



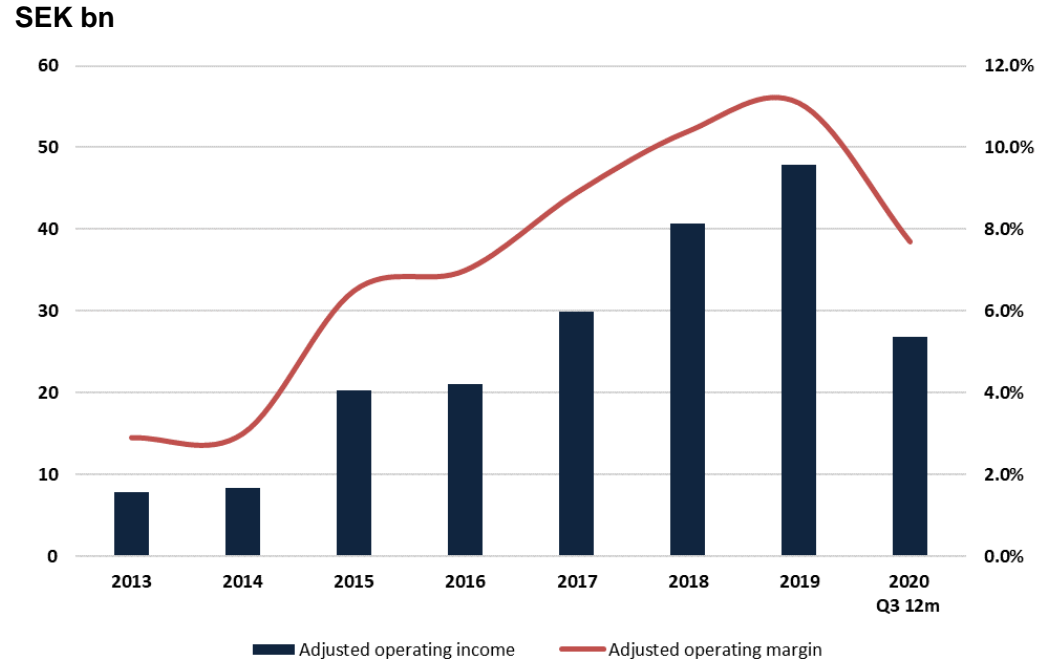
# Shaping the future of transportation

November 5, 2020

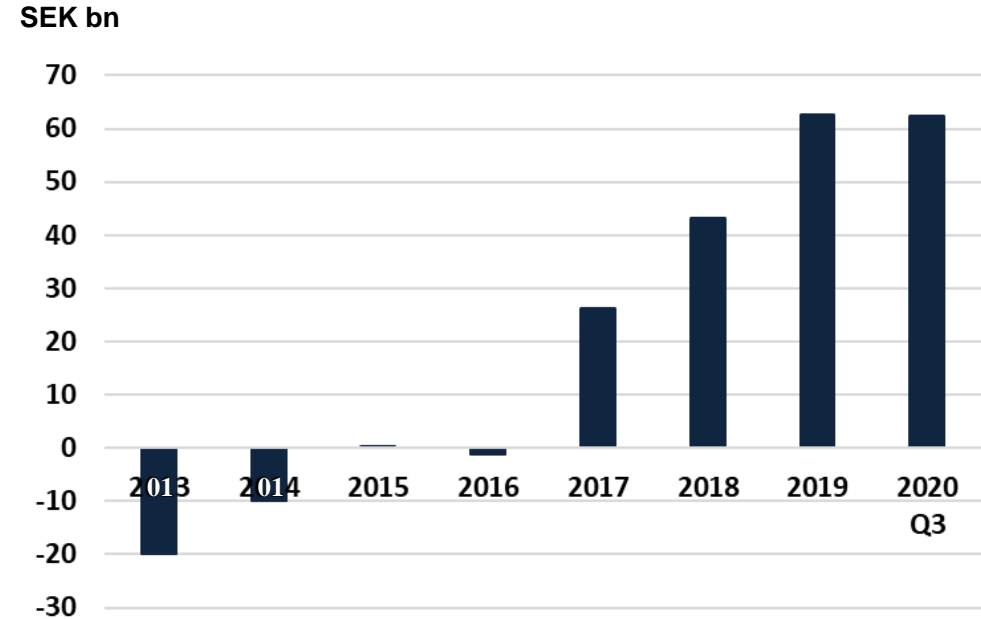


# Strengthening the resilience over the cycle

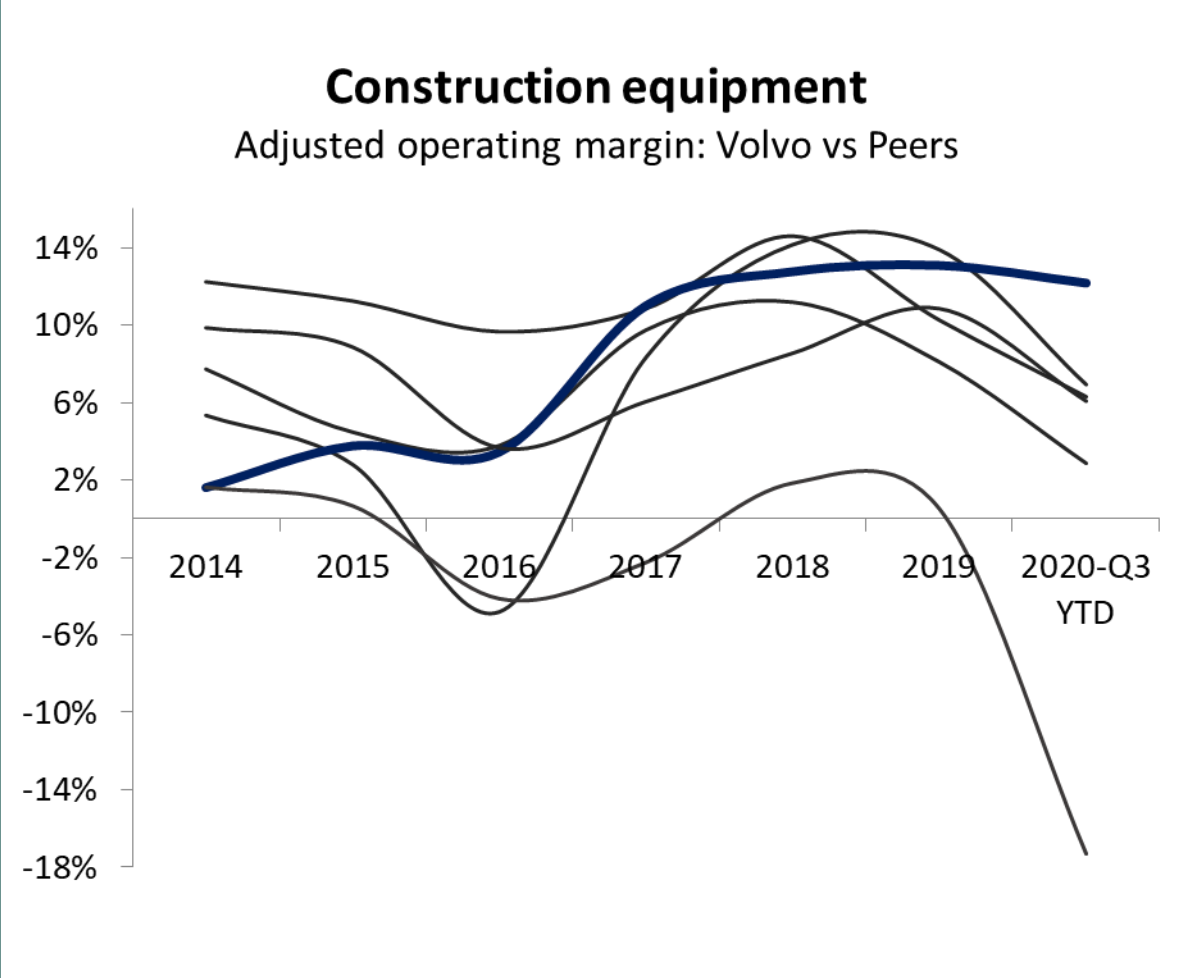
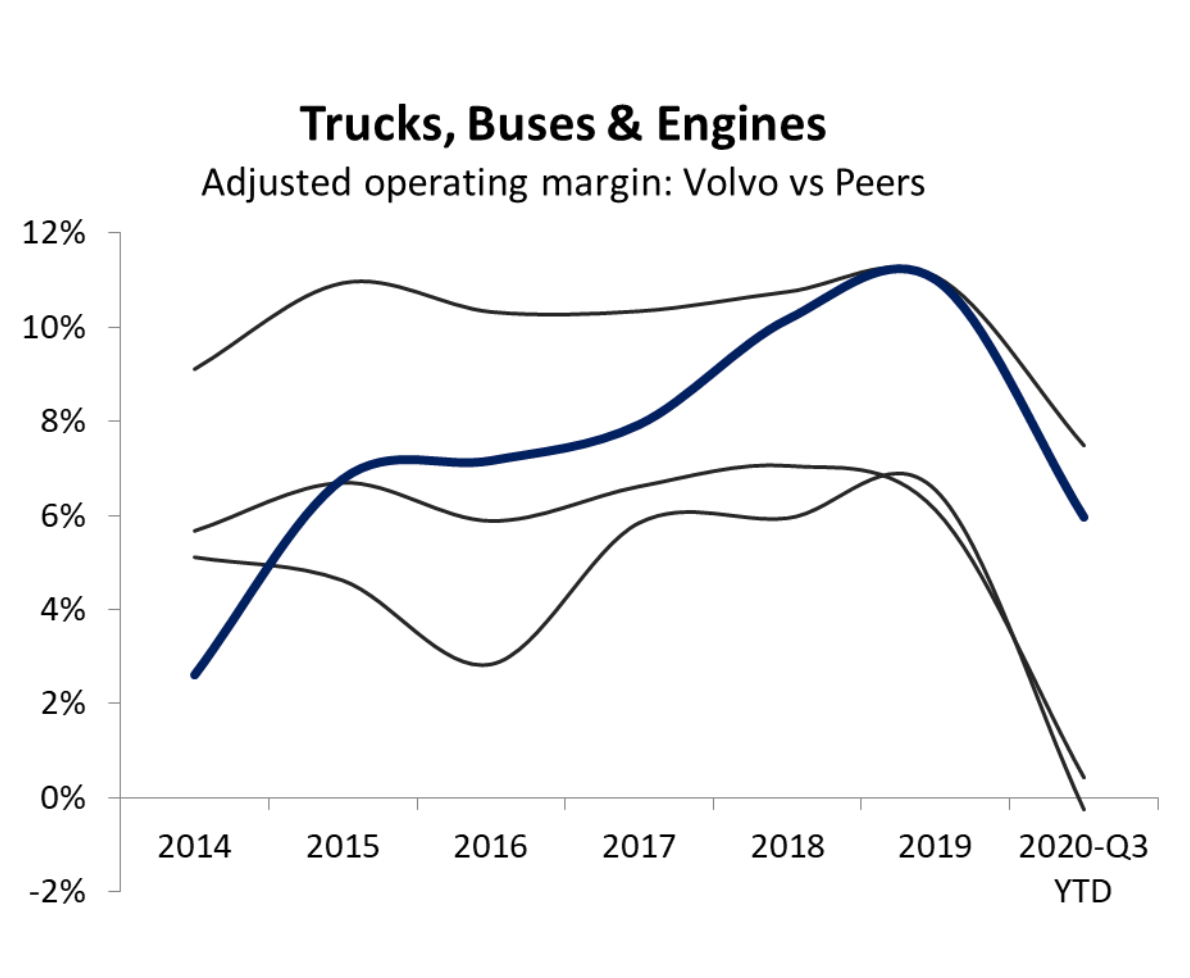
## Volvo Group Adjusted operating income and margin



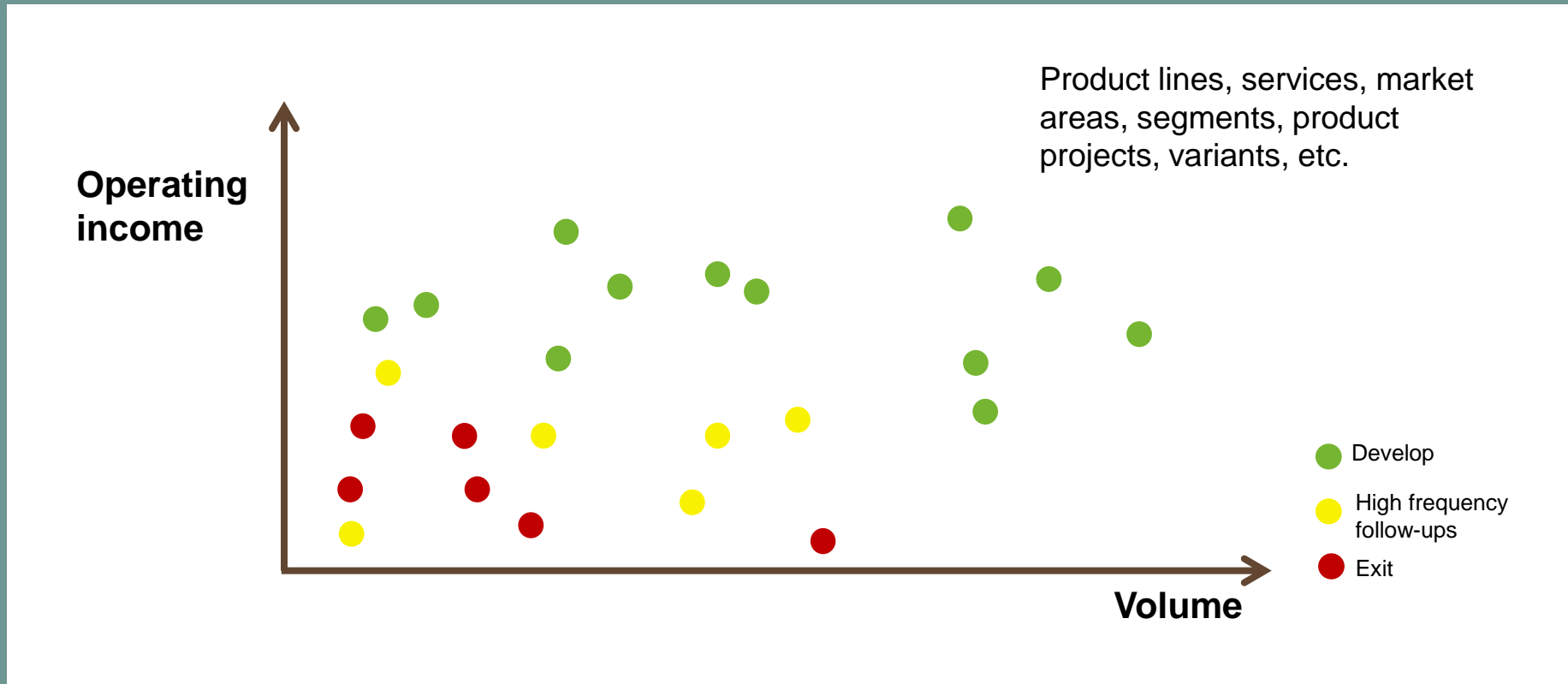
## Net cash position, Industrial Operations (excl. pensions and lease liabilities)



# Achieving industry-leading performance



# We continue to review performance and take action



# Delivering on our financial ambitions

Gradual and  
**consistent**  
earnings  
**improvement**

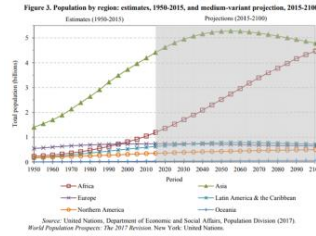
**Reduced**  
**volatility**  
in earnings and  
cash flow

**Discipline**  
in capital  
allocation/  
investments

Continuous  
investments in new  
**business models**  
by innovation and  
new technologies

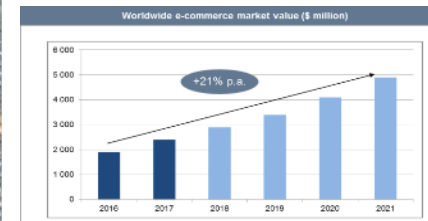
# Global mega trends

**Growing global population**



**Decarbonization and air quality**

**Rapid urbanization**



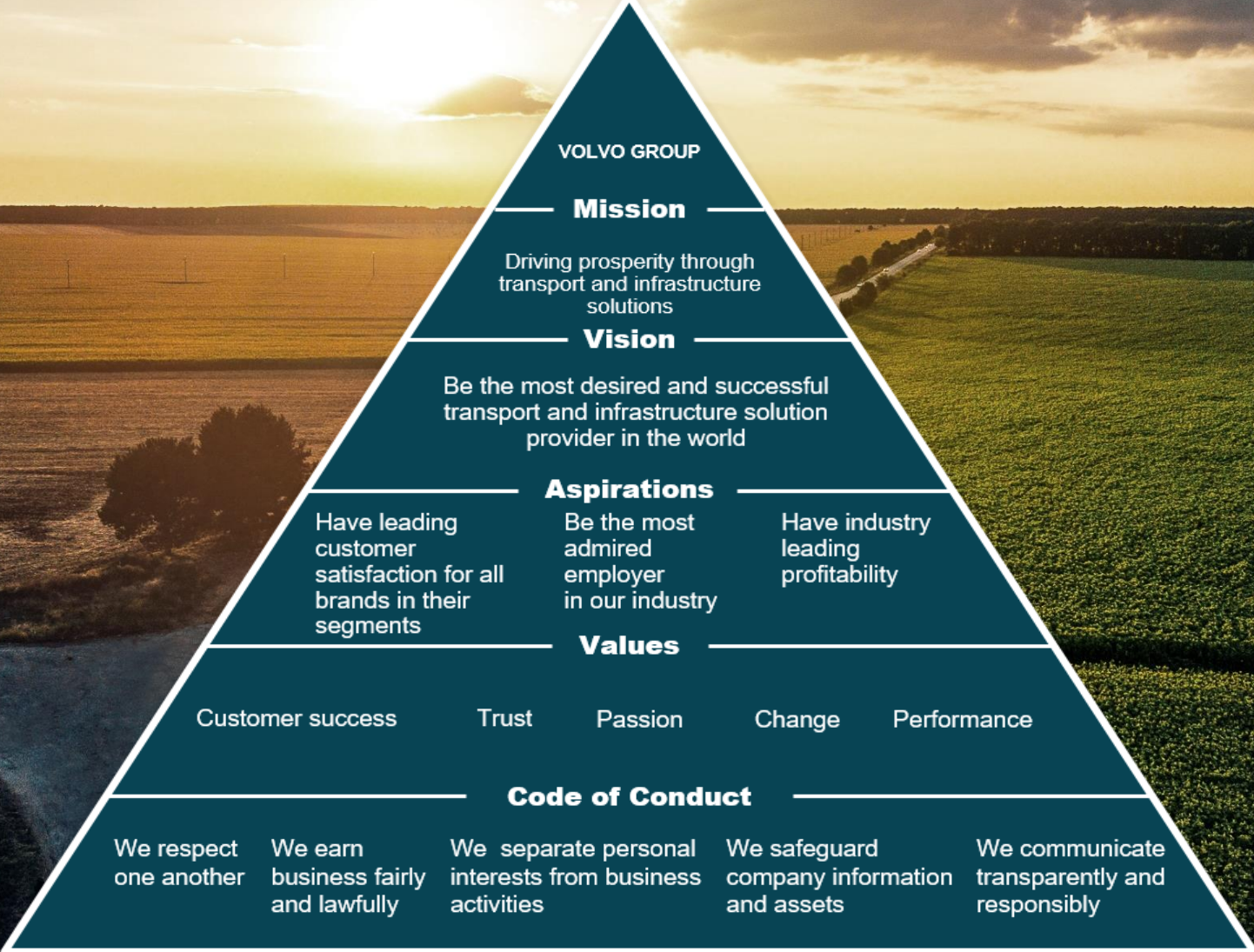
**Growing e-commerce**

**New technologies**



**New societal demands**

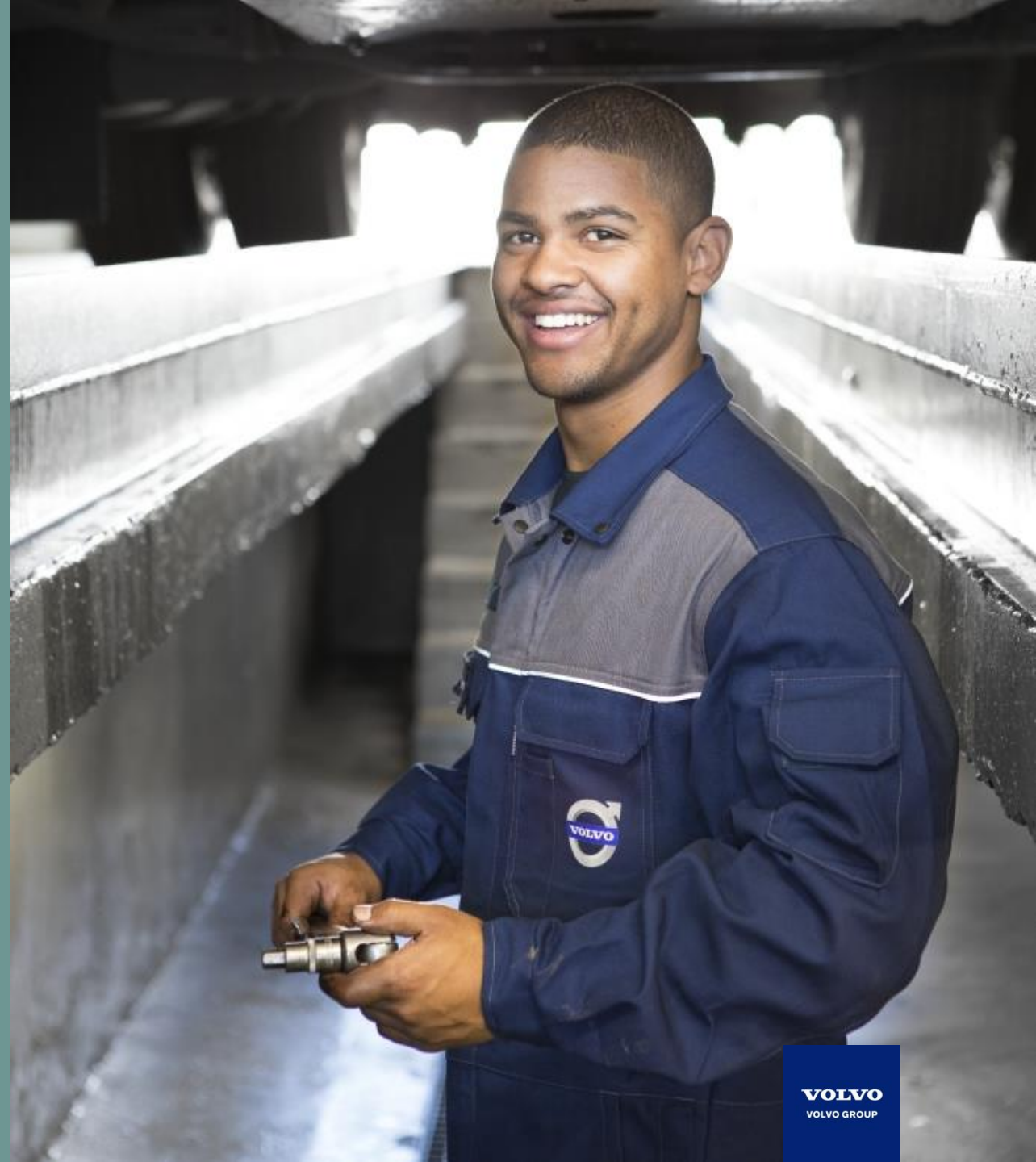
# Our strategy continues to serve us and our customers well



# Performance culture

## FIT FOR THE FUTURE

- Profit and loss responsibility
- Empowerment
- Regionalized value-chains
- Simplicity and speed
- Continuous improvement





# The Volvo Group journey continues



# 7 revised strategic priorities

- 1 Transform the Volvo Group** to become a leading end-to-end integrator as well as offering easy to integrate products and services through strong brands.
- 2 Grow the service business** and target selected industry verticals offering a portfolio of tailor-made solutions.
- 3 Secure a desirable sustainable product and service portfolio** with the right quality, leveraging new and well-known technologies, CAST, partnerships and digital innovation - accelerating electromobility solutions.
- 4 Grow in Asia and the US:** In Asia through JVs, alliances and by strengthening the Volvo Group footprint in China. In the US by significantly improving the Group's market position.
- 5 Develop robust profitability** throughout the decentralized regional value chains by leveraging global scale, digitalization, a purpose-fit footprint and continuous improvement using Volvo Production System.
- 6 Selectively capture, accelerate and scale-up new businesses** and develop competencies and capabilities needed.
- 7 Reinforce value-based leadership and ways of working** where all colleagues are empowered to take action and are accountable for the results.



Long-term ambition:

100%

Safe  
Fossil free  
More productive



# Executing on our CO<sub>2</sub> reduction ambitions

**-18%**

CO<sub>2</sub> reduction per shipped volume in our own transport system since 2013

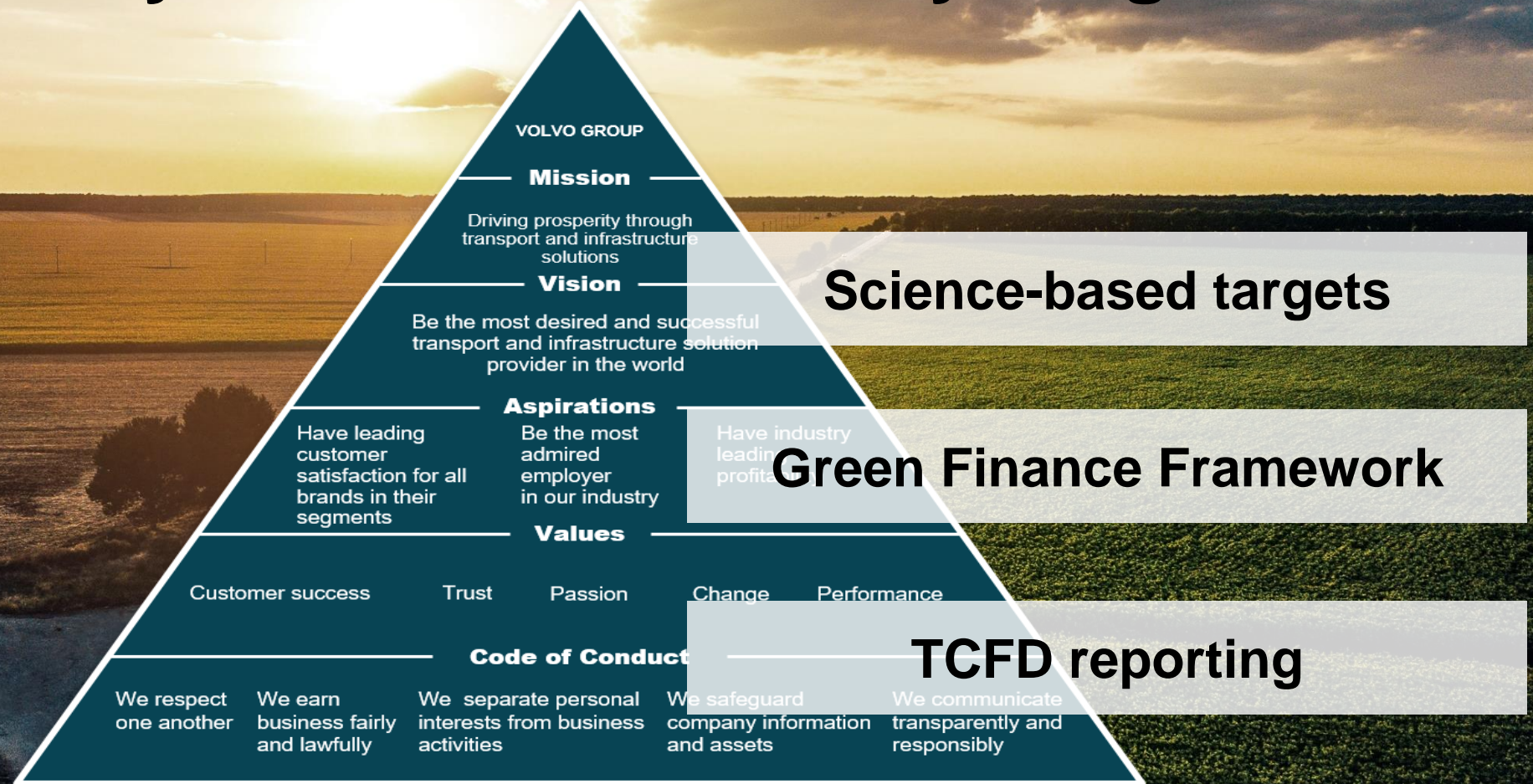
**-35%**

CO<sub>2</sub> reduction in our own manufacturing operations since 2013

# Ghent plant – CO<sub>2</sub> free vehicle production in 2007



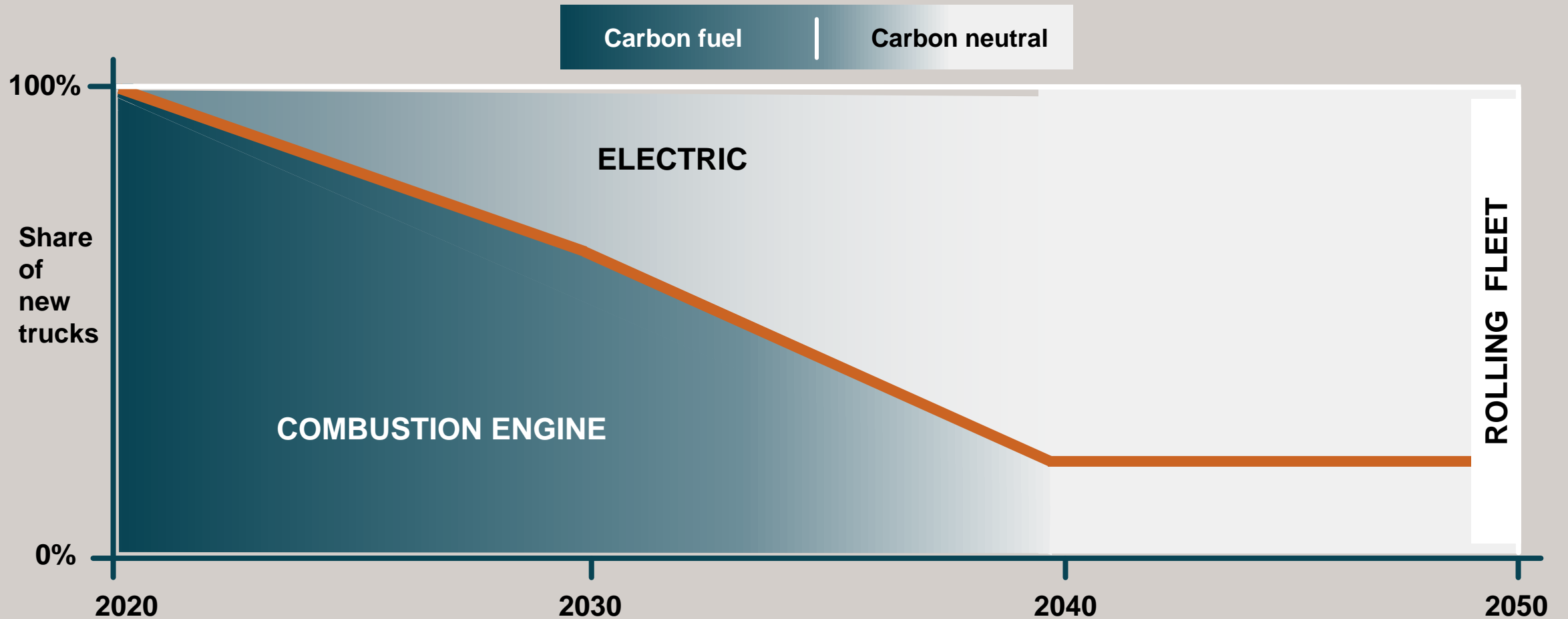
# Sustainability at the heart of everything we do



# Setting a clear direction

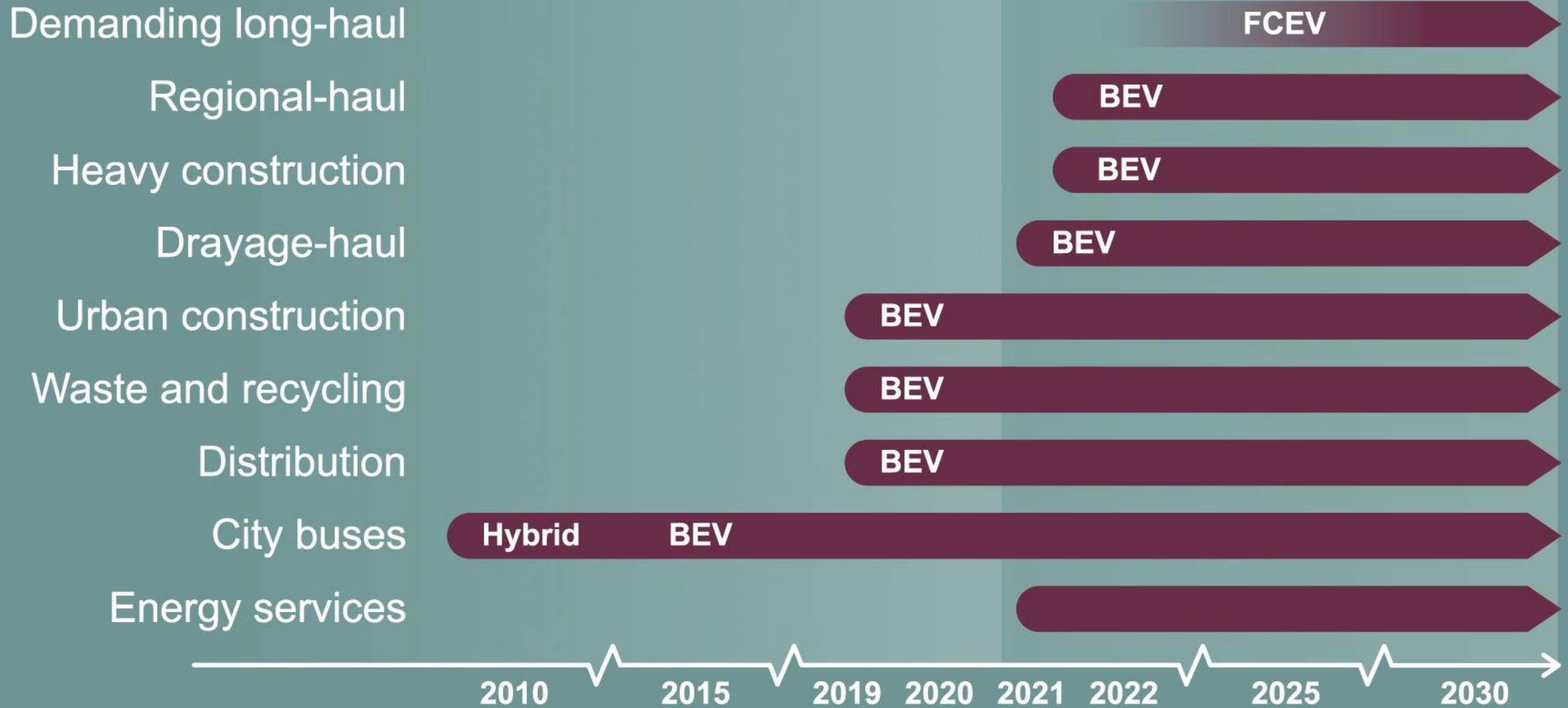
- **>50% of revenues from services and solutions by 2030**
- **>35% electric vehicles by 2030**
- **Leading by example with the world's most sustainable in-house logistics system by 2025**
- **Implementation of 100 transport and infrastructure solutions for our customers by 2025**

# 100% fossil free Volvo Group vehicles from 2040





# Fast-paced introduction



# Addressing a broad spectrum of customer segments



# THE GLOBAL ELECTRIC LINEUP



Volvo FE Electric

Volvo FM Electric

Volvo FH Electric

Volvo VNR Electric

Volvo FMX Electric

Volvo FL Electric



Electric vehicles



Operational efficiency services

# ELECTRIC OFFERING

Maintenance & repair



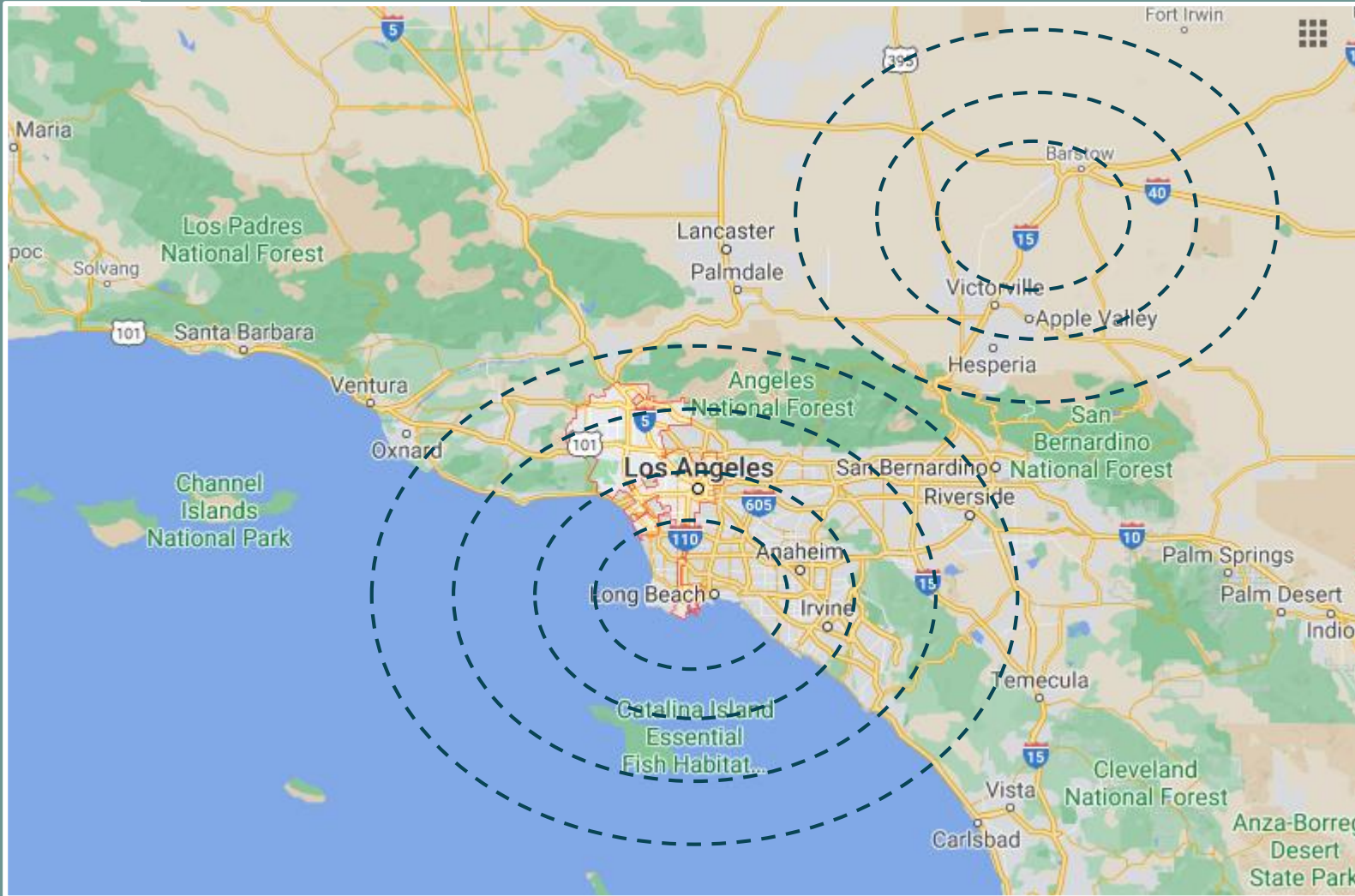
Charging solutions



Volvo Financial Services



# Gradual roll-out of electric ecosystems



Electric vehicles



Charging solutions



Financing



Maintenance & repair



Operational efficiency services





# Customer requirements

- Safety
- Productivity
- Sustainability



# Winning formula: Group technology platform and continued segment leadership



# Volvo CE electrification roadmap

Heavy



Energy recuperation

Electrification

Large



Energy recuperation

Electrification

Medium



Energy recuperation

Electrification

Compact



Electrification

2020

2025

# Unlocking customer value with connectivity





A new business model  
**Value sharing by maximizing capacity**



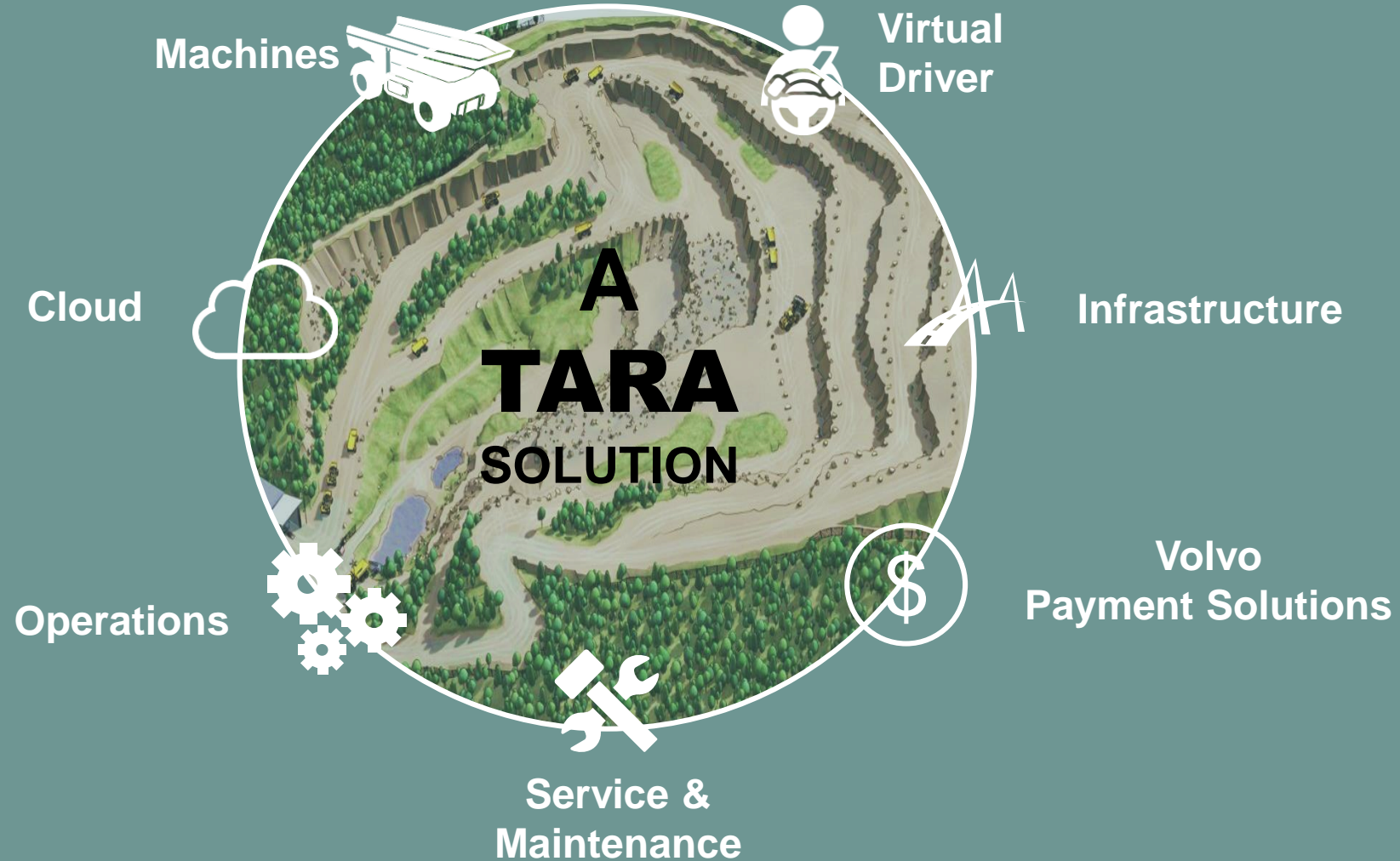
**AUTONOMOUS** ✓  
**ELECTRIFIED** ✓  
**CONNECTED** ✓

**Safe**

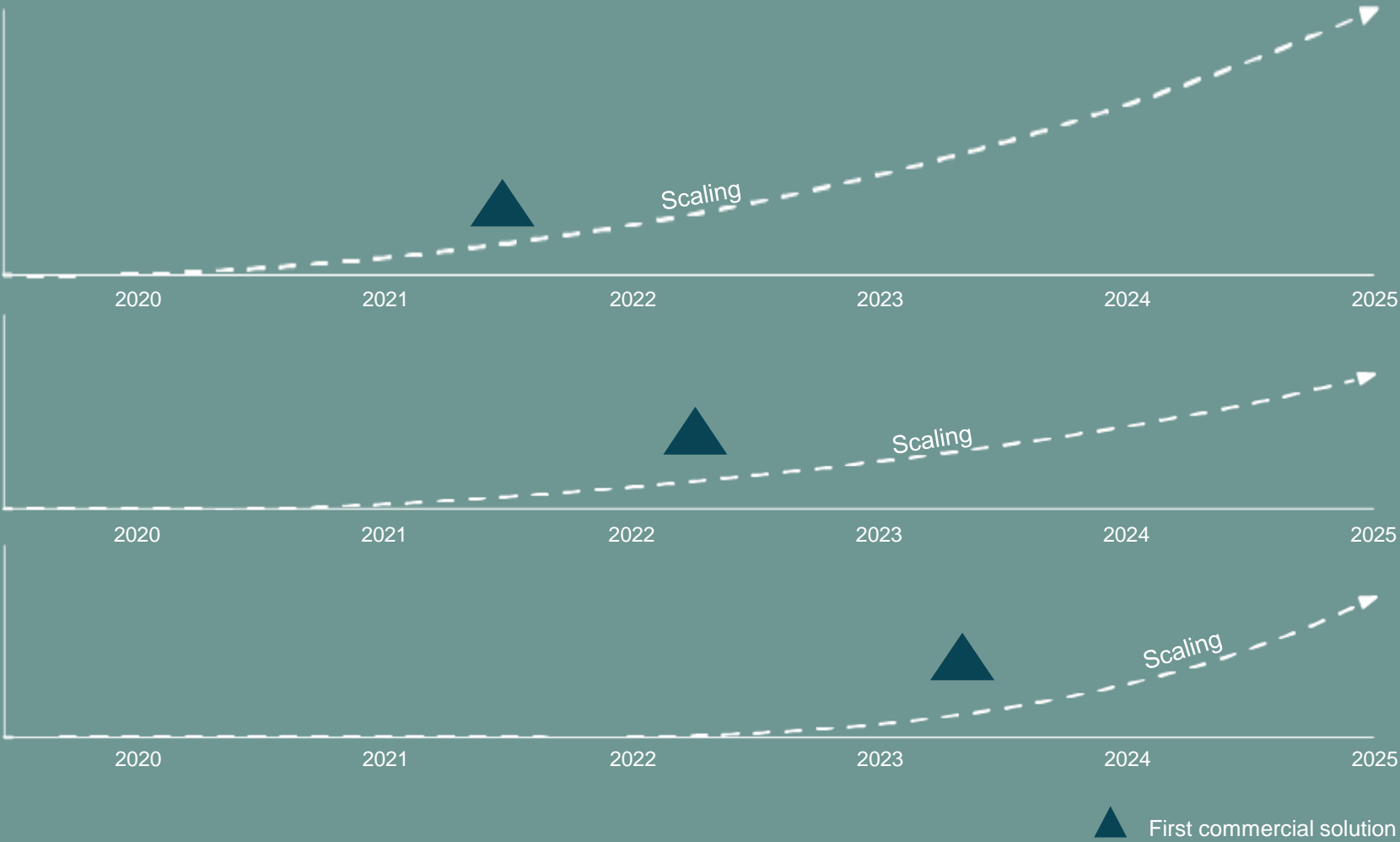
**Fossil free**

**Productive**

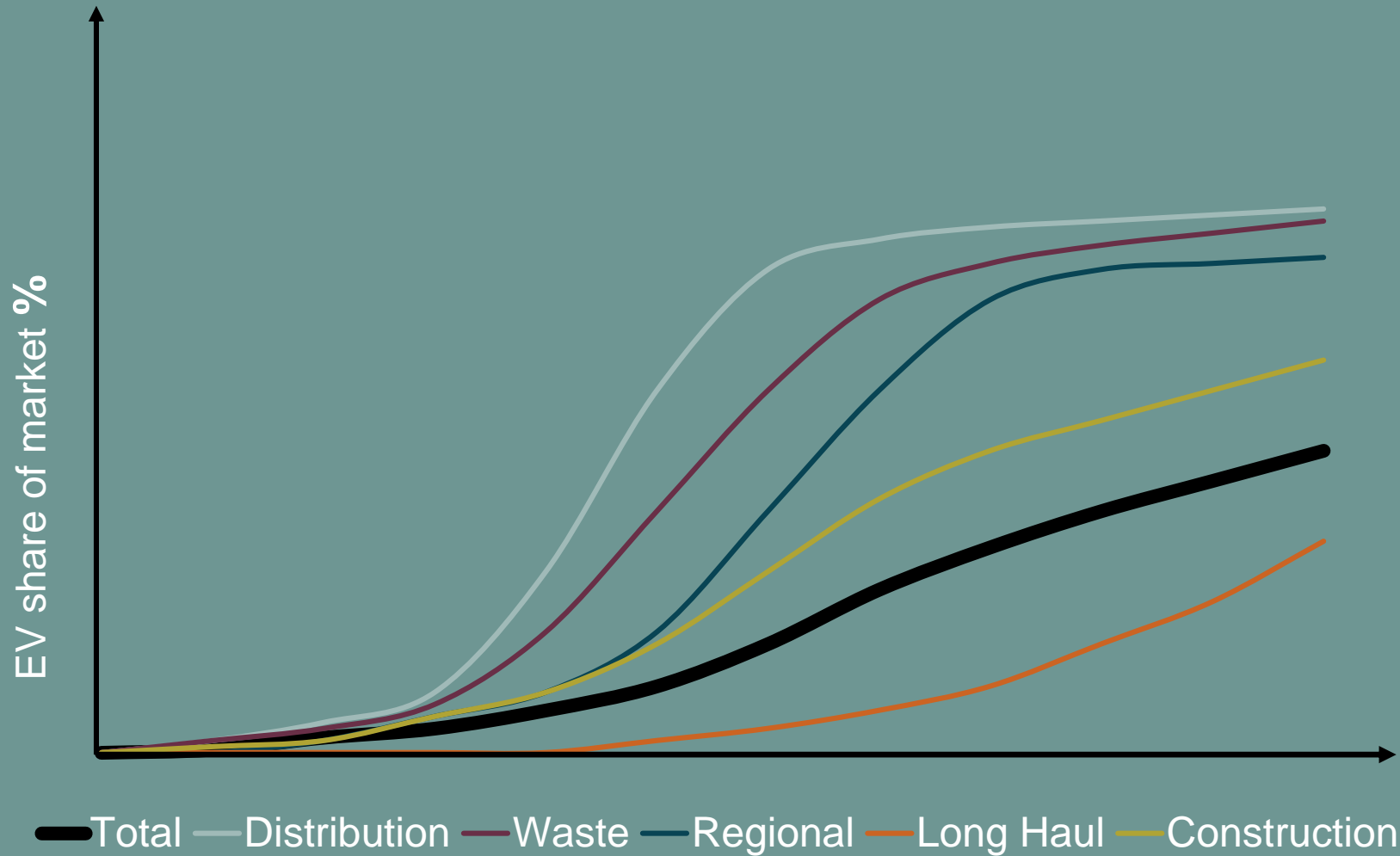
# Our business model – Transport as a Service



# Go-to-market focusing on three strategic customer segments

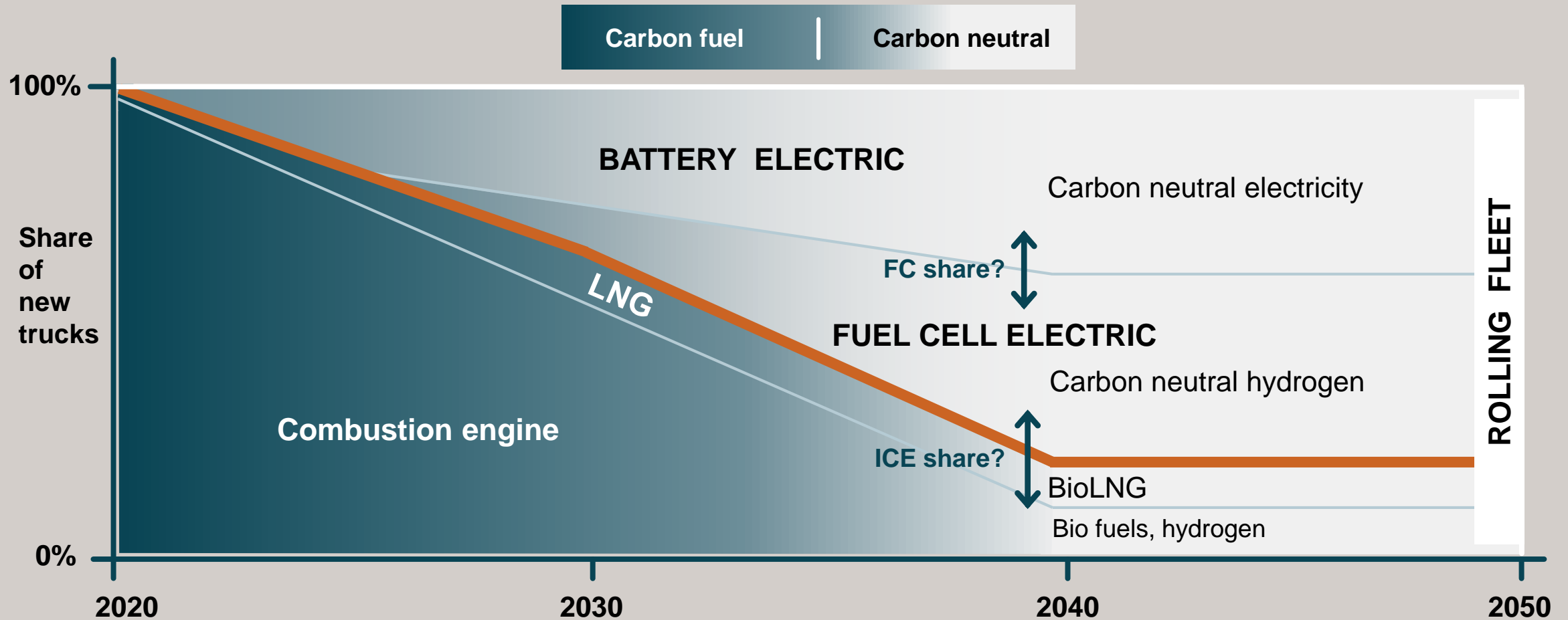


# The Great Shift to electrification



- Segment by segment
- Market by market
- Region by region

# 100% fossil free Volvo Group vehicles from 2040





# Modular architecture approach



# CAST – a modular R&D approach

Combustion engine



Battery electric



Fuel cell electric



# HYDROGEN

H2 FUEL



# JOINING FORCES FOR HYDROGEN-POWERED CO<sub>2</sub>-NEUTRAL TRANSPORTATION

DAIMLER

Daimler Truck

**VOLVO**

VOLVO GROUP

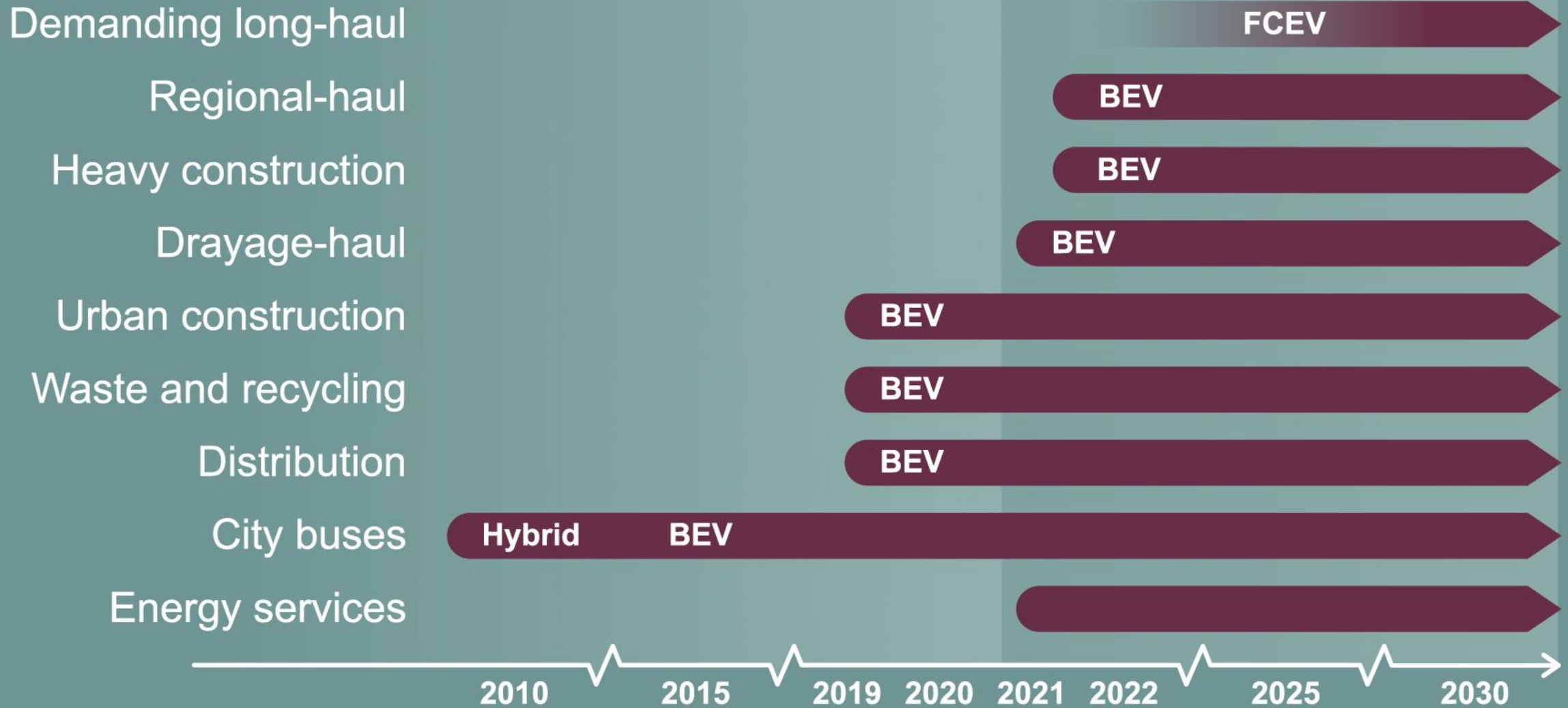
**Technology  
leadership**

**Economy  
of scale**

**Society  
push**

**Infrastructure  
roll-out**

# Fast-paced introduction

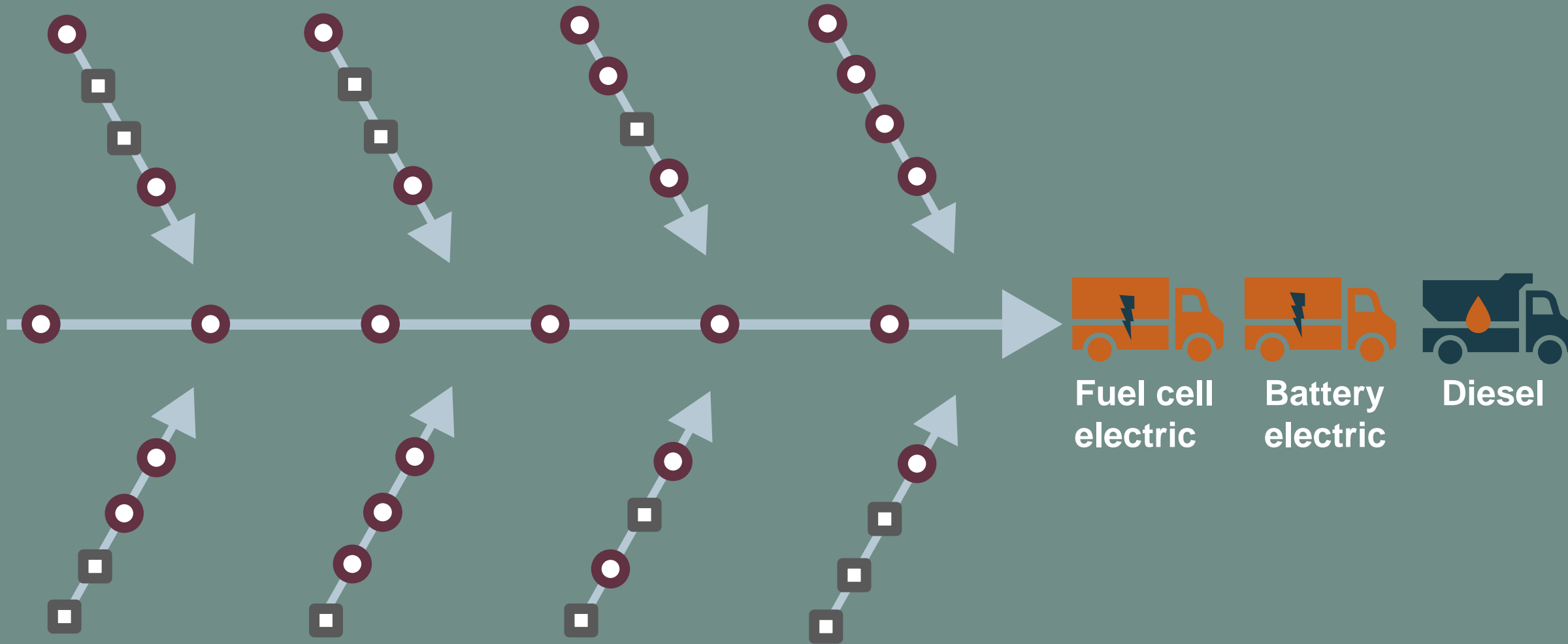


Diesel engine

Electric drive-line

Battery package

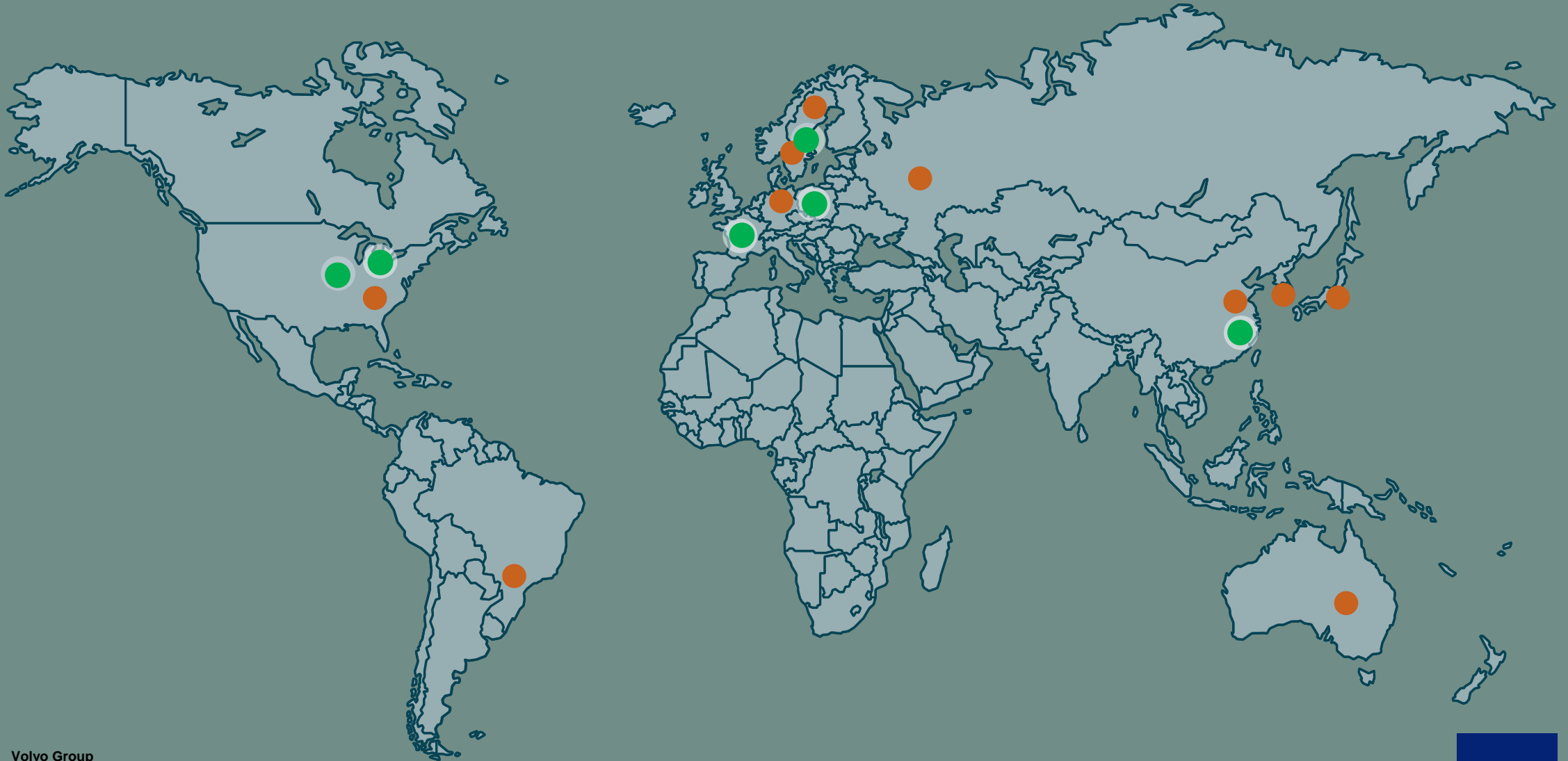
Fuel cell package



*Pre-assembly stations*

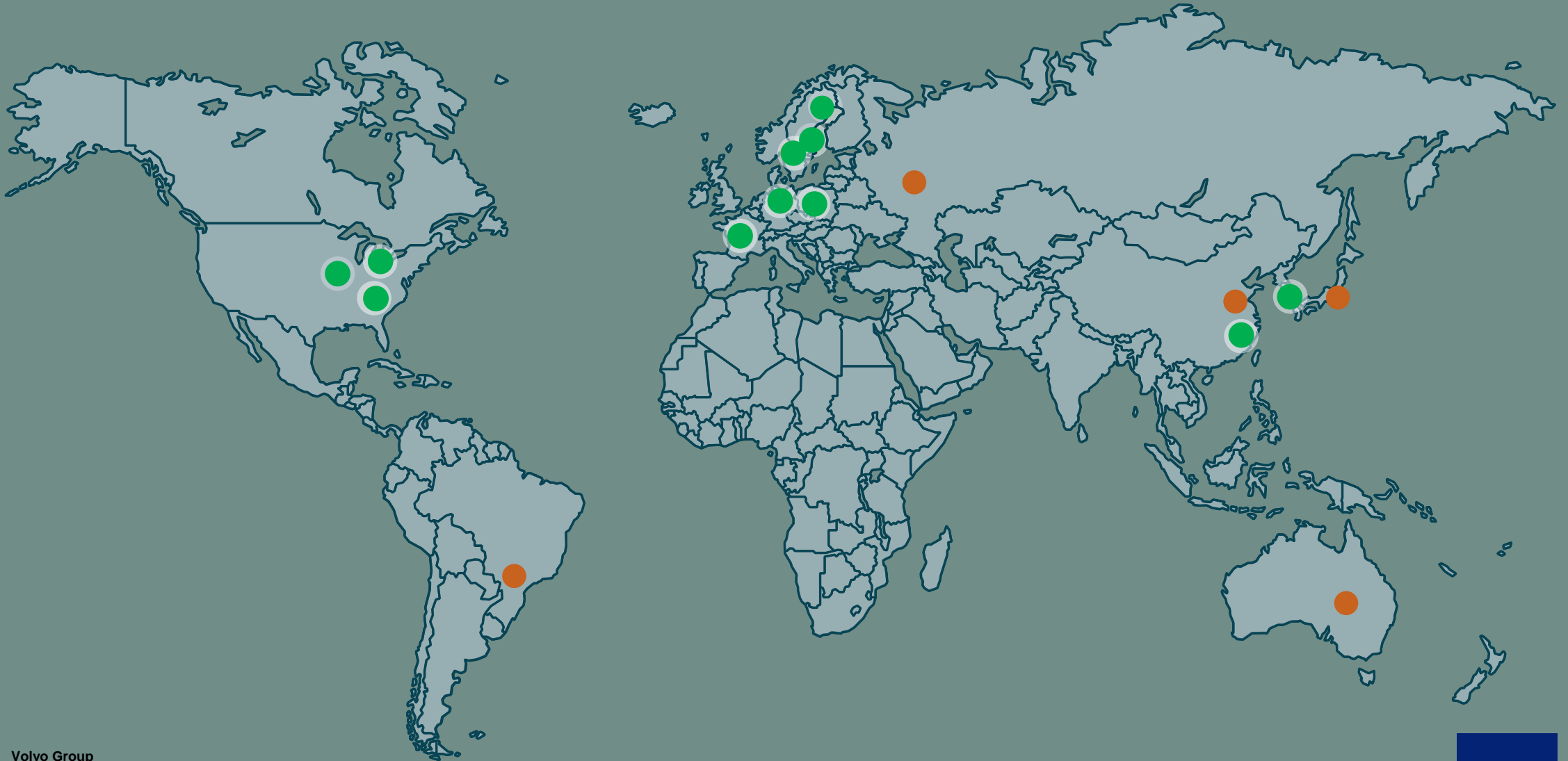
# 2020

## Electric production roll-out



# 2022

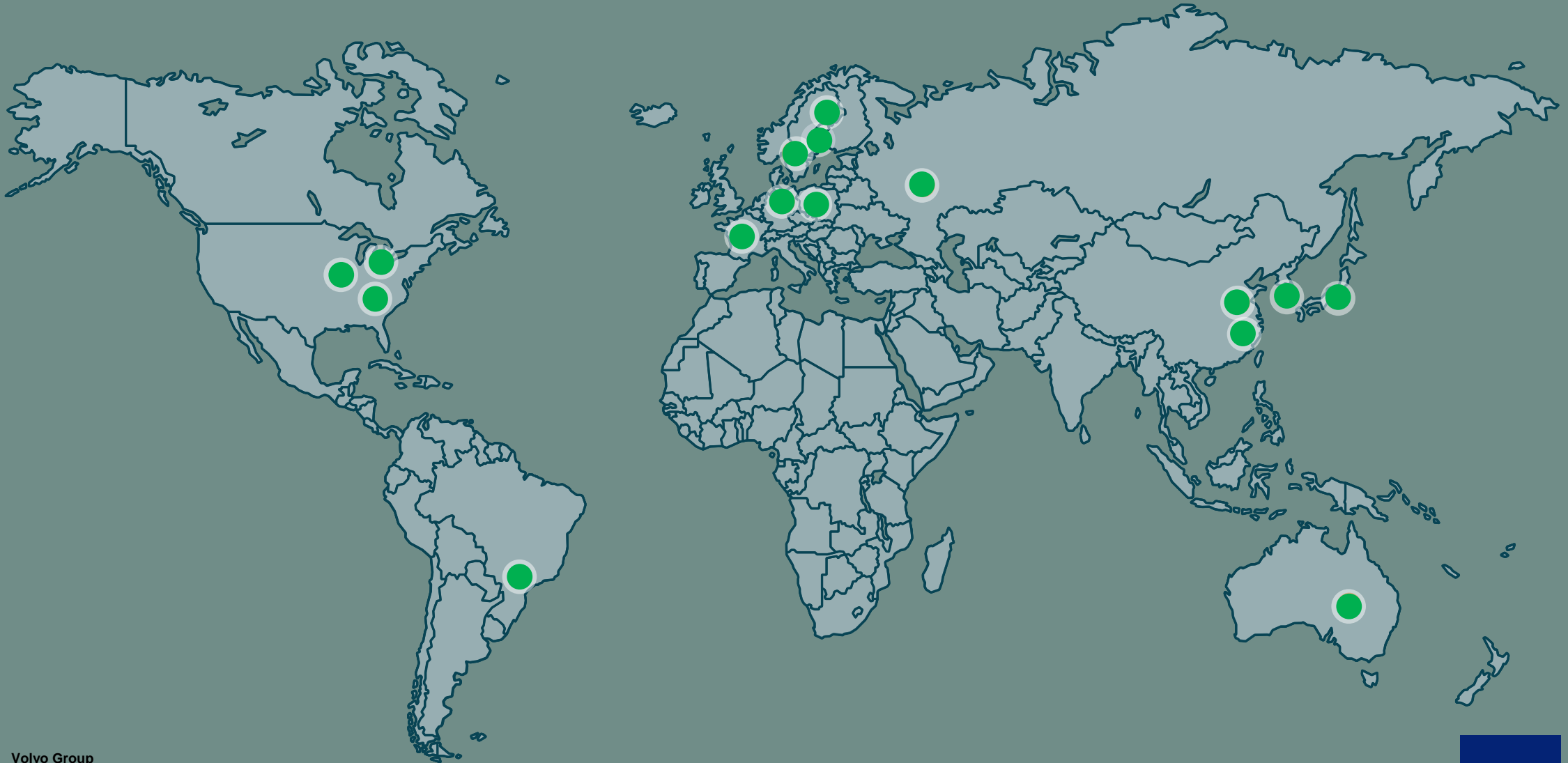
## Electric production roll-out



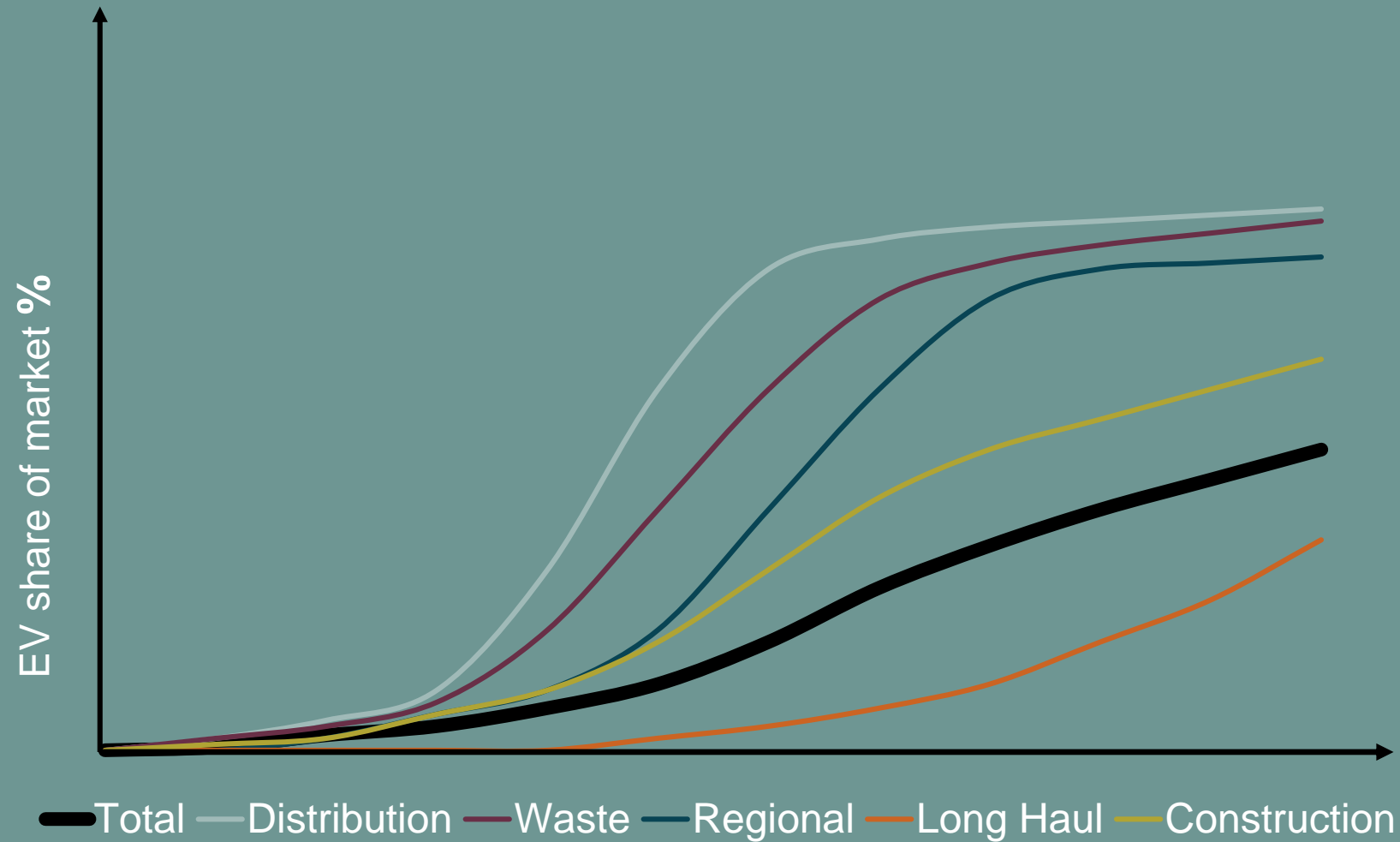


# 2025

## Electric production roll-out



# Volume ramp-up according to demand



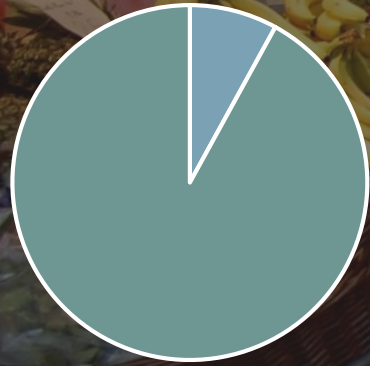
# Leading the transformation towards fossil free transports



# The transformation will accelerate now!

Great opportunity in Nordic food retail – distribution example

Logistics cost  
Food retailer



■ Logistics cost ■ Other cost

CO<sub>2</sub> from logistics  
Food retailer



■ Logistics CO<sub>2</sub> ■ Other CO<sub>2</sub>

Transport cost ~6%  
of total costs

CO<sub>2</sub> from transports is  
around 30%

Electric solution today ~10-15% higher in TCO  
(Total cost increases:  $6\%_{\text{transport cost}} \times 15\%_{\text{TCO}} = 1\%$ )

Total cost increase **+1%** Transport CO<sub>2</sub> **-100%**



Diesel carried milk  
1.00 EUR



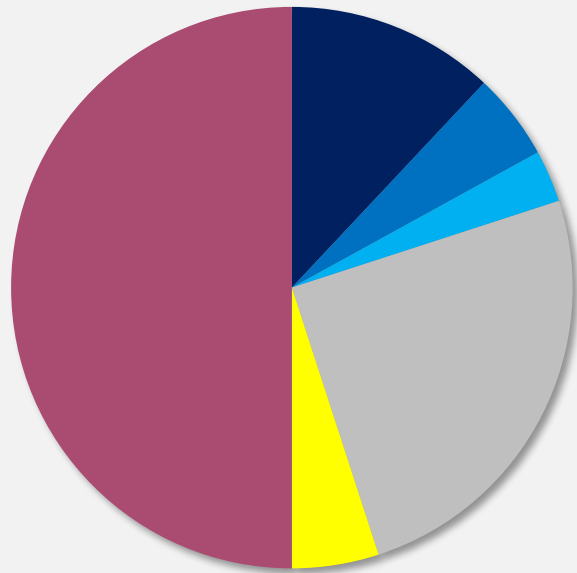
Electric carried milk  
1.01 EUR

Transport CO<sub>2</sub> **-100%**  
End customer choice will be simple

# Shift in mix for transport cost

## NORDIC FOOD RETAIL – DISTRIBUTION EXAMPLE

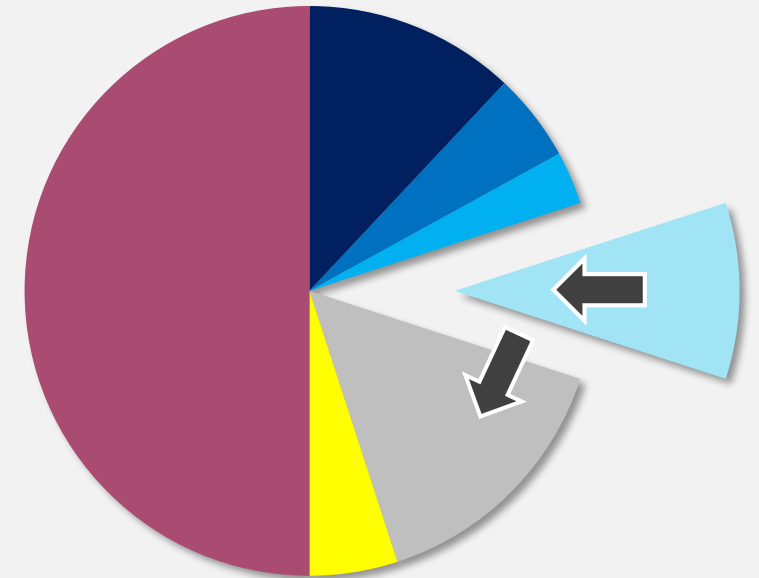
### Diesel



### Logistics cost Food retailer



### Battery electric



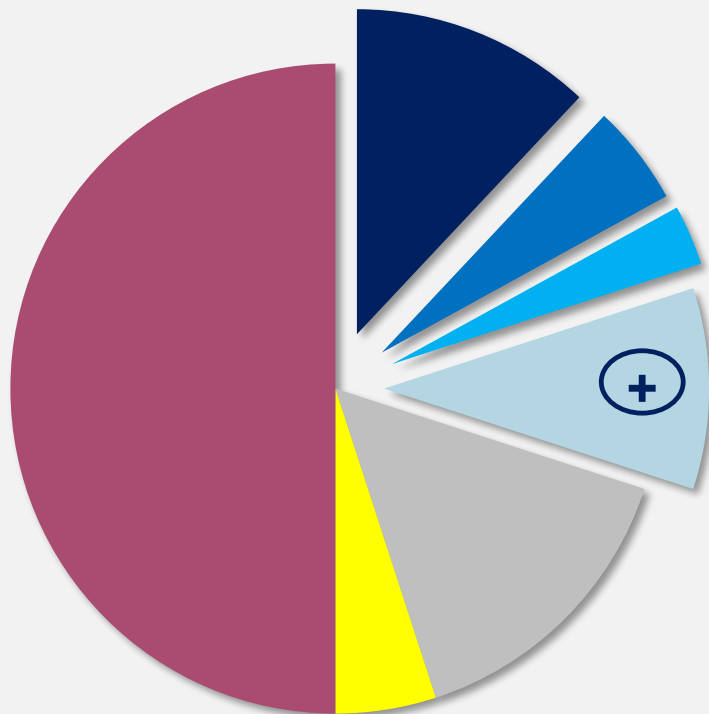
- Vehicle
- Fuel or electricity
- Driver + admin + others

- Repair and maintenance
- Transporter profit

- Financing and insurance
- Battery

# Volvo Group has the assets to create the most competitive solution for the customer

## Battery electric



VEHICLE

REPAIR & MAINTENANCE

BATTERY SYSTEMS

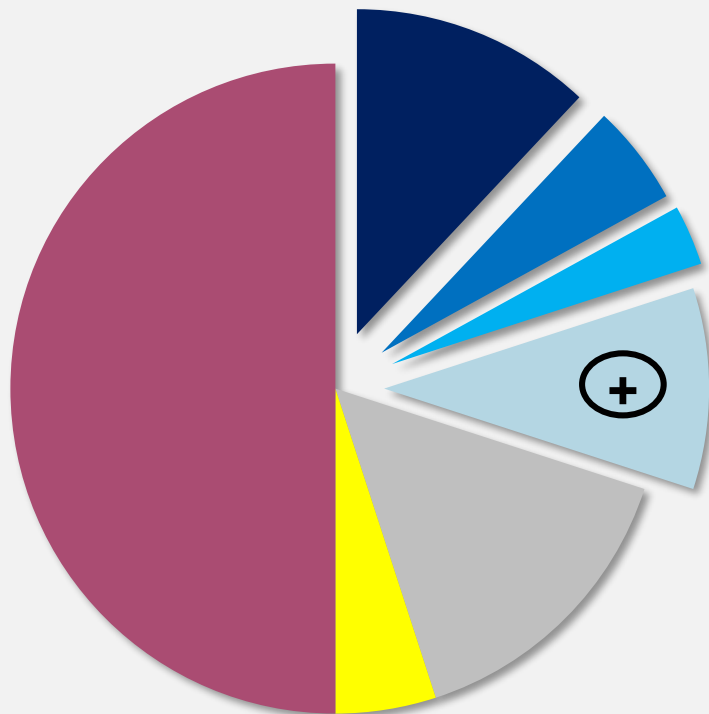
FINANCING & INSURANCE

### EQUIPMENT-as-a-SERVICE

- ✓ Uptime
- ✓ Cost / km
- ✓ Safe
- ✓ Productive
- ✓ CO<sub>2</sub> free
- ✓ Piece of mind

# Volvo Group has the assets to create the most competitive solution for the customer

## Battery electric



### VEHICLE

- ✓ Application excellence
- ✓ Tailor-made for productivity and uptime
- ✓ Modular product system - CAST
- ✓ Ramp-up of volumes with scale
- ✓ Used equipment and recycling

### + BATTERY SYSTEMS

- + Application optimization for range, life-length and weight
- + Connected solutions
- + Established partnerships
- + Charging solutions
- + Second life and recycling

### REPAIR & MAINTENANCE

- ✓ Service network density 24/7
- ✓ Service and uptime contracts
- ✓ Connected solutions
- ✓ Trained and experienced staff

### FINANCING & INSURANCE

- ✓ **Volvo Financial Services**
  - ✓ Existing business models
  - ✓ Infrastructure
  - ✓ Customer knowledge

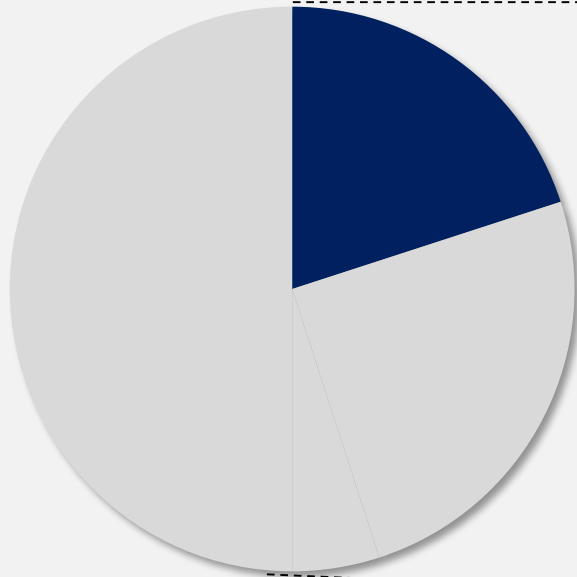
## EQUIPMENT-as-a-SERVICE

- ✓ Uptime
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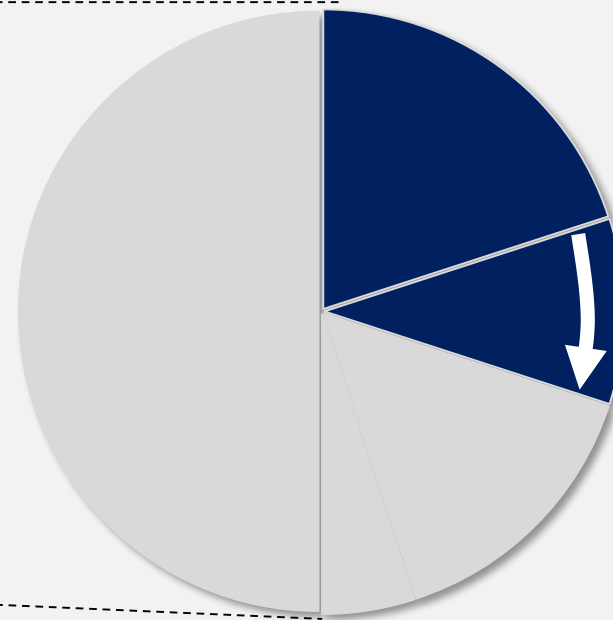


# Step change in our life-cycle revenues

Diesel



Battery electric



Life-cycle revenue per unit increases with  
**>50%**

# Opportunity of a century!

## GROWTH

- Step change in market share
- Higher life cycle revenue per unit  
>1.5x for electric vehicles  
> 5x for autonomous solutions
- >35% electric vehicle sales by 2030
- Underlying transport demand

## RESILIENCE

- EV gives step change in service contract penetration and duration
- >50% of Group sales from service by 2030



Leading the way to a fossil free society by 2050



**Opportunity  
of a century!**

**Stronger growth  
and resilience**

**VOLVO**  
VOLVO GROUP