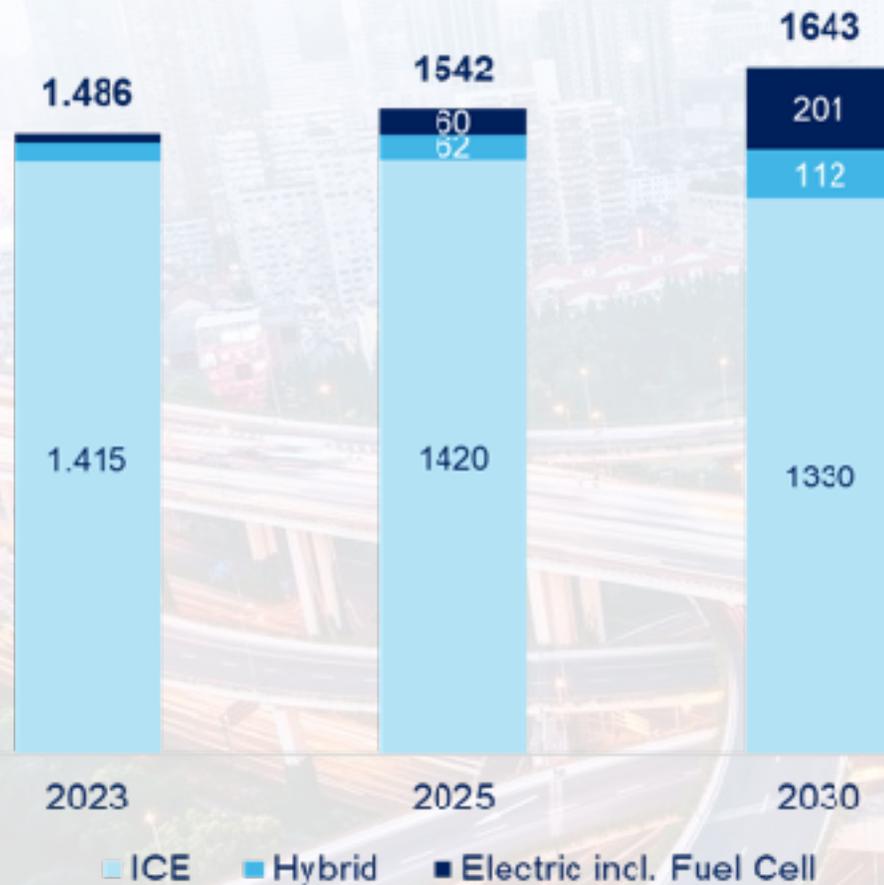
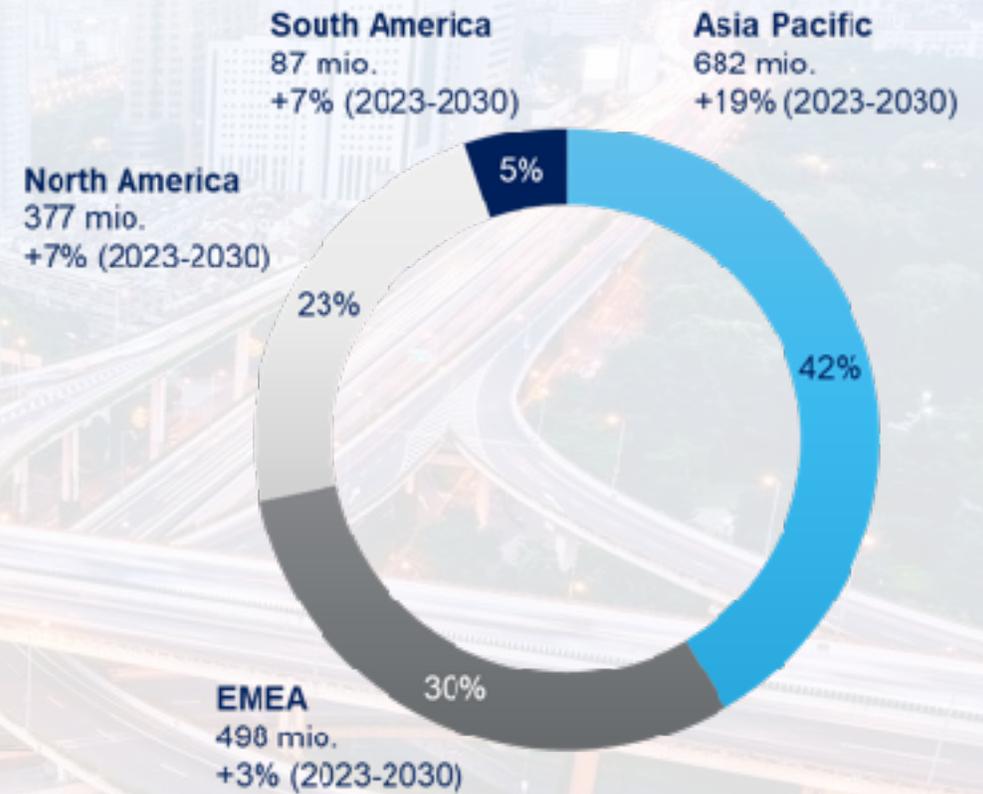


Global Mobility Demand and Vehicle Fleet Will Further Increase...

Global Vehicles in Operation Forecast [in mio. vehicles]



Regional Split 2030

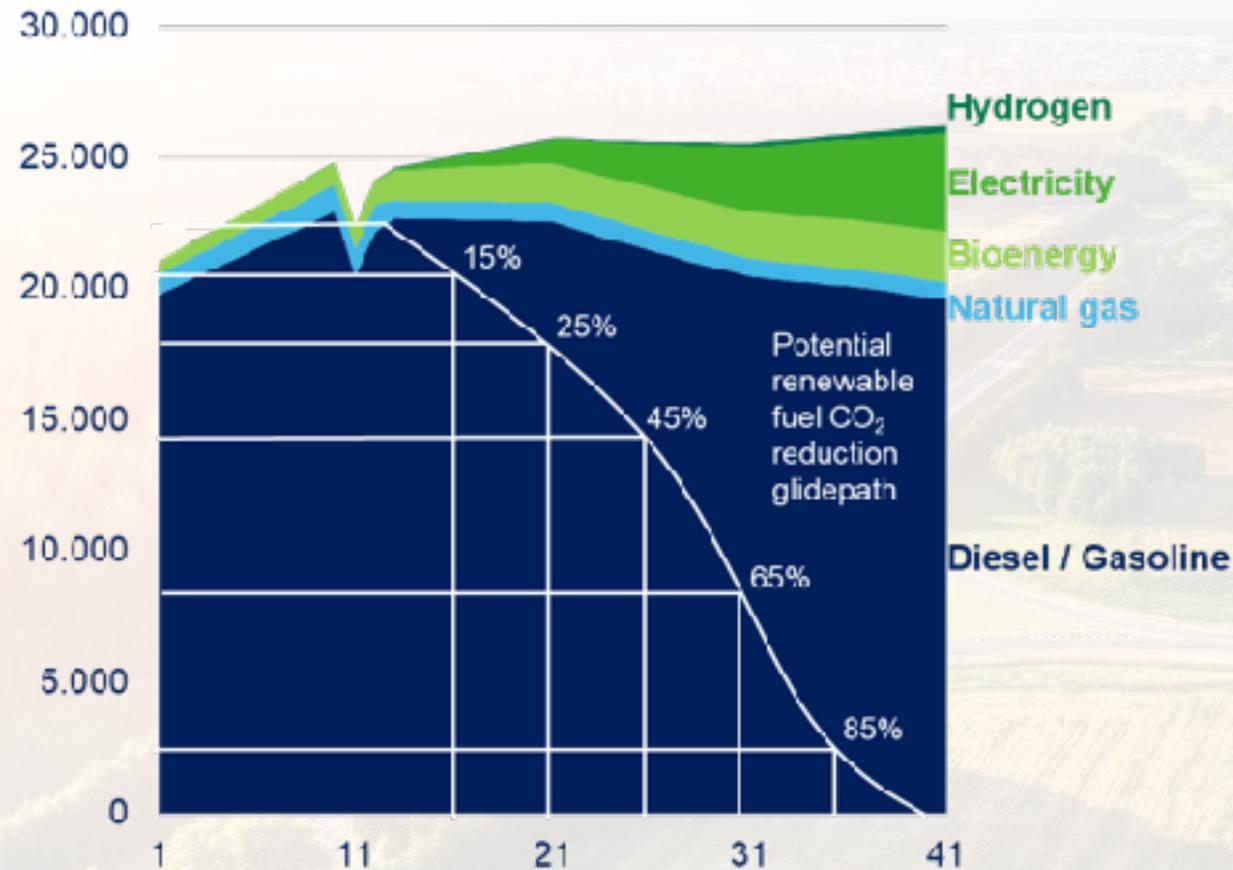


Source: S&P Global Mobility 10-2023 76/195 Countries Worldwide

...Higher Energy Demand Requires Strong Sustainable Fuel Bymix

Global road transportation energy consumption

[in TWh]



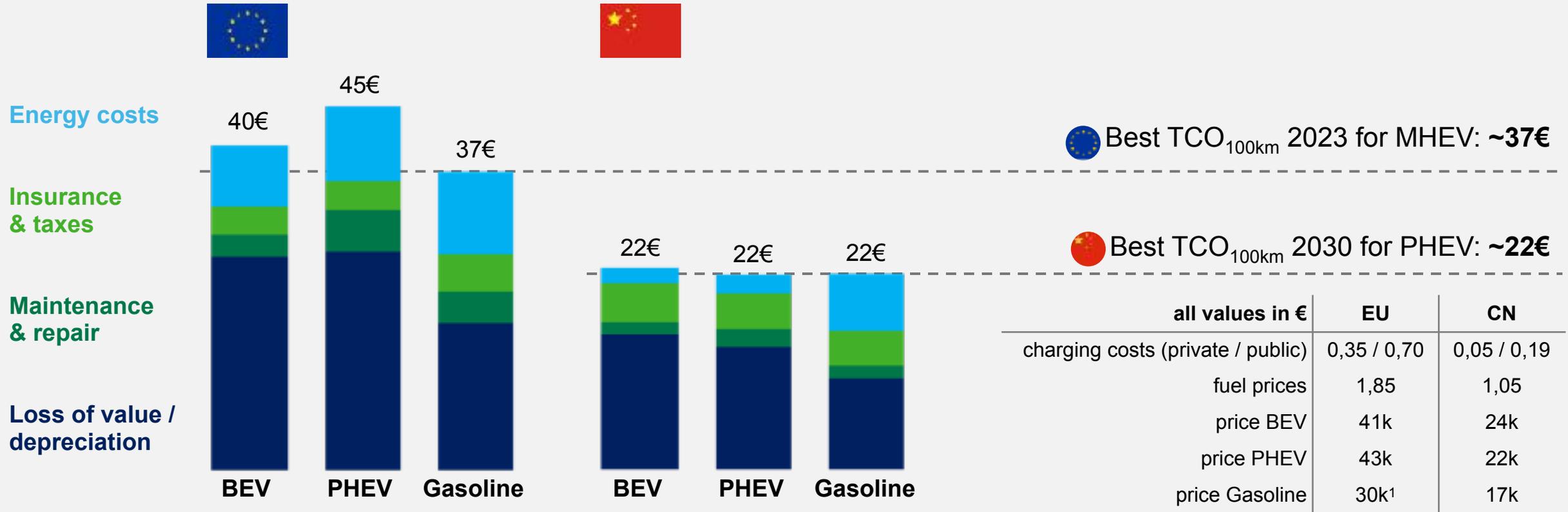
Source: World Energy Outlook 2023 - STEPS / International Energy Agency



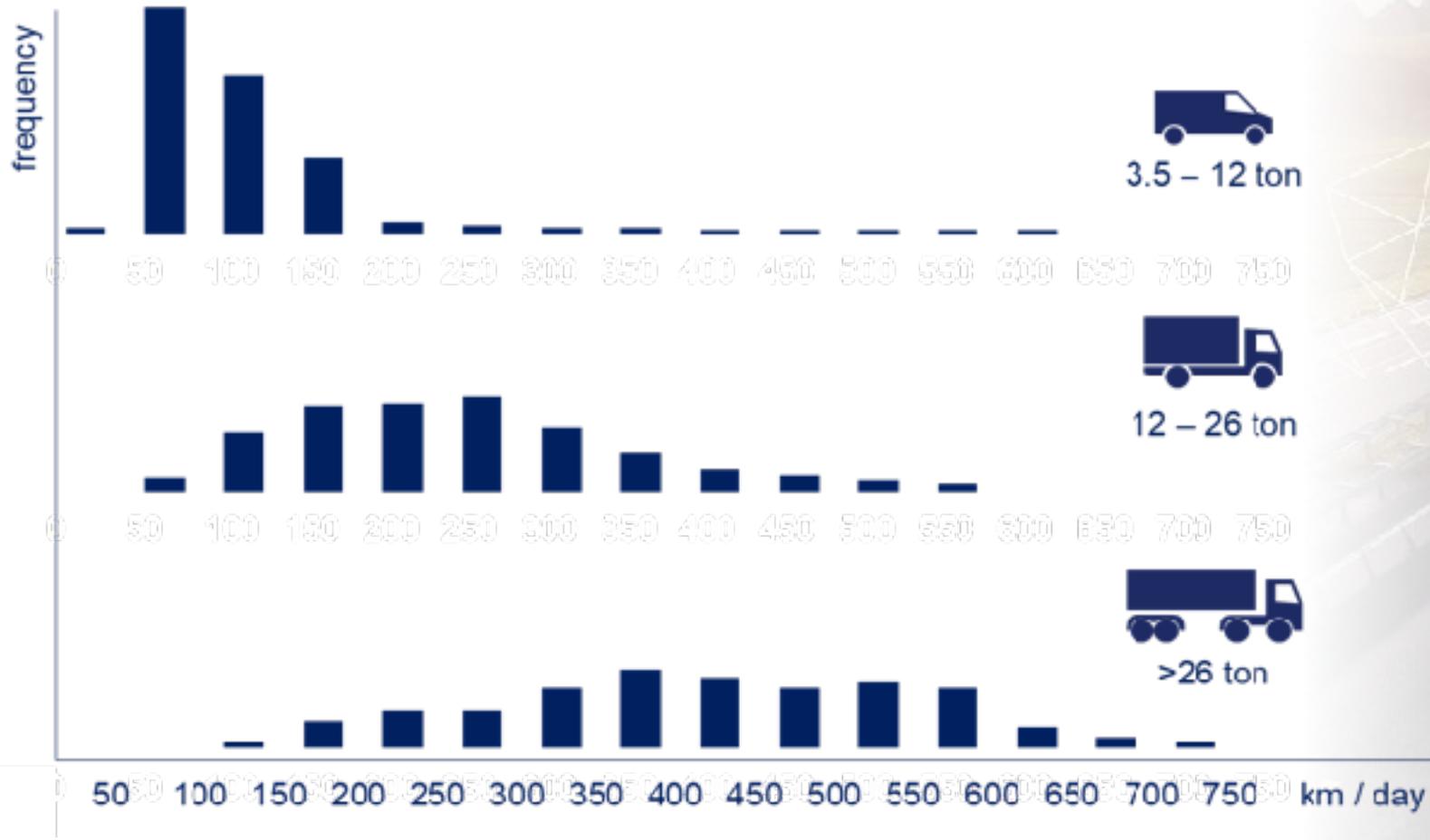
Total Cost of Ownership Calculation for Light Vehicles



LV TCO without subsidies EU & China 2023 per 100km



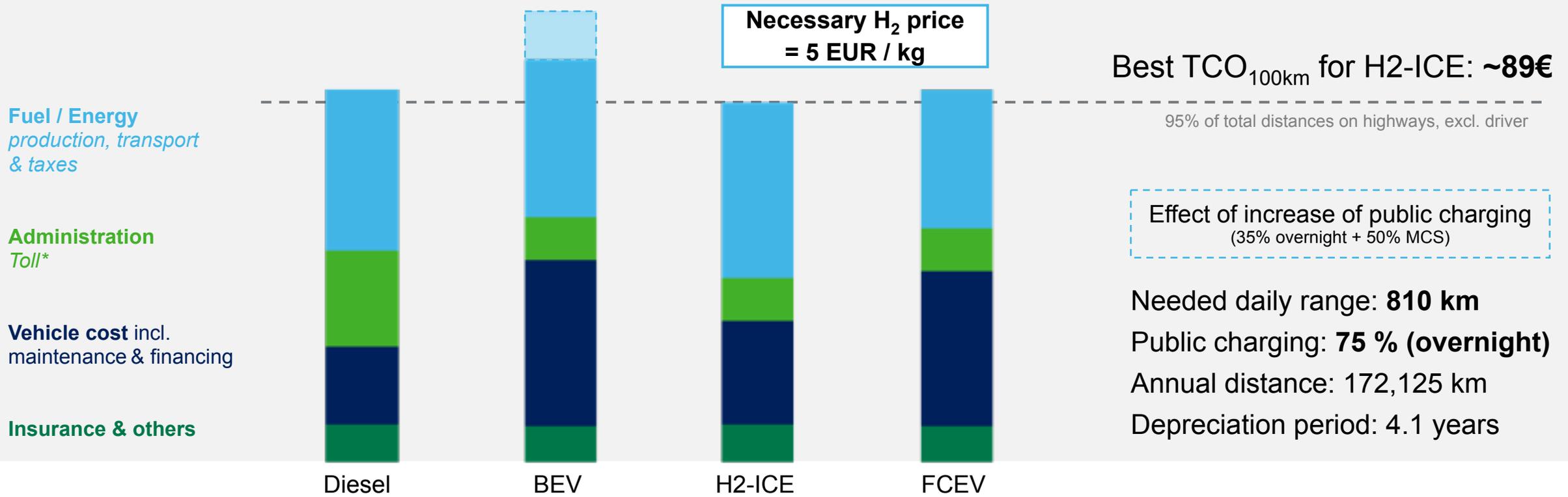
High Variety of Truck Usage Scenarios



Total Cost of Ownership Calculation for International Long Haul Truck 2030



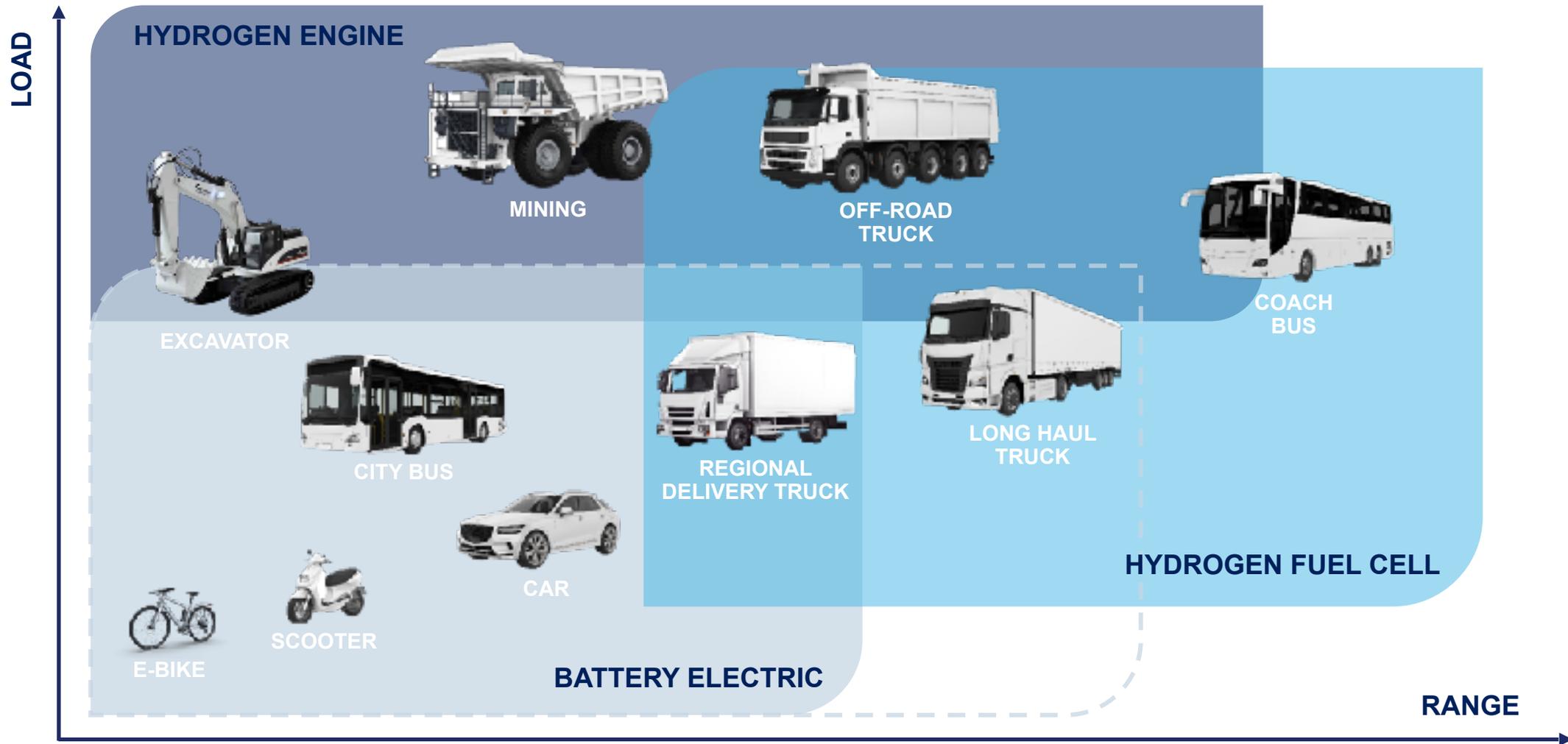
Stuttgart – Almería: ~2.000km



FCEV & H2-ICE with cost benefit at 5 EUR/kg H₂ - massive subsidies needed to reach target H₂ price
 H₂ infrastructure needs to be established

*Highway tolls calculated according to country-specific rates in GER, FR & ES, and concrete distance along route from Stuttgart to Almería

The Future of Mobility Will be more Diverse



High Sun-to-Wheel Efficiency is Key for Local Green Energy Production

$\eta \sim 14\%$
Total Efficiency

20%
PV-Modules

x

97%
PV-Inverter

x

95%
Stationary
Battery Storage

x

94%
Charging

x

95%
Cabin Comfort
(Heating / Cooling)

x

85%
Vehicle /
E-Powertrain

Efficiency in Motion

MAHLE

