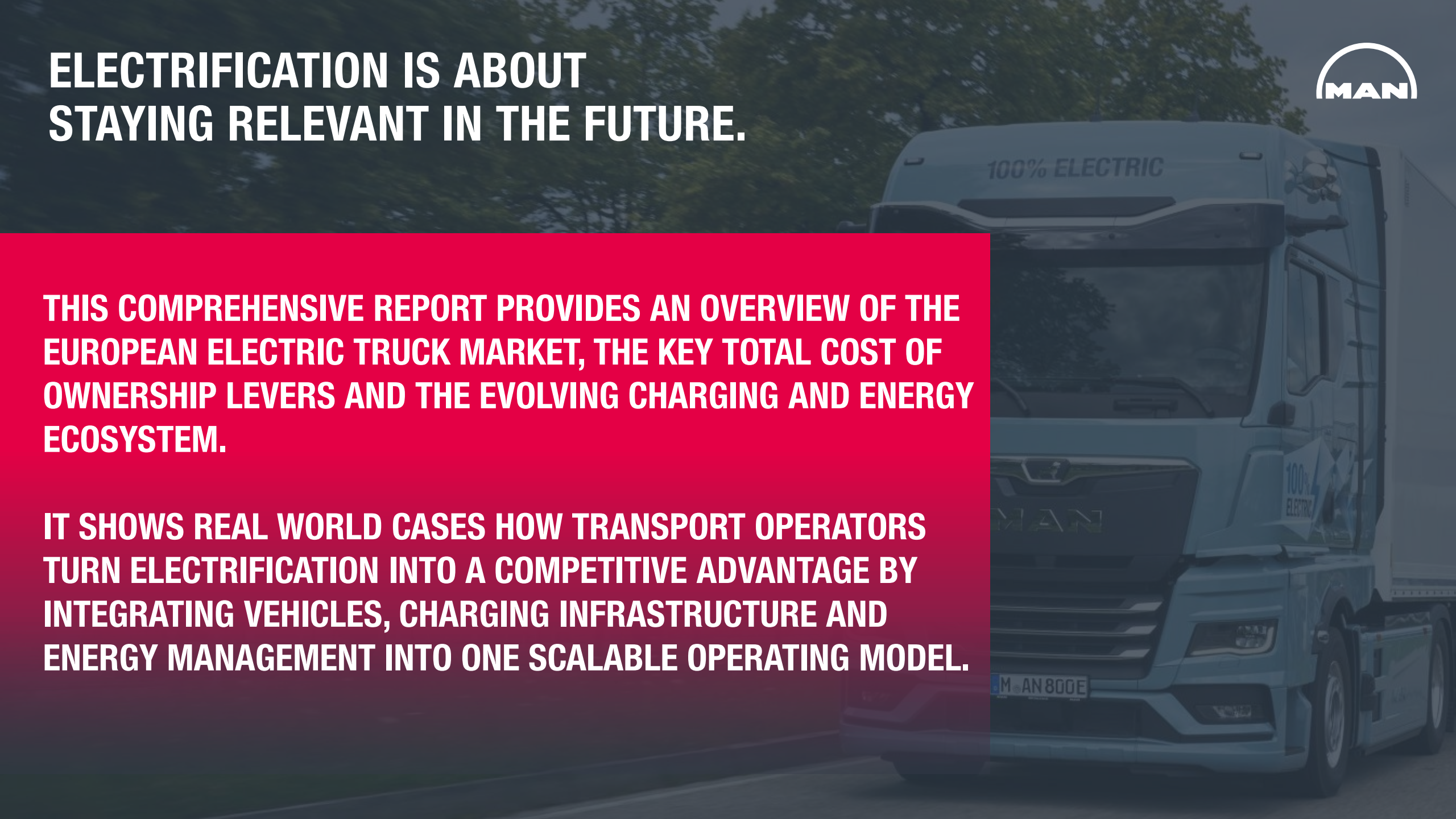
BEYOND DIESEL.

TURNING ELECTRIFICATION INTO A STRUCTURAL COMPETITIVE ADVANTAGE IN THE EUROPEAN ROAD HAULAGE INDUSTRY.

MAN STRATEGY REPORT
MANAGEMENT SUMMARY

09/2026
#SimplifyingBusiness

ELECTRIFICATION IS ABOUT STAYING RELEVANT IN THE FUTURE.



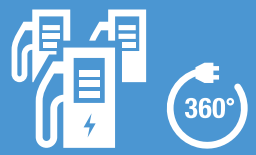
THIS COMPREHENSIVE REPORT PROVIDES AN OVERVIEW OF THE EUROPEAN ELECTRIC TRUCK MARKET, THE KEY TOTAL COST OF OWNERSHIP LEVERS AND THE EVOLVING CHARGING AND ENERGY ECOSYSTEM.

IT SHOWS REAL WORLD CASES HOW TRANSPORT OPERATORS TURN ELECTRIFICATION INTO A COMPETITIVE ADVANTAGE BY INTEGRATING VEHICLES, CHARGING INFRASTRUCTURE AND ENERGY MANAGEMENT INTO ONE SCALABLE OPERATING MODEL.

THE TRUCK STARTS THE TRANSITION.
THE ECOSYSTEM SCALES IT.

ELECTRIFICATION HAS REACHED THE BUSINESS TIPPING POINT

Battery-electric trucks are already delivering profitable operations across Europe. The question is no longer if fleets should electrify, but where to start and how fast to scale.



THE SYSTEM -NOT THE TRUCK ALONE- CREATES THE ADVANTAGE

The biggest value comes from combining trucks, charging, photovoltaics, battery storage and smart energy management. Competitive advantage will be driven by the quality of the operating system around the truck, not the vehicle alone.

EXECUTION AT SCALE SEPARATES LEADERS FROM FOLLOWERS

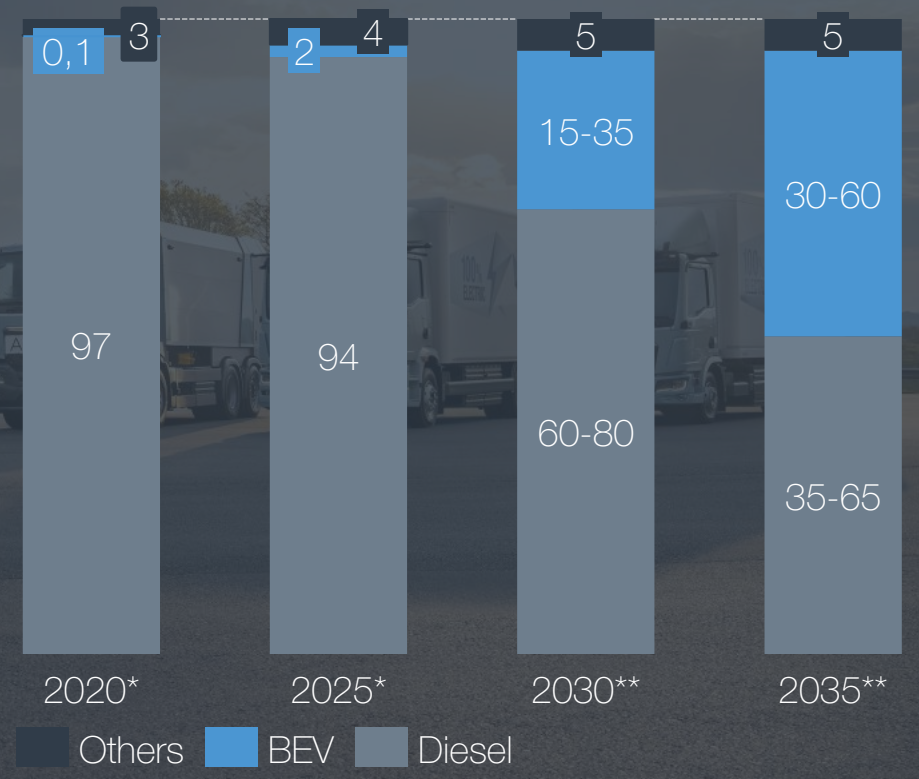
Regulation, customer demand and infrastructure expansion are accelerating the shift to electric transport. Companies that move early can secure cost and market advantages, while late adopters risk falling behind.

ELECTRIFICATION IS BECOMING A STRUCTURAL MARKET SHIFT.

- Electric truck registrations could reach 15–35% by 2030 and 30–60% by 2035. Next Decade will be dominated by electrification.
- CO_2 targets make battery electric trucks a core enabler of economy-wide decarbonization.
- Infrastructure must be given the same priority as vehicle targets. In practical terms, this means treating charging infrastructure as critical infrastructure,
- Shippers increasingly require zero-emission logistics, making BEV strategies a tender qualification.
- Depot charging will dominate electric trucking, lowering costs and enabling PV, storage and smart charging.
- First movers build advantage, while late movers risk tender exclusion and higher compliance costs.

CURRENT AND EXPECTED DEVELOPMENT OF NEW ELECTRIC TRUCK REGISTRATIONS

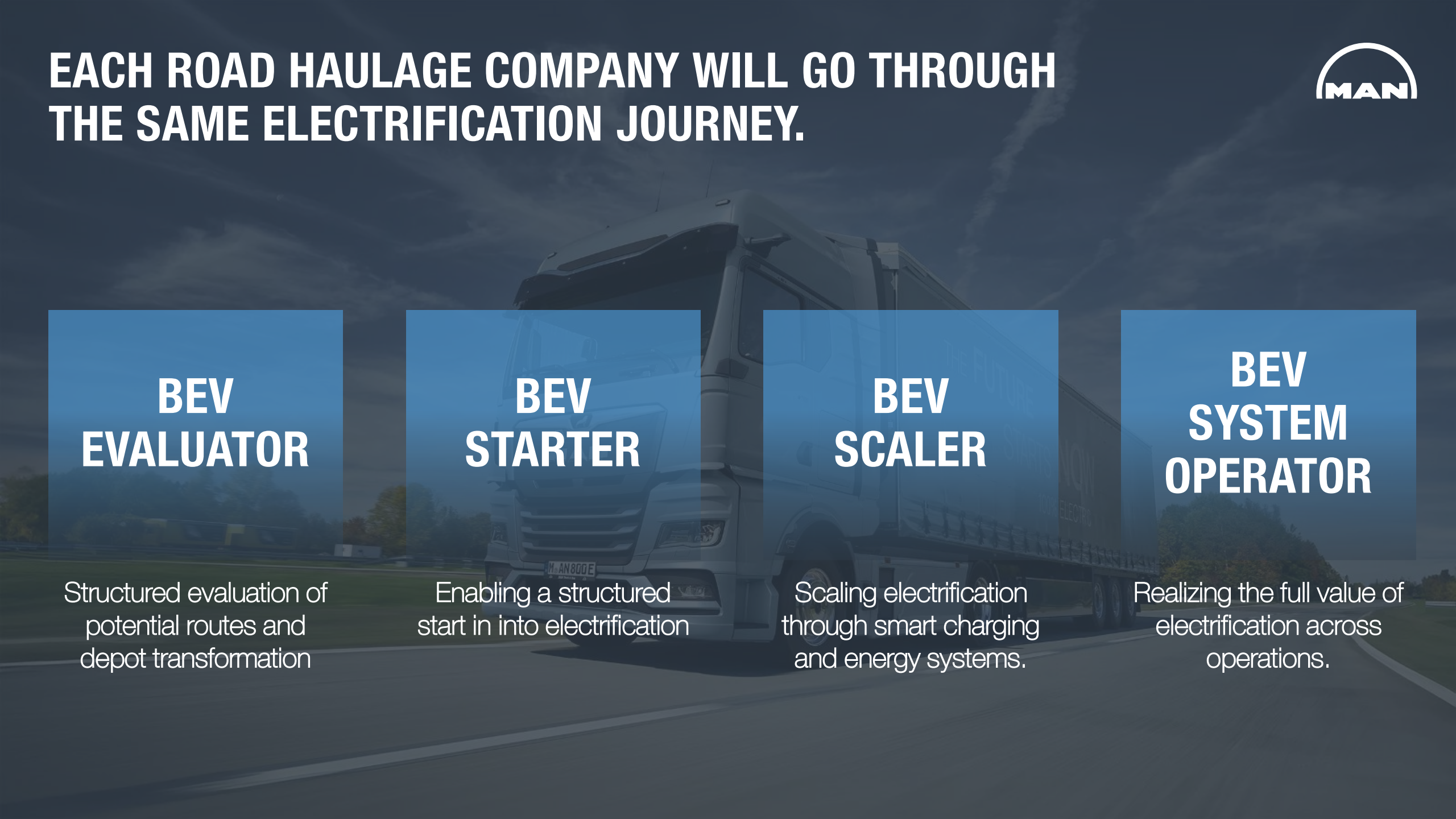
EU27+3 >6t [in %]



*past registrations **expected registrations

Source: MAN & McKinsey Center for Future Mobility

EACH ROAD HAULAGE COMPANY WILL GO THROUGH THE SAME ELECTRIFICATION JOURNEY.



BEV EVALUATOR

Structured evaluation of potential routes and depot transformation

BEV STARTER

Enabling a structured start in into electrification

BEV SCALER

Scaling electrification through smart charging and energy systems.

BEV SYSTEM OPERATOR

Realizing the full value of electrification across operations.

LEAD THE CHARGE TO MOVE YOUR FLEET INTO THE ELECTRIC FUTURE.

MAN CUSTOMER ARCHETYPE FRAMEWORK		SMART CHARGING MATURITY LEVEL	BEV TRUCK FLEET TRANSFORMATION
BEV EVALUATER		Evaluation of business potential and derive implications on business & depot transformation	0% BEVs
BEV STARTER	LEVEL 1 Basic Depot Charging	Charge Point Installation and Basic Controls Monitoring, Diagnosis, Reporting Load Management Charging scheduling/planning Advanced Analytics	1-10% BEVs
BEV SCALER	LEVEL 2 Smart Depot Charging	Photovoltaics/Battery Energy Storage System optimized charging Price-optimized charging Peak Shaving Demand-Charge/Grid-Fee Optimization (V1G)	11-50% BEVs
BEV SYSTEM OPERATOR	LEVEL 3 Advanced Energy Systems	Charge Point Monetization Charge Point Reservation Energy Market Participation (V2G)	51-100% BEVs

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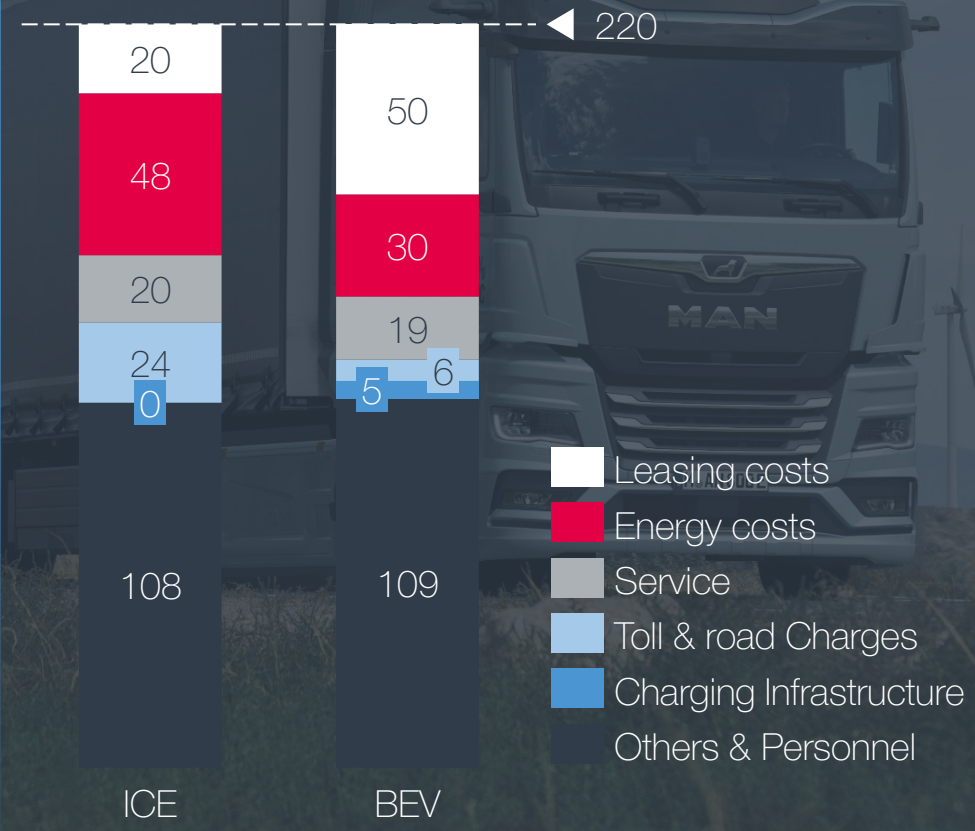
THE BEV BUSINESS CASE – WHAT DRIVES PROFITABILITY?

- Toll differentiation is the strongest political lever, while removing it reduces BEV TCO competitiveness by 7.5 percentage points.
- ETS2-driven diesel price increases improve BEV competitiveness, by 2.0 percentage points.
- Lower depot charging costs, larger fleets, and higher annual mileage significantly strengthen the BEV business case.
- Vehicle purchase subsidies improve BEV TCO more than depot planning subsidies, but both provide measurable benefits.
- BEV profitability depends on optimizing policy, depot energy, and fleet operations—not on vehicle technology alone.
- A clear, stable, and long-term policy framework for road tolls is therefore essential to provide transport operators with the planning certainty required to make large scale investments in BEV trucks and charging infrastructure.

TCO COMPARISON BETWEEN ICE AND BEV TRUCKS

European baseline customer [in ct/km]



Source: MAN
Assumption: Operating 5 trucks; Annual mileage: 100,000 km per truck; Leasing period: 5 years; Toll road share: 70 %; Energy consumption: 30 L / 100 km (Diesel), 100 kWh / 100 km (BEV); Charging mix: 70 % depot / 30 % external; Energy price: Depot charging: 0.26 € / kWh, External charging: 0.40 € / kWh, Diesel: 1.50 € / L; Toll costs: Diesel: 0.34 € / km, BEV: 0.09 € / km; Infrastructure & operational costs: Depot charging and energy infrastructure 1,700 € / month, Depot planning: 30,000 €.

BEV PROFITABILITY IS DRIVEN BY VARIOUS LEVERS.

IMPACT OF RELEVANT LEVERS ON BEV TCO UNDER BASELINE EUROPEAN CUSTOMER ASSUMPTIONS

CLUSTERS	LEVER	BASE VALUE	CHANGE	BEV TCO IMPACT [CHANGE IN PERCENTAGE POINTS (PP)]
POLITICAL LEVERS	Introduction of ETS2 with impact on diesel price	1.50 €/L	+10% (1.65 €/L)	+2.0 pp
	Increase of toll difference between ICE and BEV	0.25 €/km	+10% (0.275 €/km)	+0.8 pp
	Removal of toll difference between ICE and BEV	0.25 €/km	-100% (0.00 €/km)	-7.5 pp
	Subsidy per new vehicle purchase	0 €	+10,000 € (Per vehicle)	+1.8 pp
	Subsidy for depot infrastructure planning	0 €	+30,000 € (Per fleet)	+0.6 pp
DEPOT TRANSFOR-MATION	Depot charging price	0.26 €/kWh	-10% (0.234 €/kWh)	+1.2 pp
	Reducing public charging share	30 %	-10 pp (20 %)	+0.6 pp
	Charging infrastructure cost allocation on fleet	1,700 €/month	-10% (1,530 €/month)	+0.2 pp
CUSTOMER OPERATION	Fleet size (number of trucks)	5	+100% (10 trucks)	+1.3 pp
	Annual mileage	100,000 km	+10% (110,000 km)	+1.6 pp
	Toll road share of annual milage	70 %	+10 pp (80 %)	+1.1 pp

OUR CUSTOMERS SHOW THAT WITH INCREASING BEV TRANSFORMATION MATURITY PROFITABILITY WILL INCREASE.

TOTAL COST OF OWNERSHIP COMPARISION

TCO delta over 5 yrs [in %]

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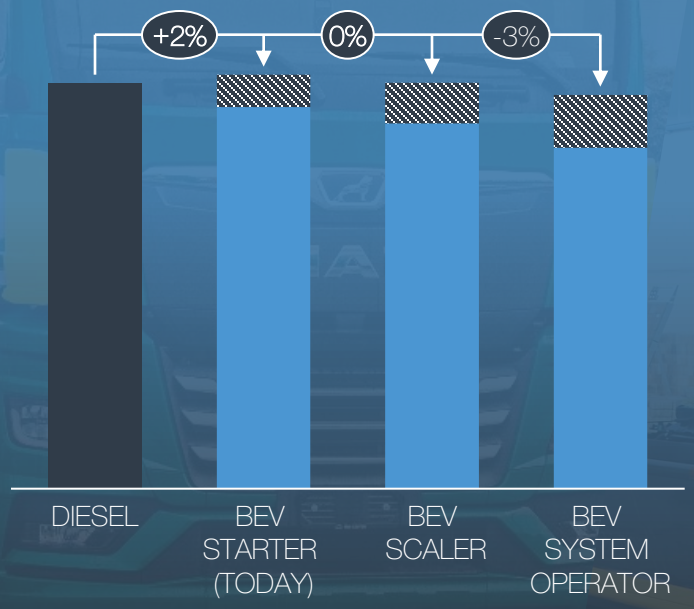
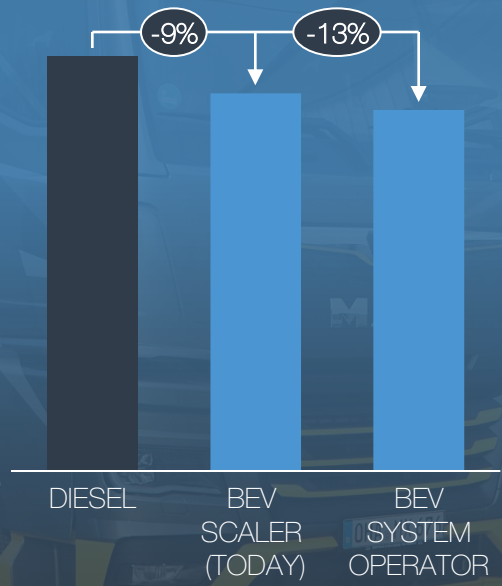


Upside potential in light of expected Eurovignette introduction leading to toll advantage

BBL



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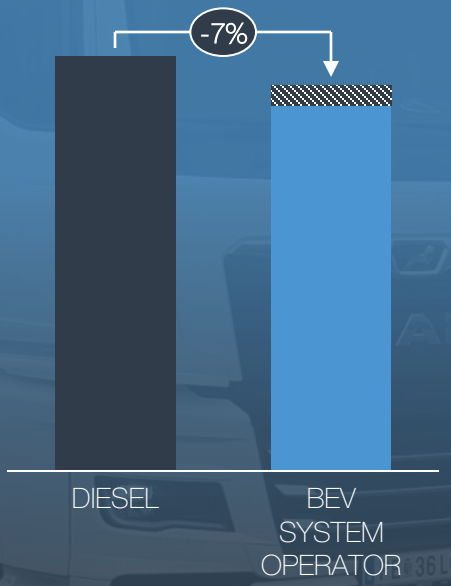
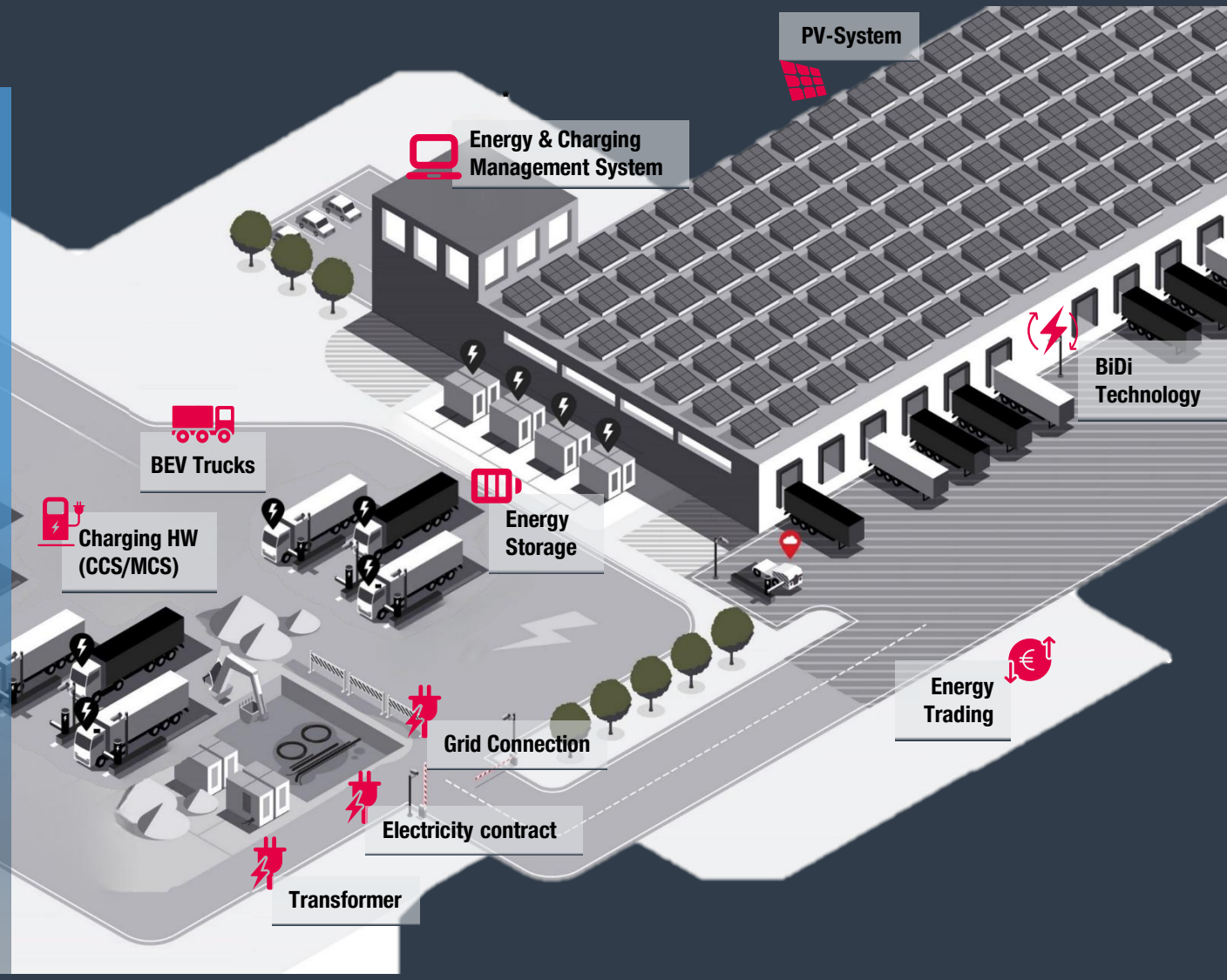


Upside potential by utilizing all charging buidling blocks

DEPOT ELECTRIFICATION WILL BE THE BACKBONE OF FUTURE SUCCESS IN SCALING.

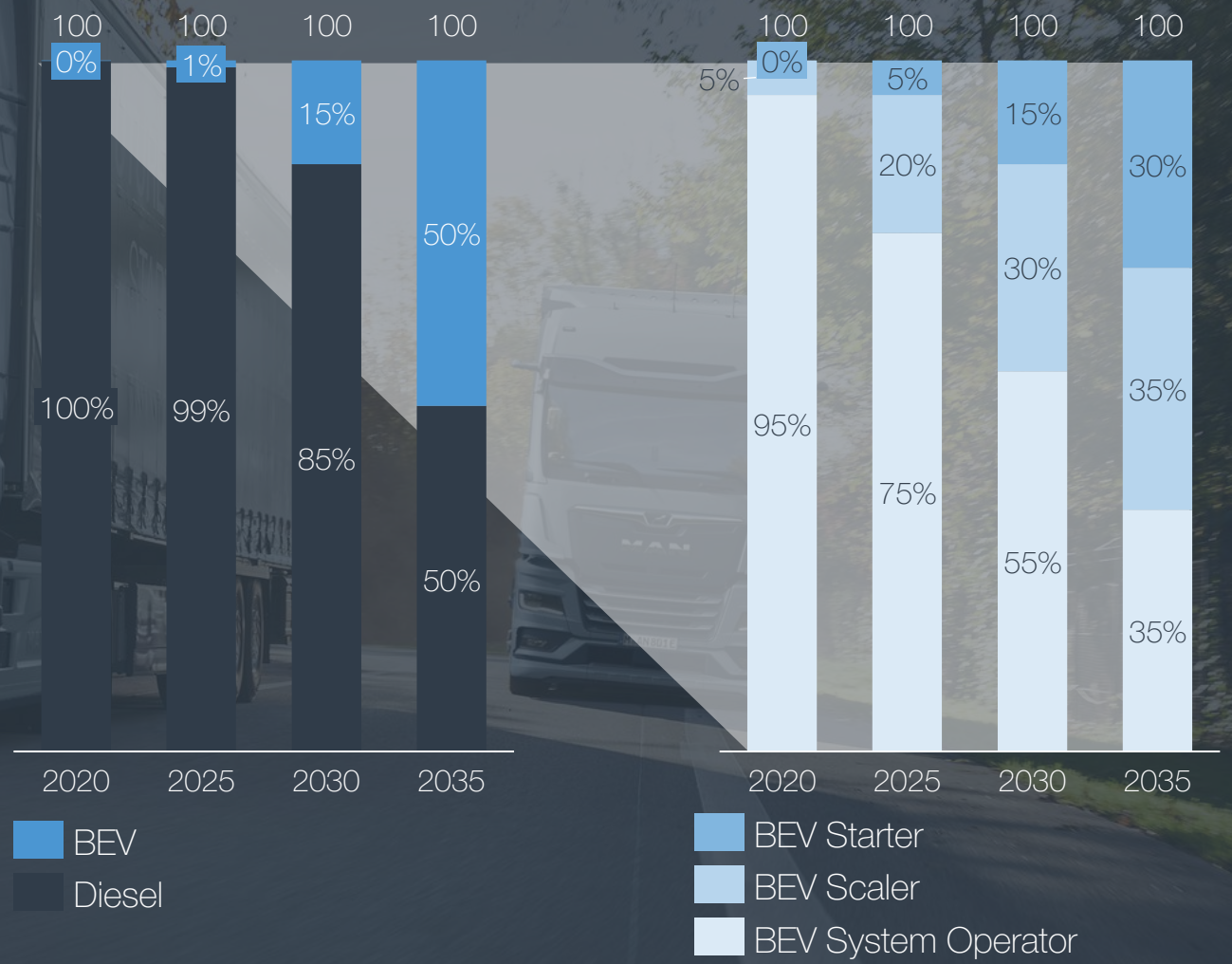
- Smart depot charging transforms energy into a controllable lever for lower costs and greater operational resilience.
- Grid capacity, transformers, and energy management systems must scale alongside growing BEV fleets.
- Integrating PV, battery storage, and load management maximizes WTW emissions reductions and operating savings.
- Advanced charging reduces electricity costs from 40 ct/kWh to approximately 16 ct/kWh through optimized energy management.
- Charging maturity evolves from basic overnight charging to advanced energy systems with market participation and charge-point monetization.



COMPETE ELECTRIC OR COMPETE FROM BEHIND.

- Up to 300,000 European operators are expected to adopt BEVs by 2035, transforming the European freight industry.
- Battery electric trucks reduce lifecycle greenhouse gas emissions by 71% today and up to 81% by 2030.
- Early adopters already achieve measurable savings in energy, maintenance, tolls, and CO_2 emissions.
- By 2035, around 30% of operators are expected to become BEV System Operator with advanced fleet and energy capabilities.
- Electrification is becoming a strategic necessity for cost leadership, compliance, and long-term customer relevance.

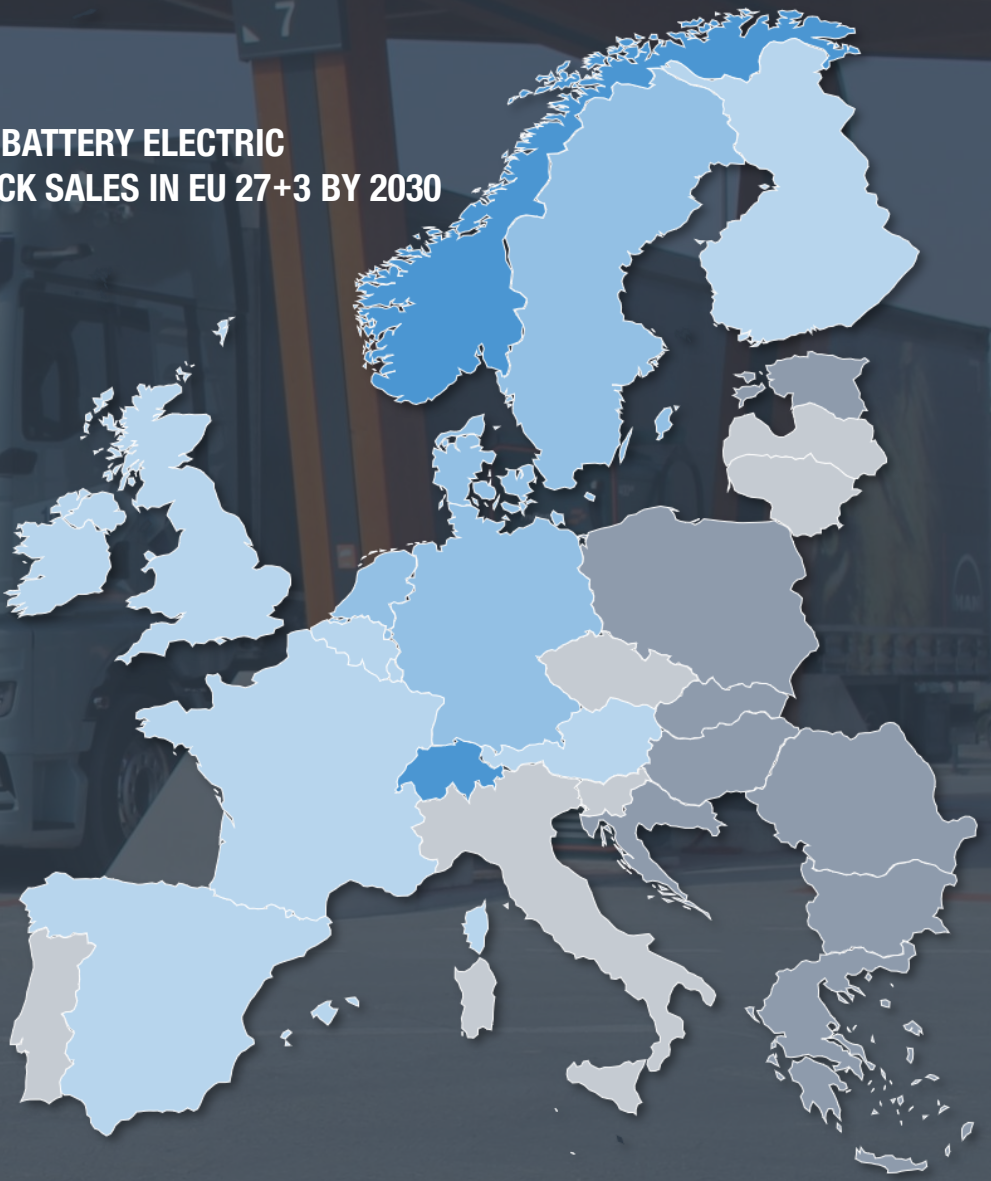
DEVELOPMENT OF EUROPEAN CUSTOMERS SHARE WITH AT LEAST ONE BEV TRUCK AND CUSTOMER ARCHETYPES



WINNING ELECTRIC TRUCKING MEANS ALIGNING THE WHOLE SYSTEM.

- Winning electric trucking requires aligning vehicles, charging, energy, software, customers, and regulation into one ecosystem.
- Competitive advantage comes from coordinated ecosystem execution, not from superior trucks alone.
- Transport operators should integrate fleet, depot, and customer planning into one scalable electrification roadmap.
- Cross-industry collaboration accelerates a more efficient, resilient, and cost-effective European transport system.
- In a nutshell, start simple and scale smart.

SHARE OF NEW BATTERY ELECTRIC LONGHAUL TRUCK SALES IN EU 27+3 BY 2030



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CUSTOMERS

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