per H<sub>2</sub>-initiative within an ecosystem