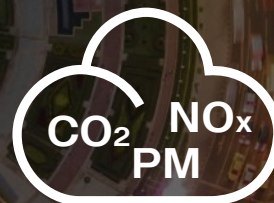




ENVIRONMENTAL CONCERNS

FOR SUSTAINABLE URBAN TRANSPORT



SCANIA



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Main drivers of sustainable transport

Congestion



Pollution



Energy security



Climate change





Our way of making it happen

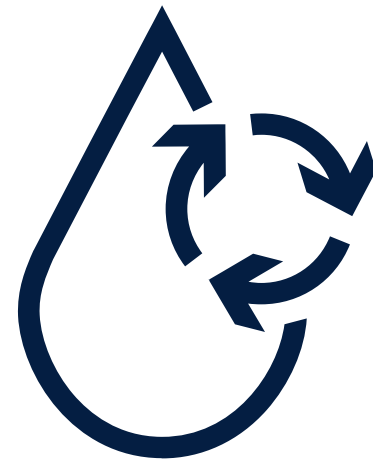




Our three pillars



Energy efficiency



Alternative fuels
and electrification



Smart and safe
transport



Three prerequisites for commercial alternative fuels

Climate
impact of the
fuel

Availability

Cost

The broadest range of trucks and buses for renewable fuels

Compressed
gas
-90%

Liquefied
gas
-90%

HVO
-90%

Biodiesel
-66%

Ethanol
-90%

Hybrid
-92%

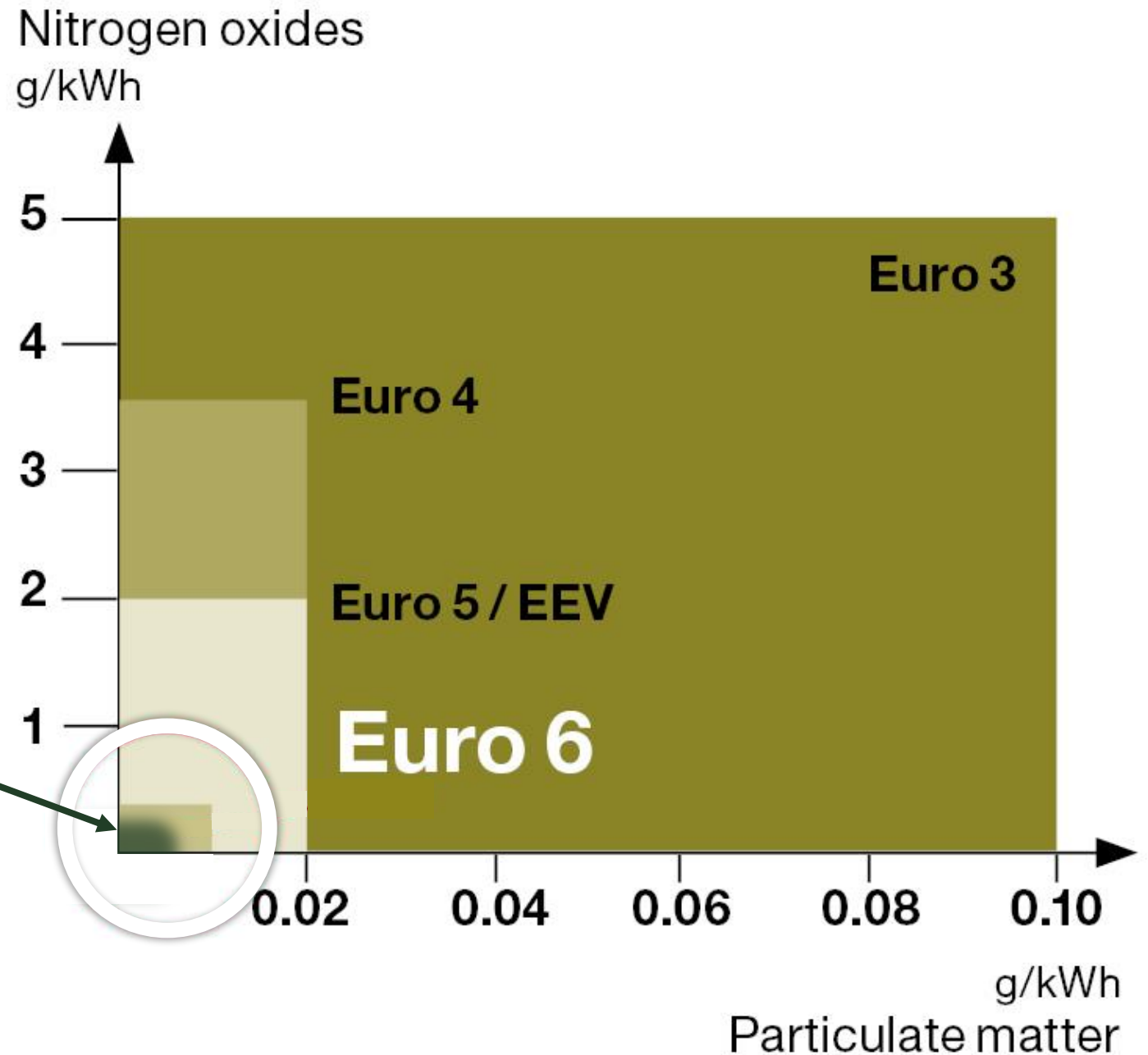
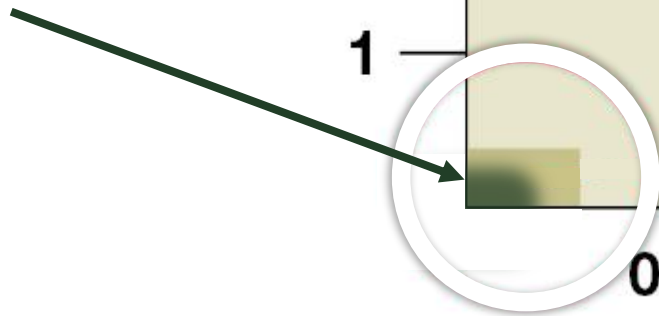


* The numbers presented is the current maximum CO₂- reduction potential per fuel per MJ



NOx reduction

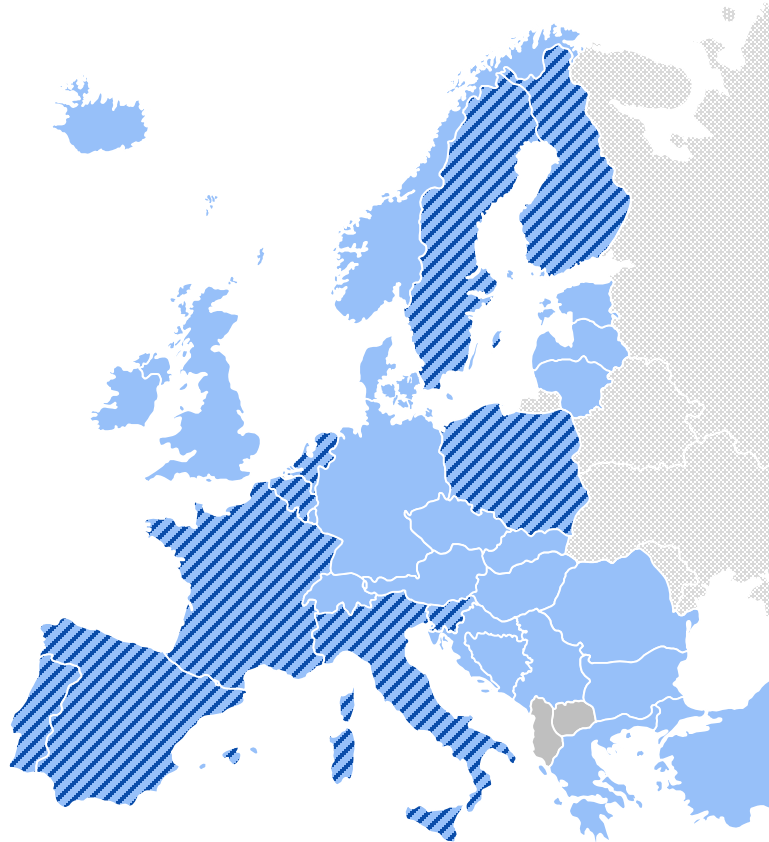
HVO
Diesel
Ethanol
Biodiesel FAME





Availability of commercial alternative fuels

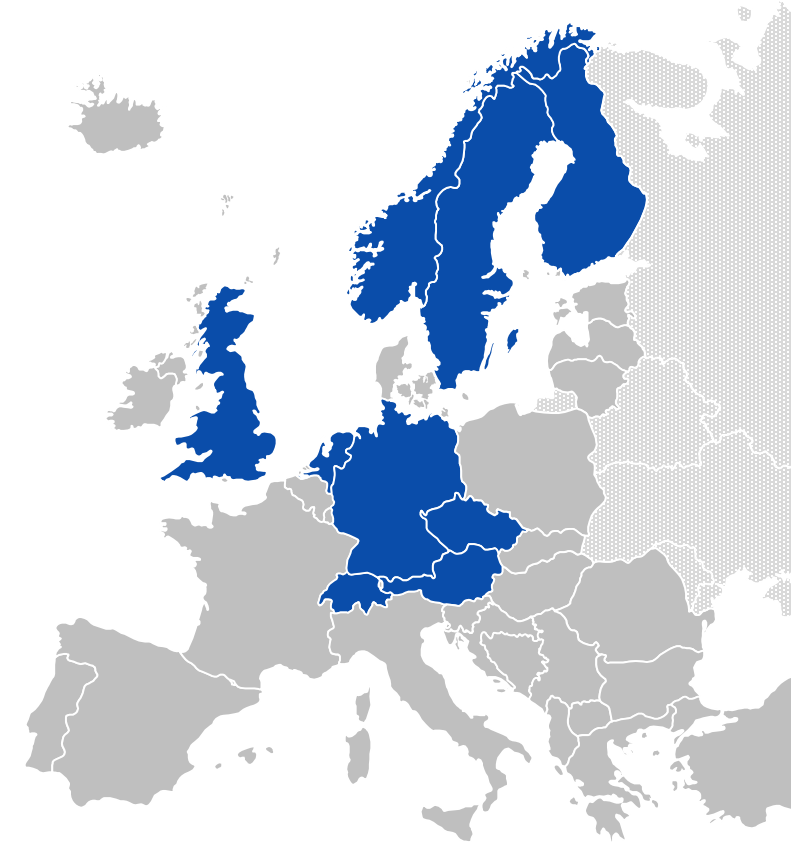
- CNG gas
- ▨ CNG and LNG gas



- Ethanol

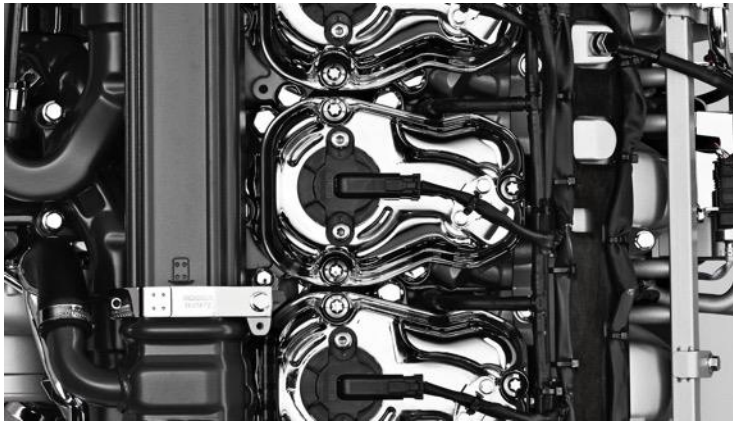


- HVO and/or FAME

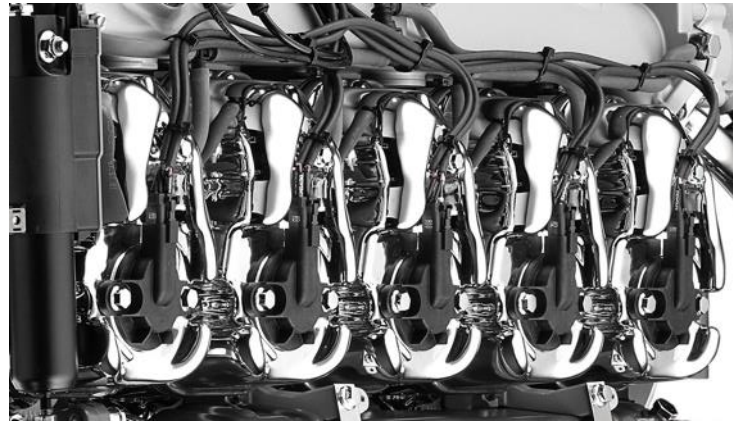




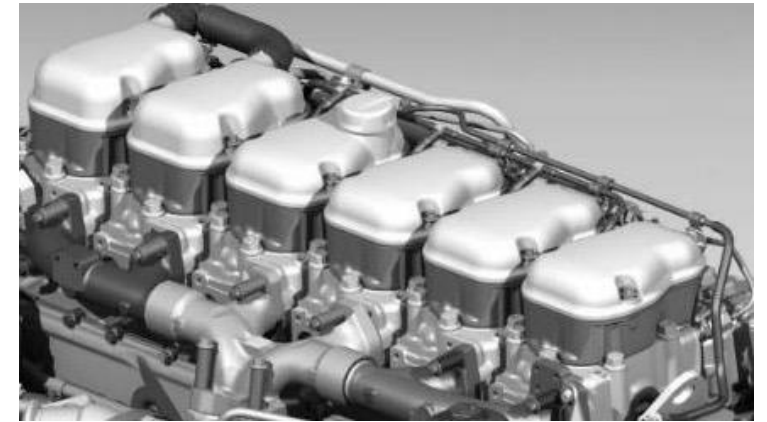
Product NEWS – alternative fuels



New 13-litre gas engine



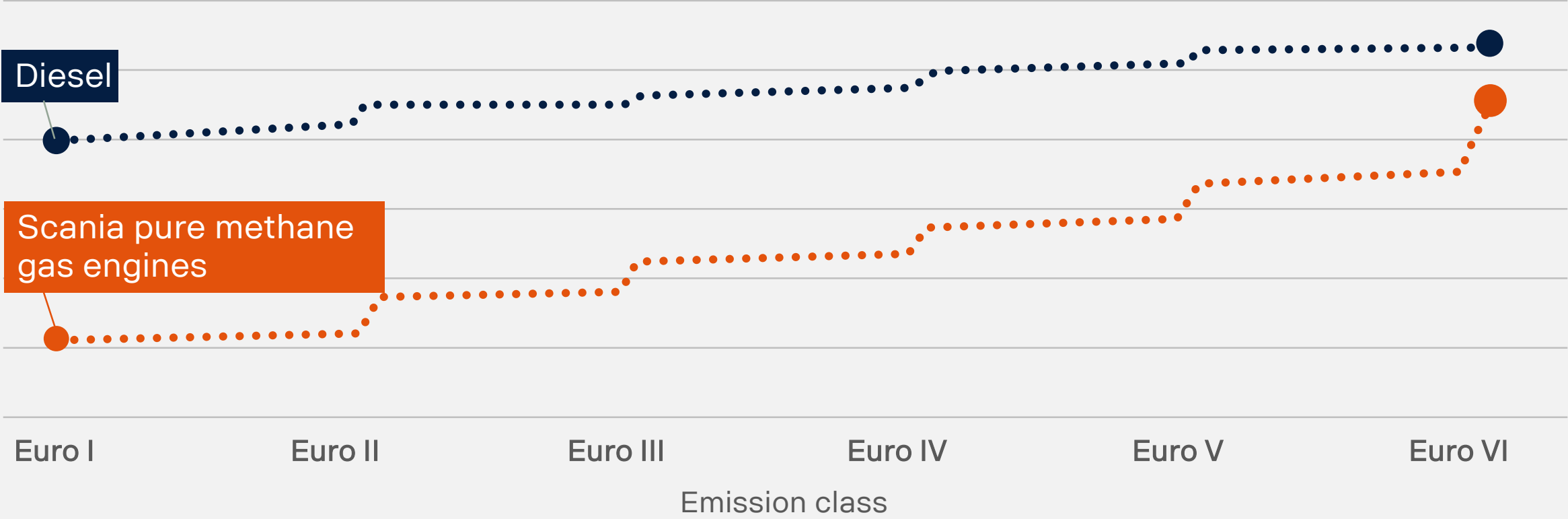
Updated 9-litre gas engines



New 13-litre ethanol engine
for ED95

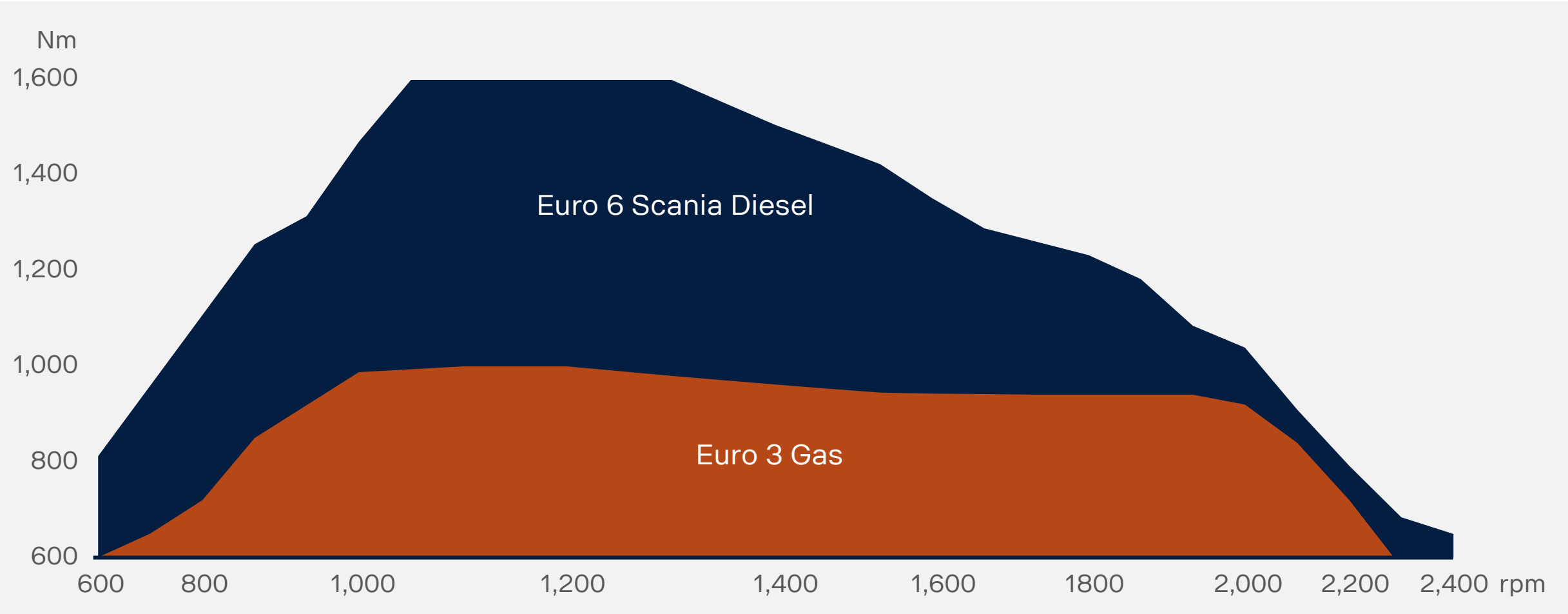
Paradigm shift – Scania Gas Engines

Fuel efficiency



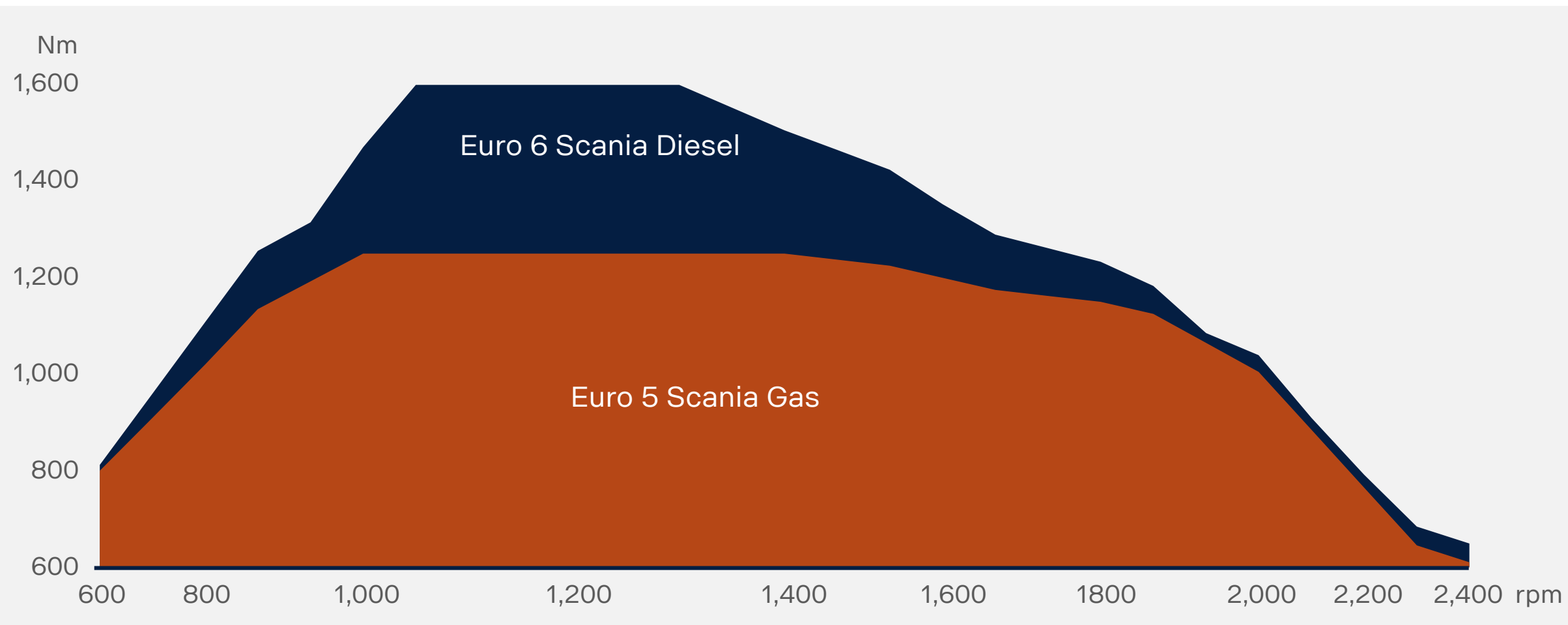
Paradigm shift – Scania Gas Engines

Power development



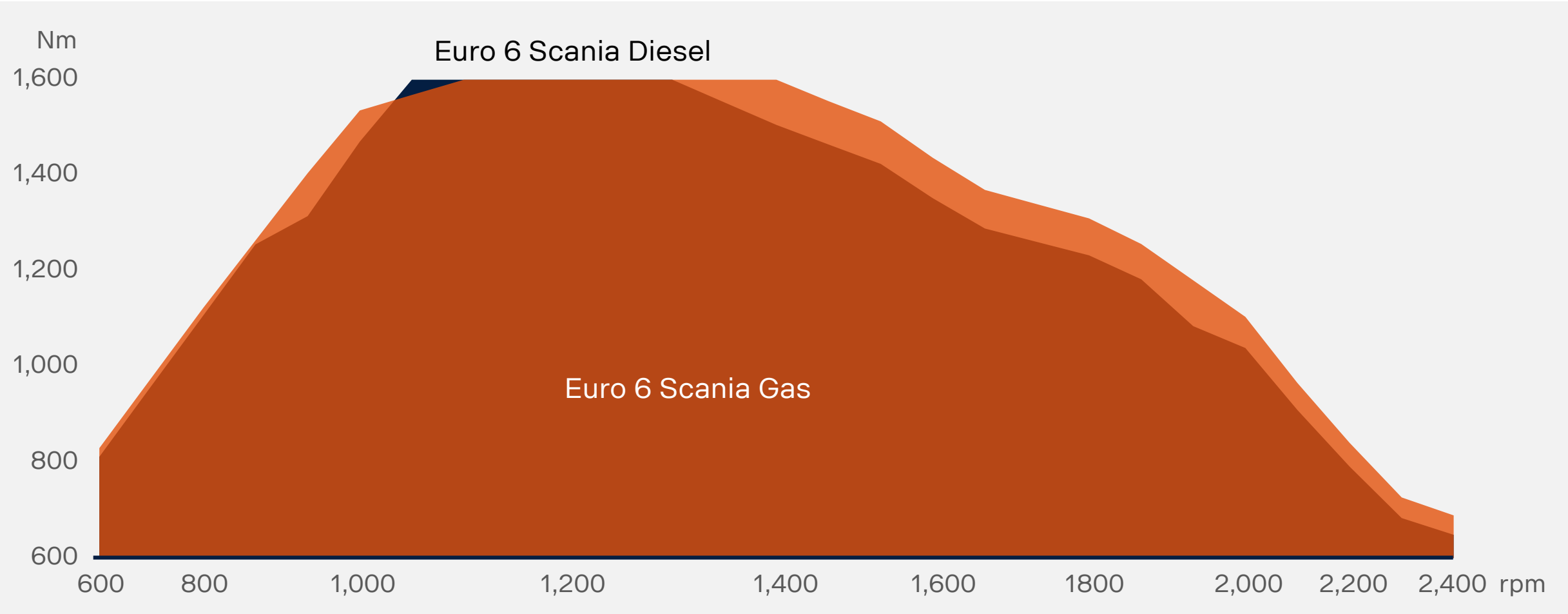
Paradigm shift – Scania Gas Engines

Power development



Paradigm shift – Scania Gas Engines

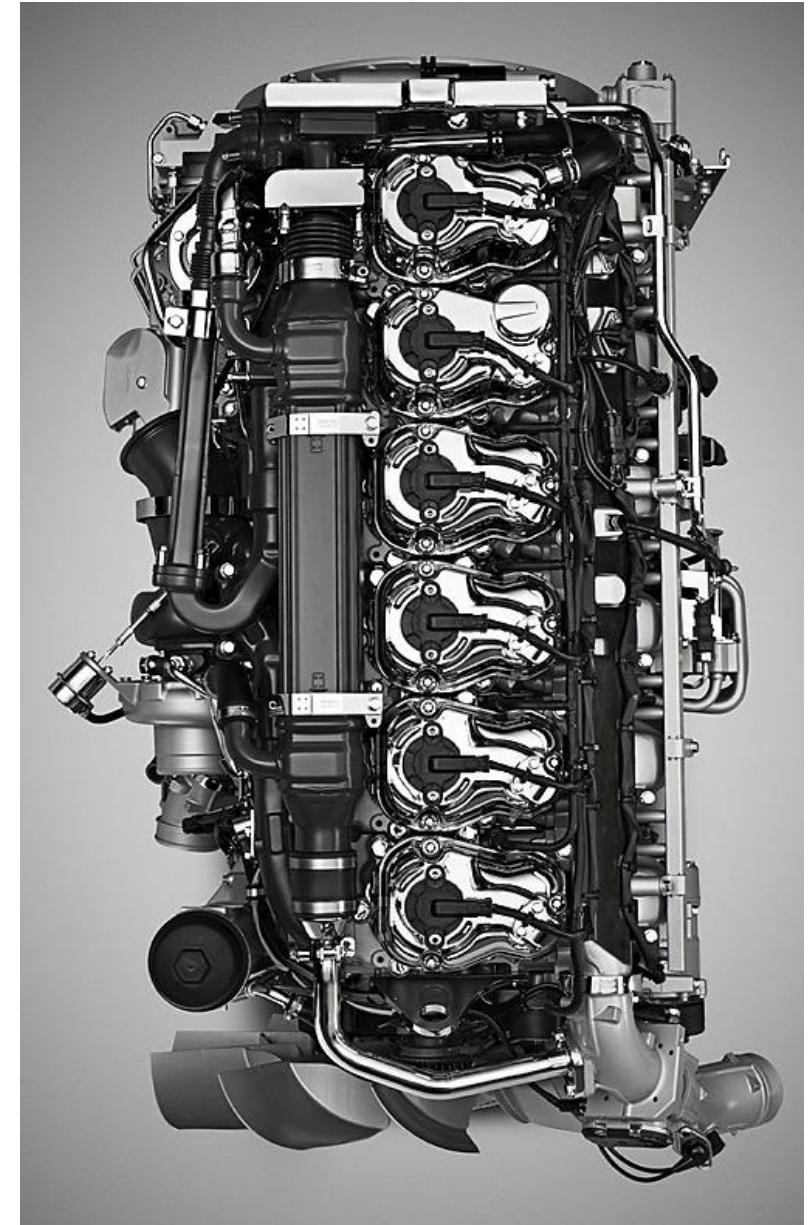
Power development





Scania 13-litre gas engine

- For Regional, Long-distance and Construction operation
- Scania Opticruise
- Supports PIEK certification of no more than 72 dB(A)
- Heavy-duty compliant
- 410 hp - 2,000 Nm
- Spark plug and oil service interval 45,000 km
- G and R-series cabs



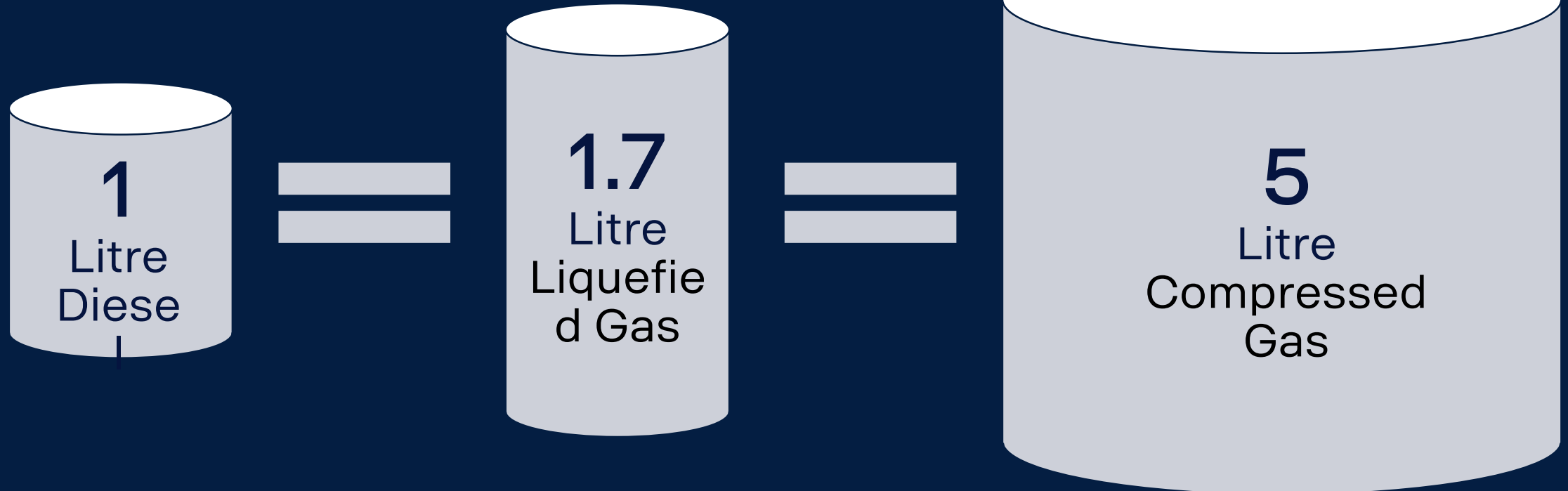


Updated 9-litre gas engines

- For Urban, Regional and Construction operation
- Supports PIEK certification of no more than 72 dB(A)
- Redesigned air intake
- Refined EGR increase engine “breathing” and prevents knocking
- Heavy-duty compliant
- Spark plug and oil service interval 45,000 km
- 280 hp - 1,350 Nm or 340 hp - 1,600 Nm
- L, P and G-series cabs



Two ways of storing methane gas



Ethanol, world's largest biofuel



Production split (Energy)



Great CO₂ reduction potential



Great CO₂ reduction potential

Up to
90%
reduction



Ethanol in a diesel engine

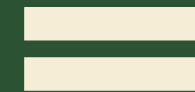


Energy
efficient

Low
emissions



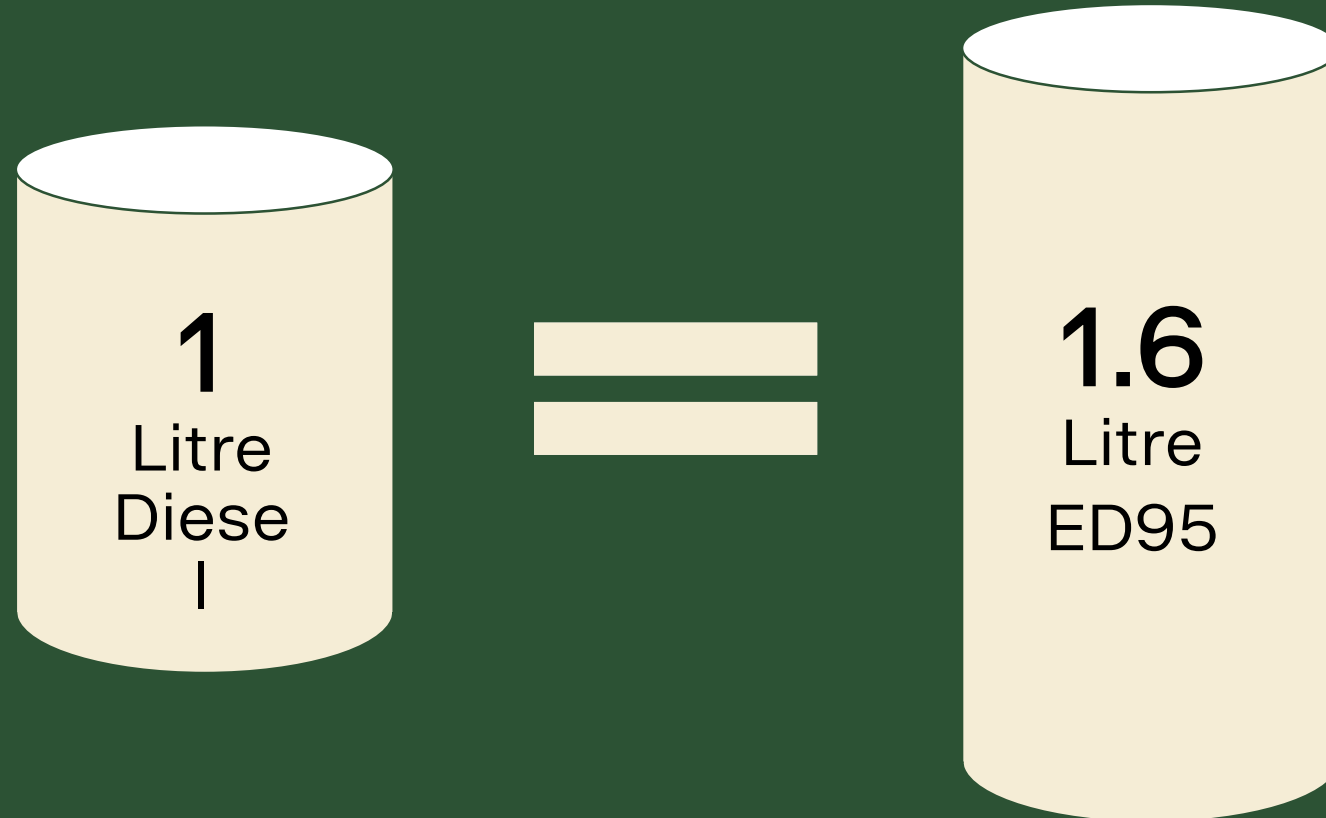
Ignition improver
for
proper combustion



ED95 fuel

ED95 energy content

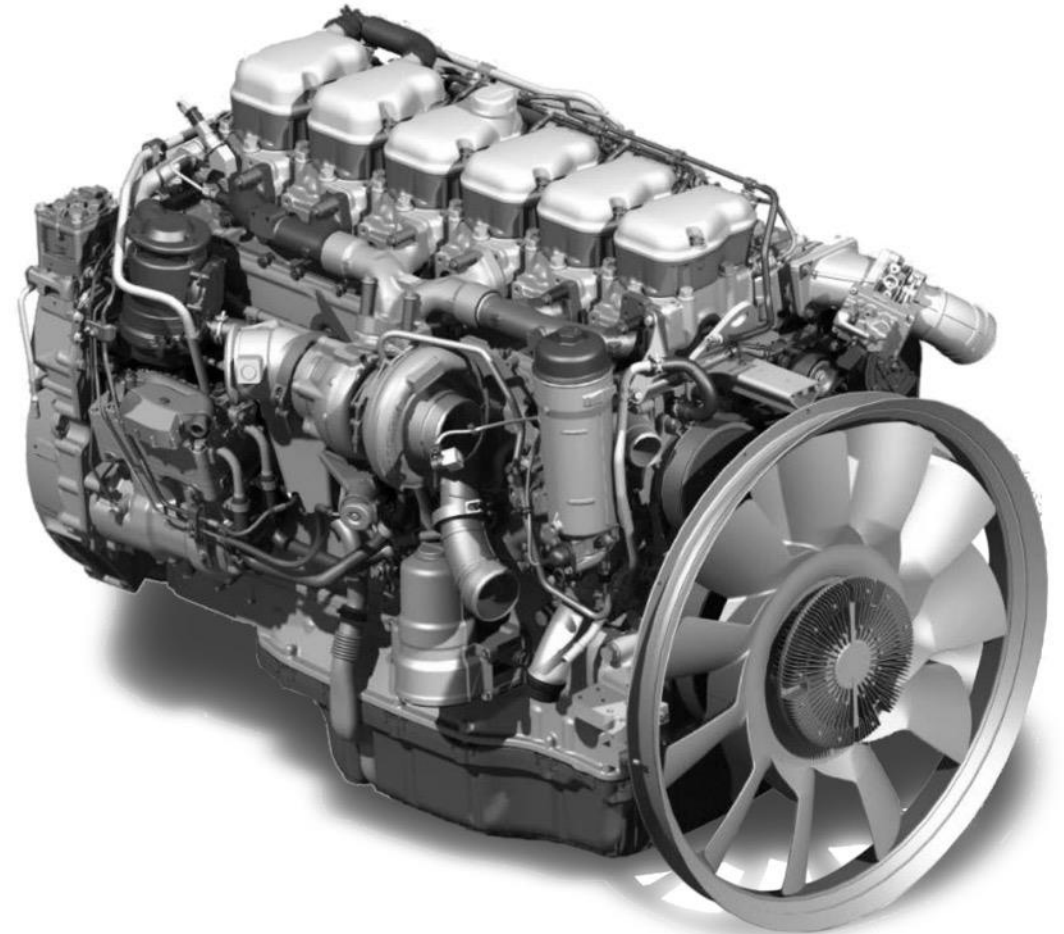
- Gas
- Bio-diesel
- HVO
- Ethanol





New 13-litre ethanol engine

- For Regional, Long-distance and Construction operation
- Improved injection precision with XPI common rail architecture
- Lower service cost for XPI engines compared to PDE
- 370 hp +
- Service interval 45,000 km
- G and R-series cabs





Electrification



Hybrid buses



First commercial Euro 6 hybrid truck



E-highway demonstrator

Plug-in hybrid bus pilot

Scania partners in battery development & production

OEM electric powertrain

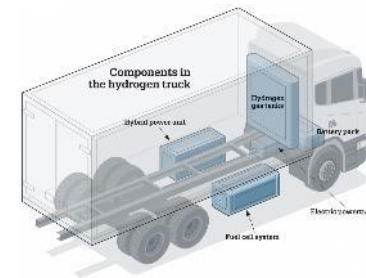
BEV bus pilot
(Battery electric vehicle)



Hybrid trucks

BEV buses

Fuel cell BEV truck demonstrator



BEV trucks

E-highway demonstrator step 2



Key takeaways

- Growing number of restricted environmental zones in cities
- Many customers have tough sustainability targets
- Scania continues to provide the broadest alternative fuel offering in the market and can tailor a solution for your operation





SCANIA