

LEADING TODAY READY FOR THE FUTURE

ADDRESSING THE ENVIRONMENTAL CHALLENGE

Phil Moon

Marketing Manager



ENVIRONMENTAL CHALLENGES

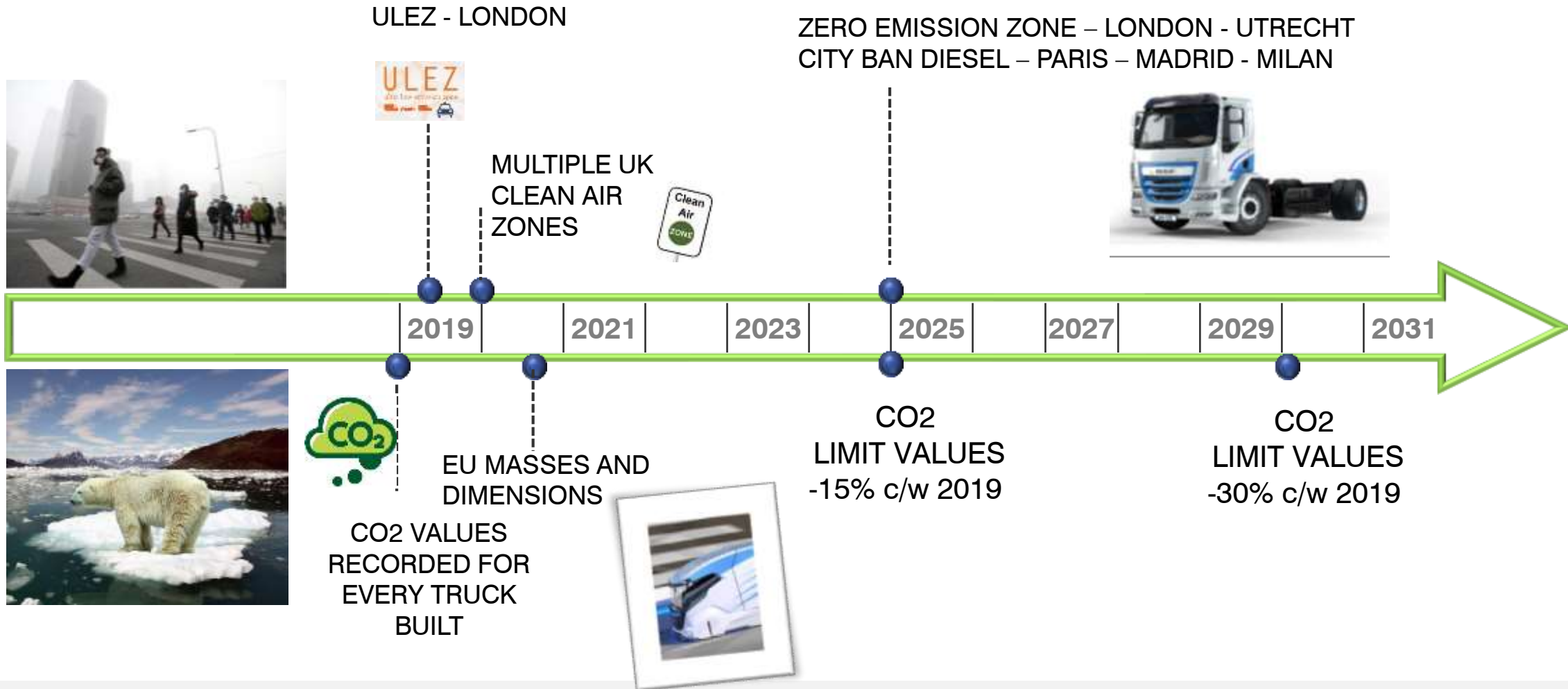
GLOBAL WARMING
GHG emissions: CO₂, CH₄



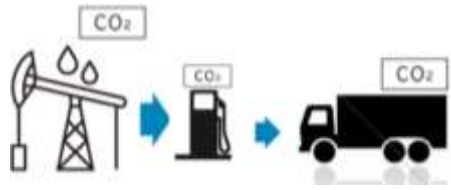
LOCAL AIR QUALITY
Tailpipe emissions: NO_x, PM



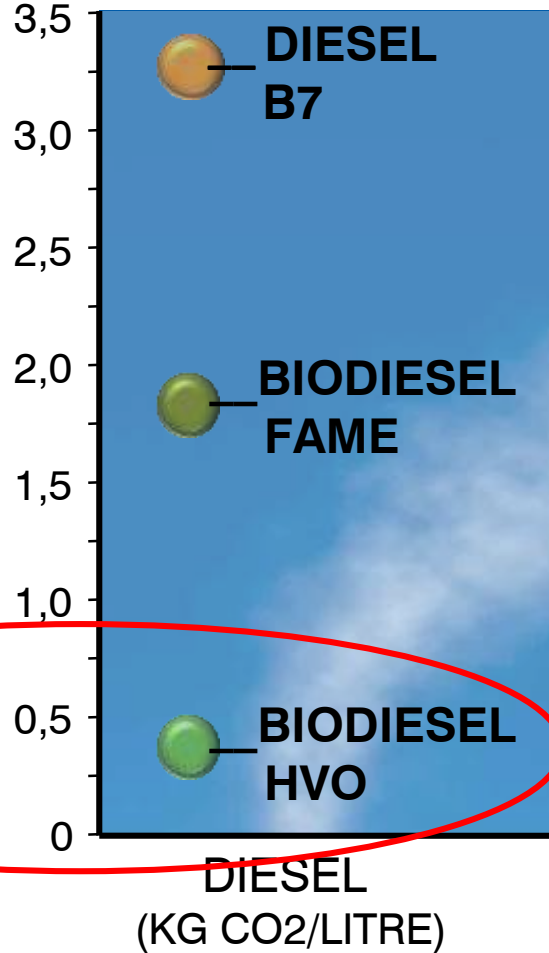
REGULATORY TIMELINE...



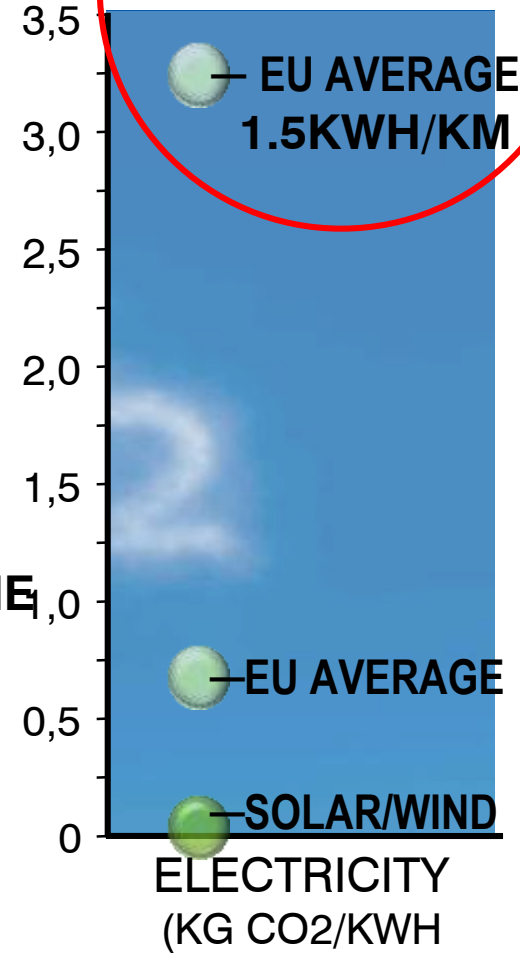
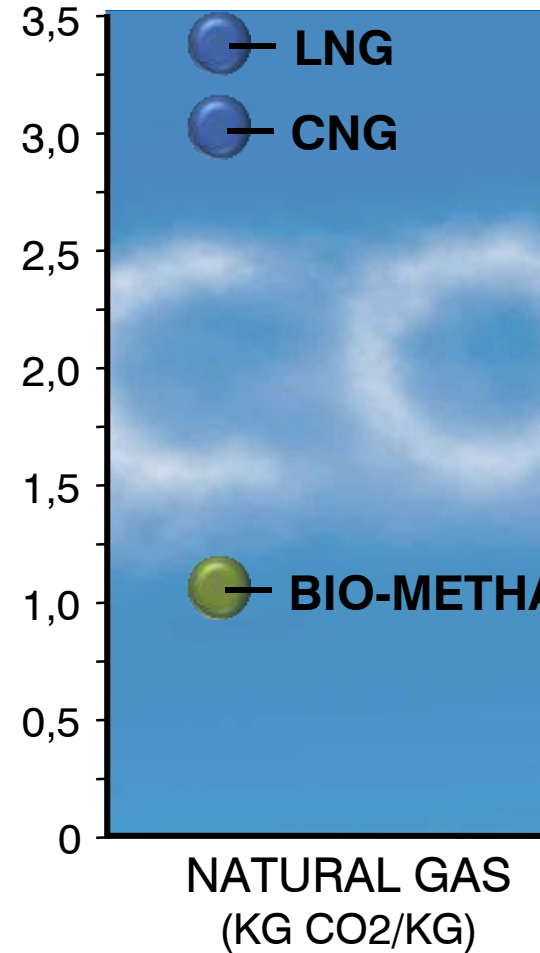
ALTERNATIVE FUELS TO REDUCE CO2



WELL-TO-WHEEL



Highest potential



In comparison with diesel

EU AVERAGE
1.5KWH/KM

Source: CO2emission-factors according EN16258.

PARAFFINIC 'DROP IN' FUELS



- HVO & GTL – reduce NOX & PM
- HVO cuts CO₂ by up to 90%

PARAFFINIC FUELS - HVO

- Air quality – almost no sulphur, aromatics or oxygen
- HVO is sustainable - up to 90% carbon saving
- Easy to distribute – no special pipes or tanks
- Compatible with all engines – no special maintenance
- Stability – no special storage requirements
- Temperature tolerance – as EN590
- 100% drop-in fuel – can be blended with EN590
- Odourless & biodegradable
- Growth in supply of HVO

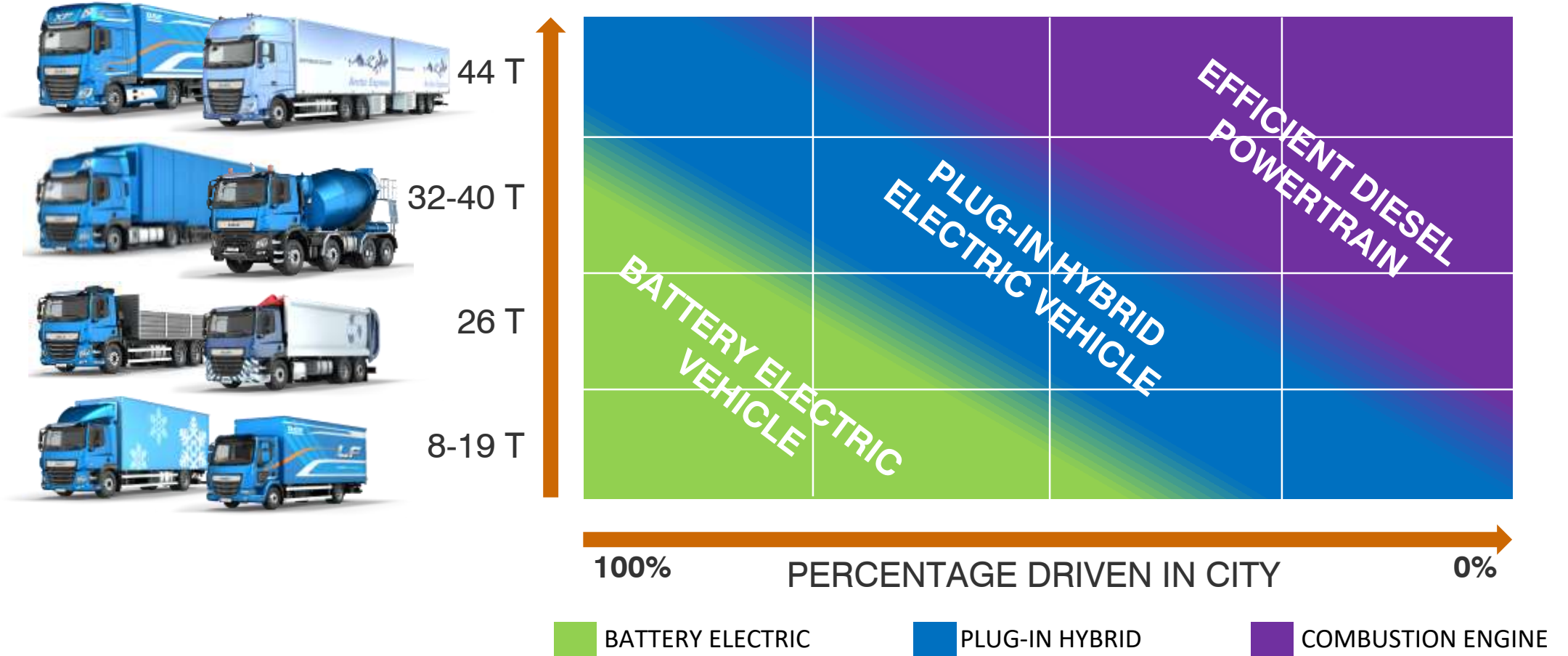
- Lower density than EN590, lower energy per litre
- Price premium



DOES ONE SIZE FIT ALL ?



DAF SUSTAINABLE TRANSPORT SOLUTIONS



DAF INNOVATION TRUCKS

LF ELECTRIC FA 19 Tonne

E-engine 195 kW (peak 250 kW)

Battery pack 220 kWh

Zero E-range ~ 200 km

CF ELECTRIC FT 37 Tonne

E-engine 210 kW

Battery pack 170 kWh

Zero E-range ~ 100 km

CF HYBRID FT MX-11 40 Tonne

E-engine 75 kW (peak 130 kW) / Battery pack 85 kWh / E-range ~ 40 km





DAF
A PACCAR COMPANY

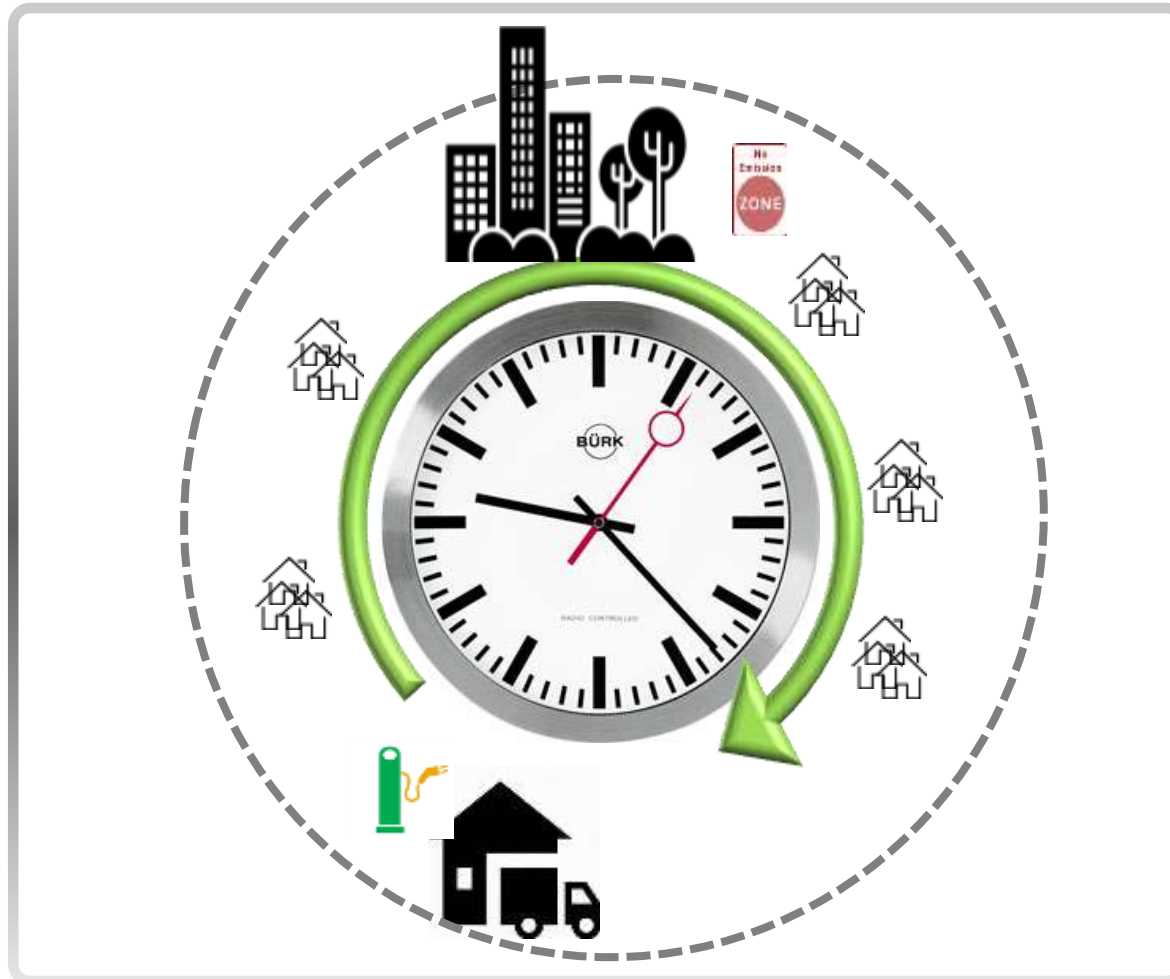
LF
ELECTRIC

DRIVING ZERO EMISSIONS IN CITY DISTRIBUTION

ELECTRIC

DAF

LF ELECTRIC - CITY DISTRIBUTION



LF FA 19T Field Trial

- City distribution
- Electric Range ~ 200 km
- E-engine 195 kW (peak 250 kW)
- Battery pack 220 kWh
- On board (AC) and off board (DC) charging

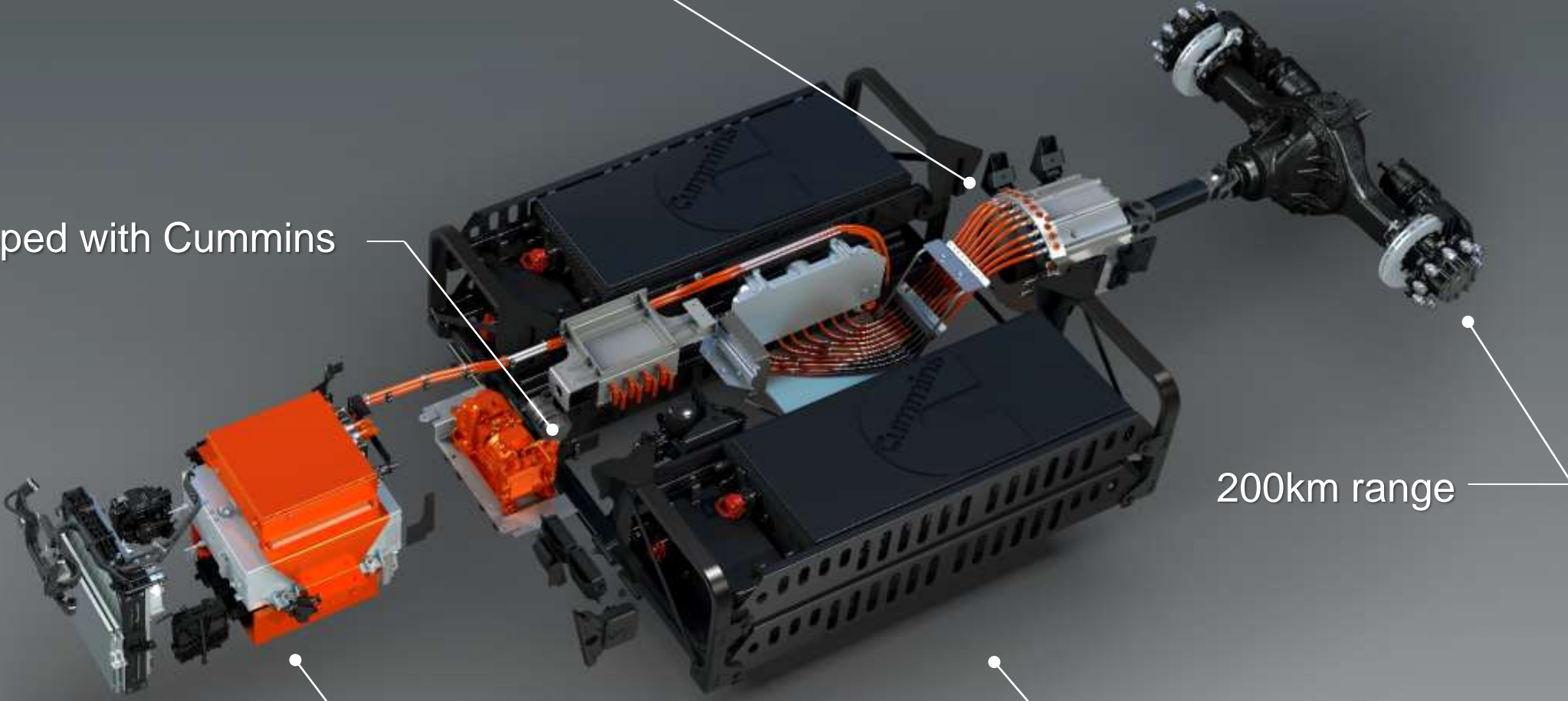
250 kW / 340 hp electric motor

Developed with Cummins

200km range

Electrified Ancillaries

220kWh High Voltage Batteries



UNLADEN WEIGHTS



	Front Axle (kg)	Rear Axle (kg)	Total (kg)
Diesel Chassis-Cab (no fuel)	3420	1880	5300
Electric Vehicle	4070	2730	6800
Differential	+650	+850	+1500
Maximum Design Weight	7500	13000	19000

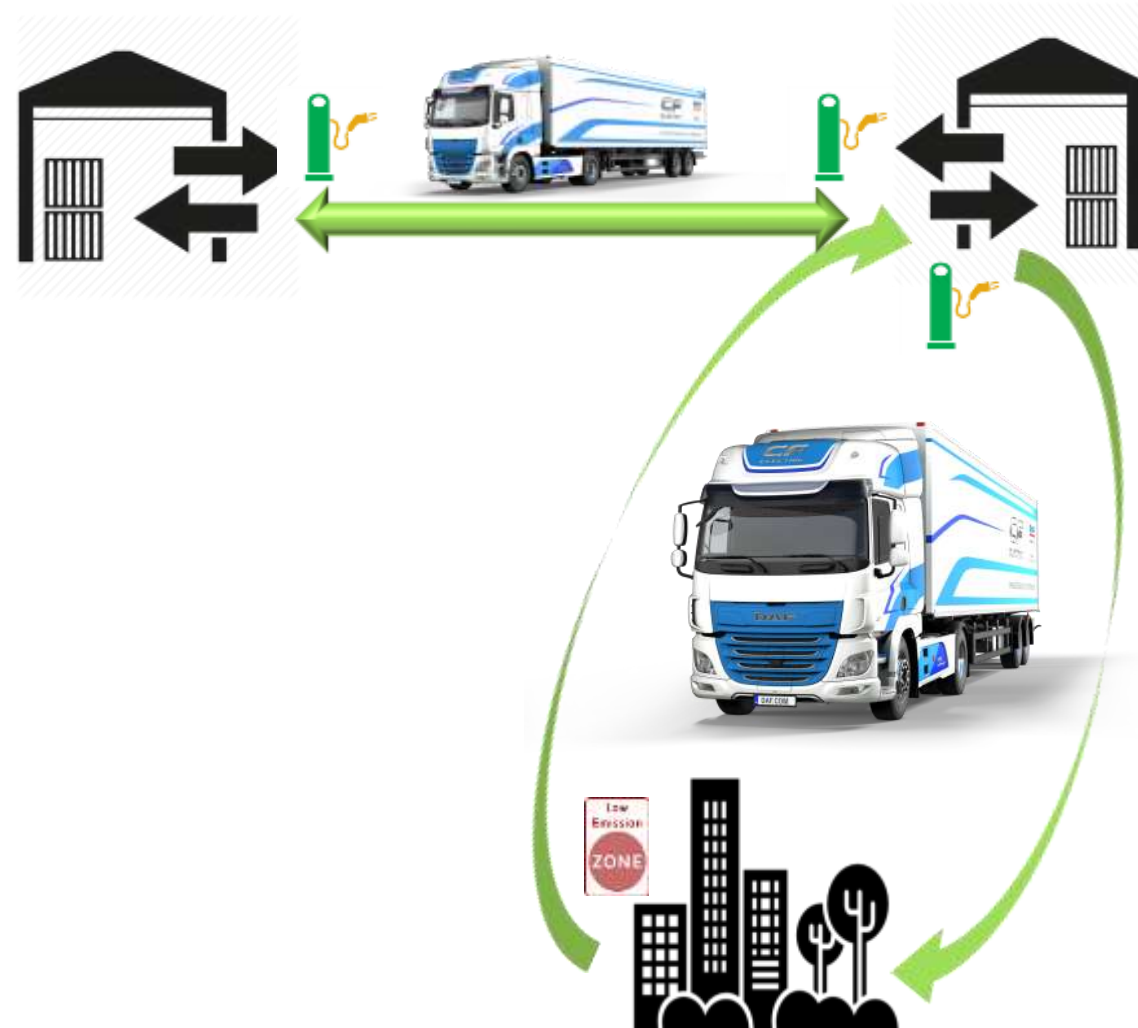


CF ELECTRIC – HIGH VOLUME CITY DISTRIBUTION



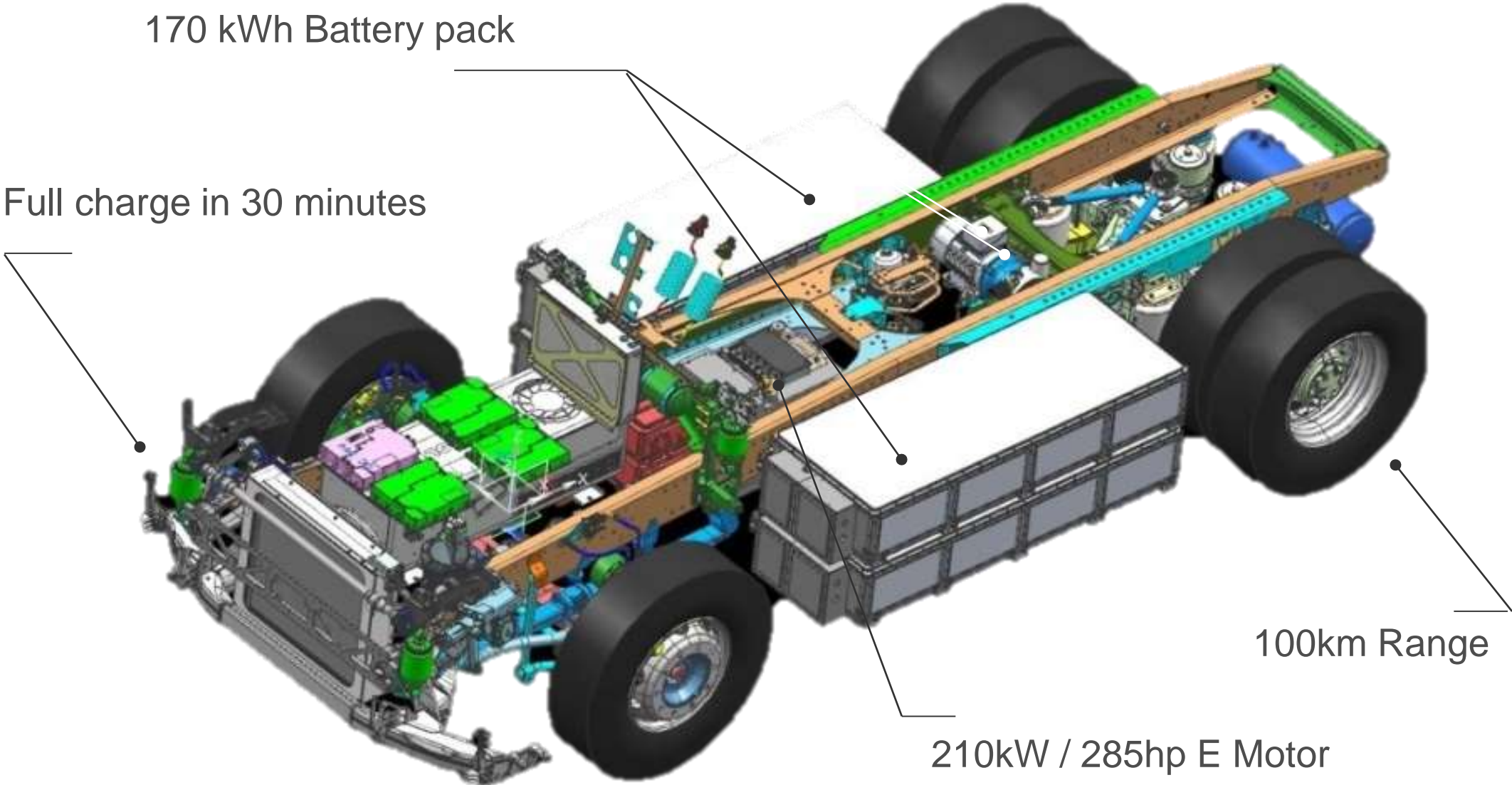
CF FT 37T VDL e-power

- High volume city distribution & shuttle
- Electric range ~100 km
- E-engine 210 kW (Peak 240 kW)
- Battery pack 170 kWh
- Charging during the operation (Quick off-board charging (DC130kW))



170 kWh Battery pack

Full charge in 30 minutes



100km Range

210kW / 285hp E Motor

Delivering 2000Nm torque

UNLADEN WEIGHT



	Front Axle (kg)	Rear Axle (kg)	Total (kg)
Diesel Chassis-Cab (430 litres fuel)	4950	2250	7200
Electric Vehicle	5360	4140	9500
Differential	+410	+1900	+2310
Maximum Design Weight	8000	11500	19500



CF HYBRID – REGIONAL DISTRIBUTION



CF FT 40T PHEV

- High volume city distribution
- Electric range 30-50 km
- Unlimited diesel range
- E-engine 75 kW (Peak 130 kW)
- Battery pack 85 kWh
- Charging whilst driving or plug-in (DC 130kW)



430 Litre Fuel Tank

EAS 3

PACCAR MX11 Engine

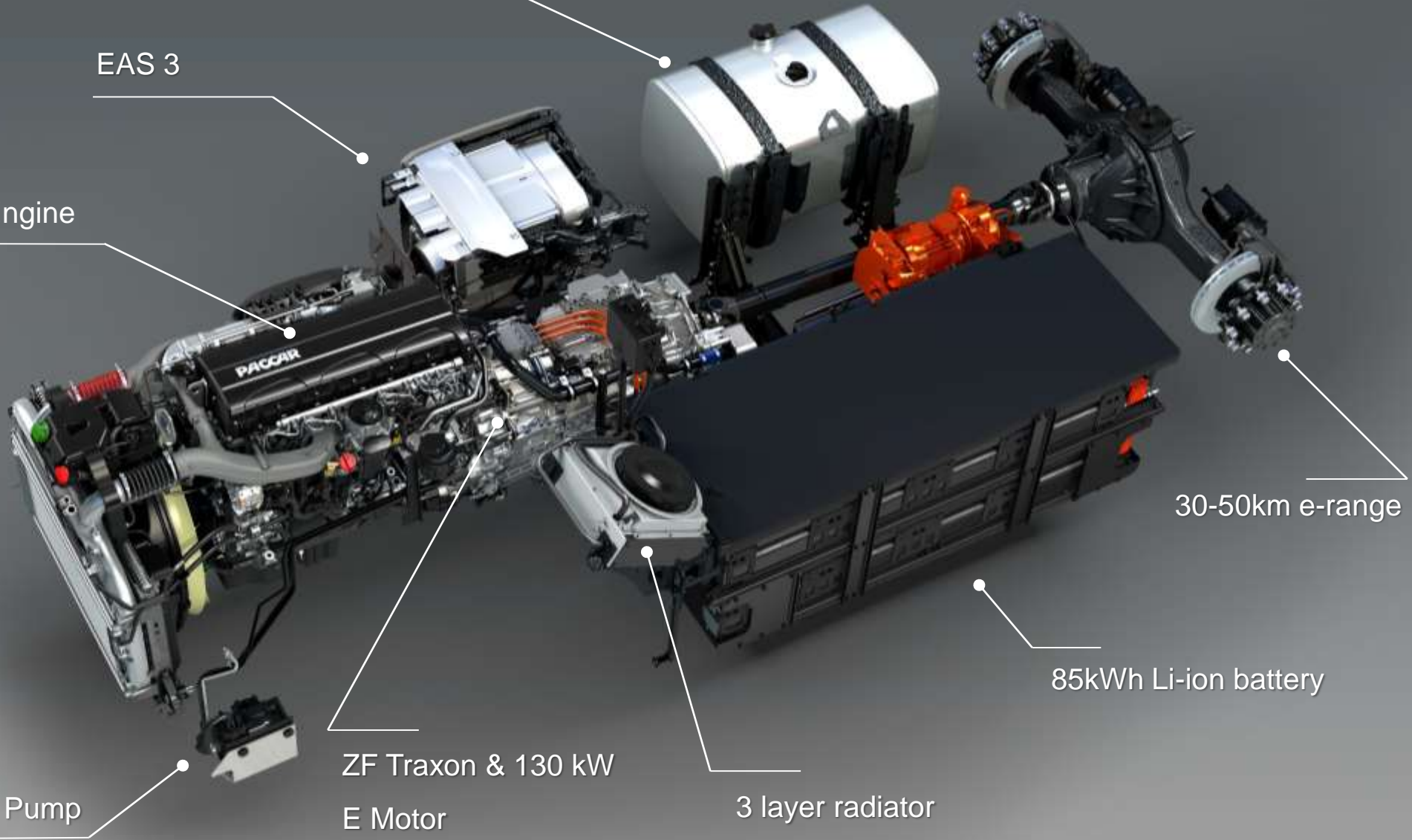
30-50km e-range

85kWh Li-ion battery

ZF Traxon & 130 kW
E Motor

3 layer radiator

E-steering Pump



UNLADEN WEIGHT



	Front Axle (kg)	Rear Axle (kg)	Total (kg)
Diesel Chassis-Cab (430 litres fuel)	4940	2280	7220
Hybrid Vehicle	5920	3360	9280
Differential	980	1080	2060
Maximum Design Weight	8000	11500	19500

DAF SUSTAINABLE TRANSPORT SOLUTIONS



**BEST PERFORMANCE
ON FUEL, HVO FOR
LOW CO2 FOOTPRINT**

**EFFICIENT AND
PHEV FOR LAST MILE
ZERO EMISSION**

**BEV ZERO EMISSION WITH
BALANCED BATTERY-PACK
on: £ vs KG vs KM**



DAF

A close-up photograph of the front grille of a blue DAF truck. The word "DAF" is embossed in a bold, sans-serif font on a silver-colored metallic plate. The truck's body is painted a vibrant blue, and a portion of a black grille with a honeycomb pattern is visible at the bottom.