

BORGWARNER

# Automotive in Transition to Sustainable Mobility

Harry L. Husted  
CTO, BorgWarner

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# Choose your fuel

Electric vehicle equivalents, real-world



\$3.79 / gallon  
20-30 mpg  
~15-gallon tank



\$5.14\* / gallon  
107 MPGe  
2.3 gallon "tank"



\$12.93\* / gallon



\$0.00 / gallon

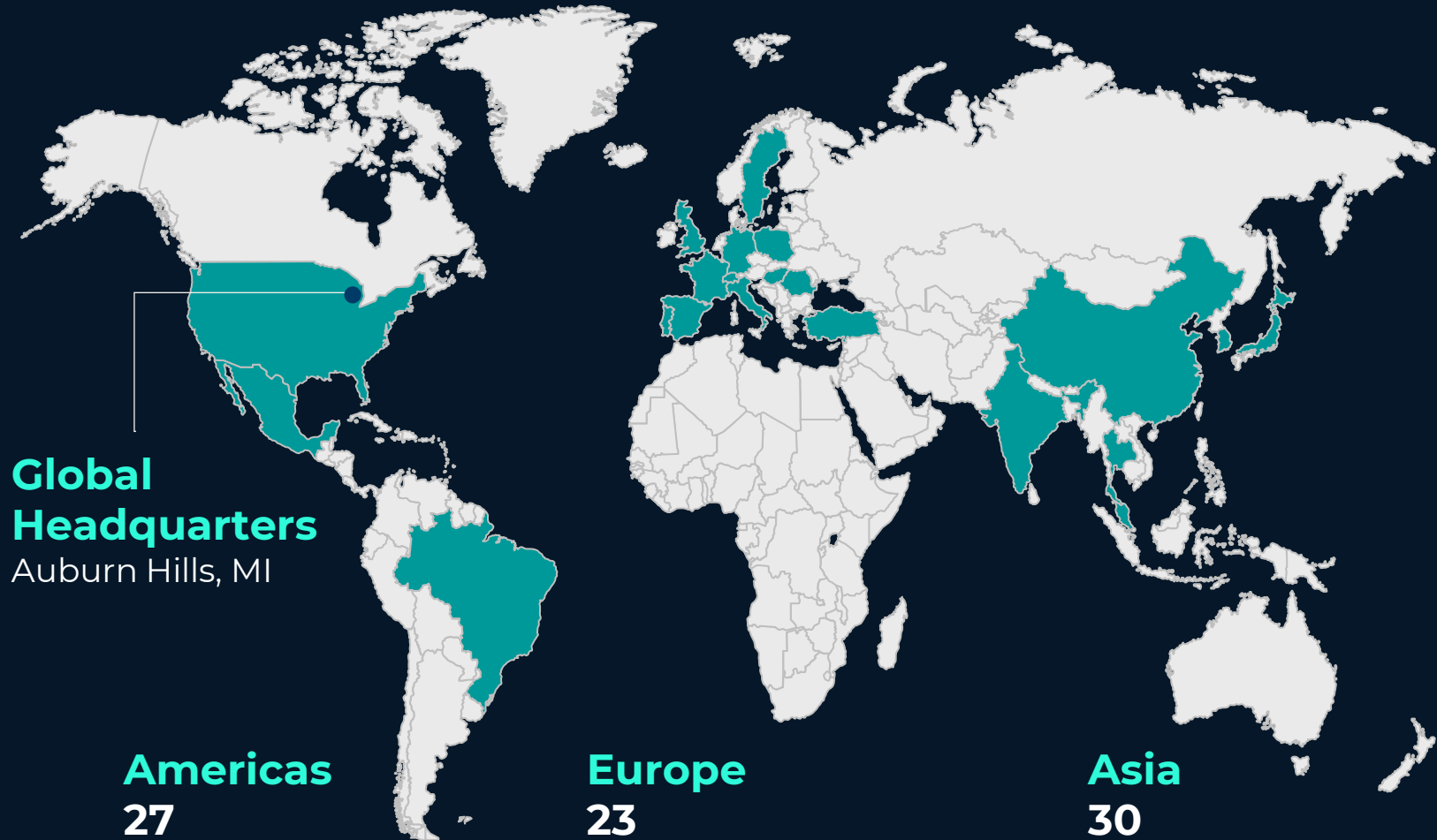
# A Tier 1 Perspective



**61**  
Manufacturing  
Locations



**~38,000**  
Employees



**Americas**  
**27**  
Locations

**Europe**  
**23**  
Locations

**Asia**  
**30**  
Locations

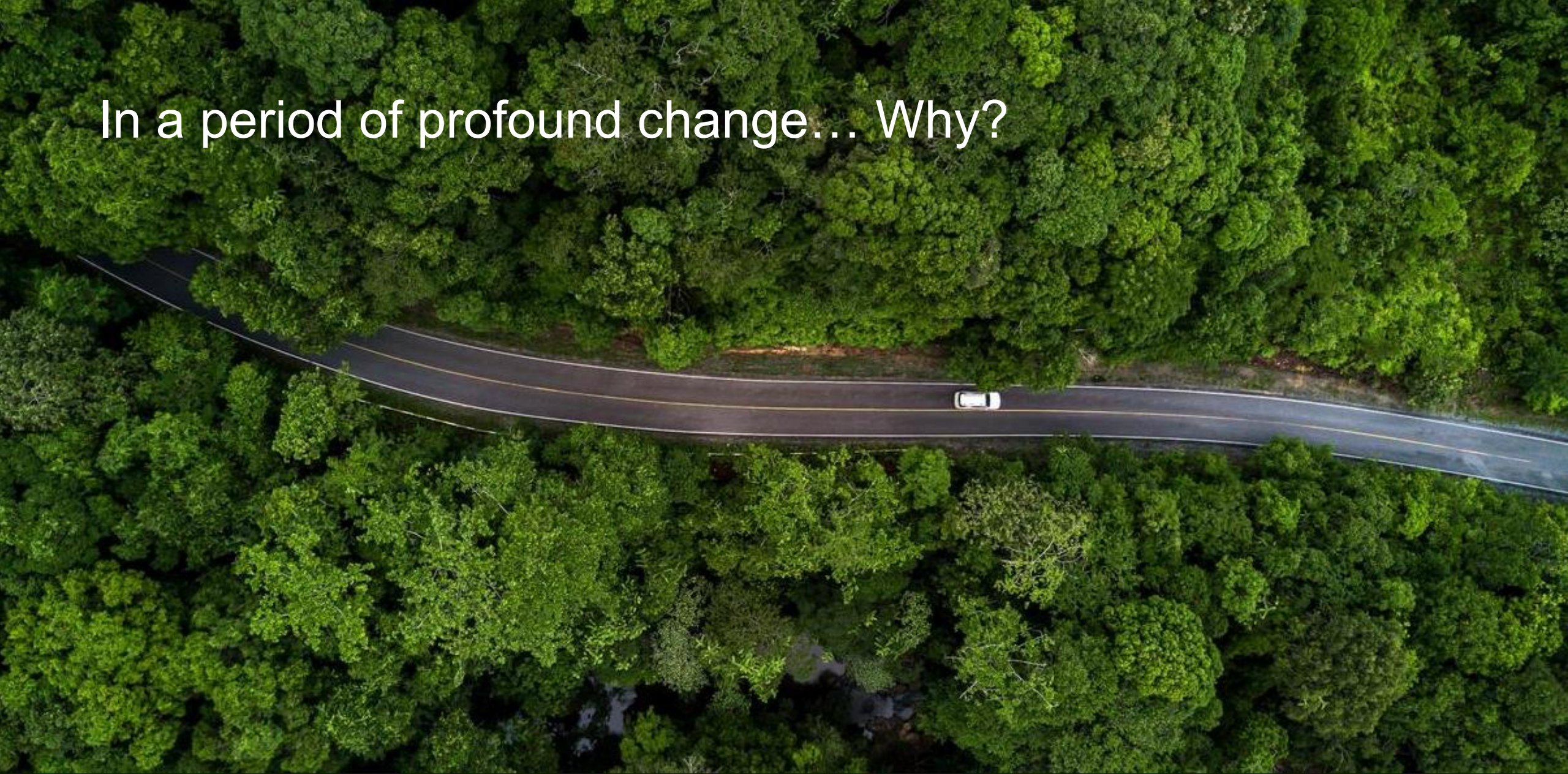


**19**  
Technical Centers



**~7,500**  
Engineers

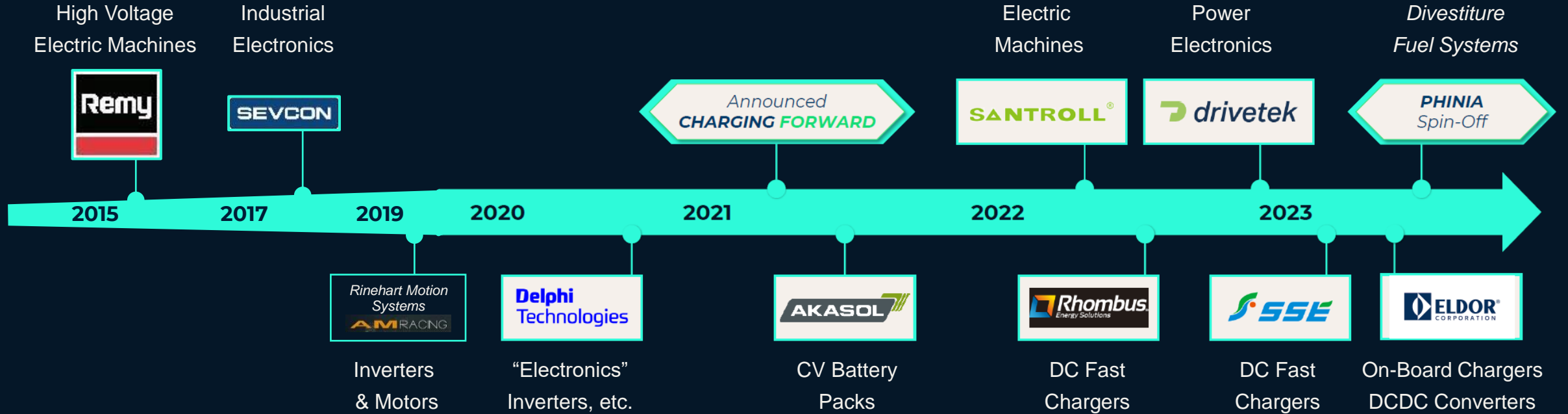
In a period of profound change... Why?



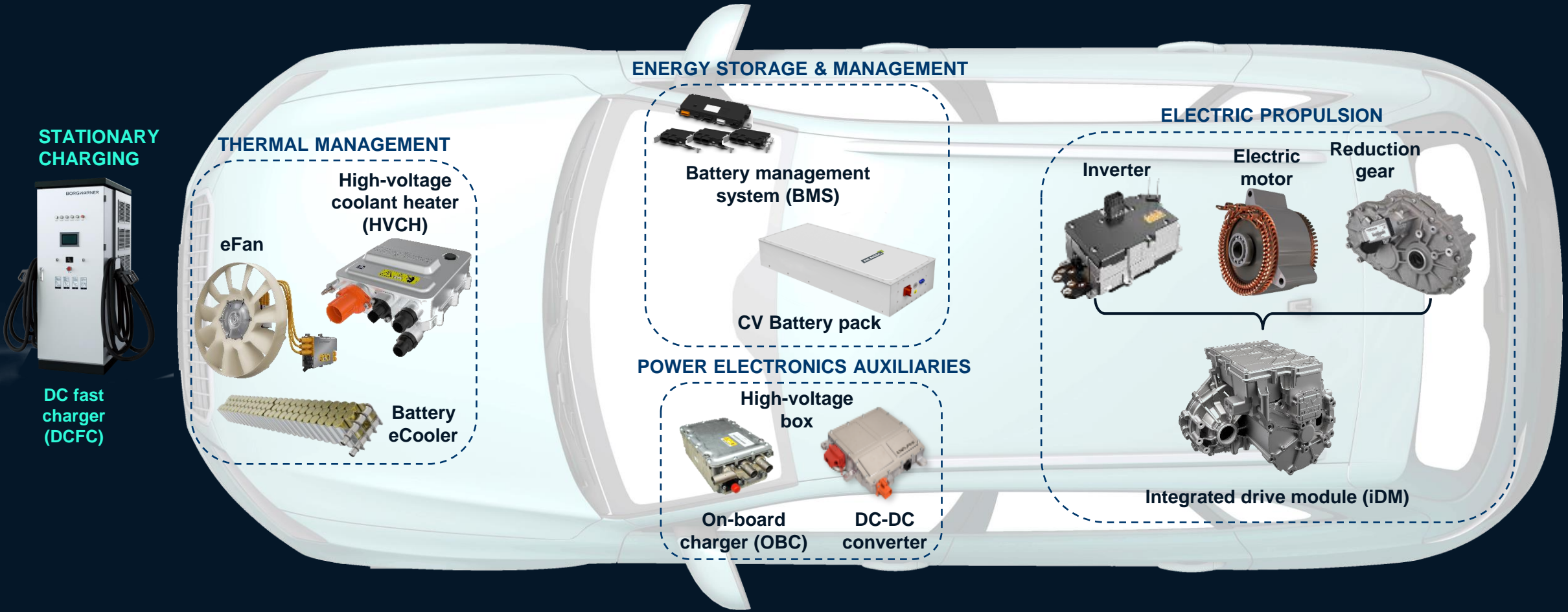
# Many Stakeholders in this Transition

- ▶ Universities, Labs, Institutes
- ▶ Electricity Generation
- ▶ Electricity Transmission & Distribution
- ▶ Charging: DC Fast Charging and AC Level 2
- ▶ Vehicle Manufacturers & the Supply Community
- ▶ Dealers
- ▶ Vehicle purchasers & Drivers
- ▶ Vehicle Repair (Component Remanufacture, Reuse)
- ▶ End-of-life recycling
- ▶ ...

# Major Transition in a Product Portfolio



# Result: a Wide-Ranging Electric Vehicle Portfolio



# “Well”-to-Wheels Electric Sustainable Mobility

Clean, Sustainable  
Energy Generation & Transmission



Solar



Wind



Grid Transmission  
& Distribution

Fast Chargers  
Available & Reliable



Stationary  
Charger

Electric Propulsion Systems  
ready to use Sustainable Energy



Battery Pack



Integrated  
Drive  
Module



Torque  
to the  
wheels



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