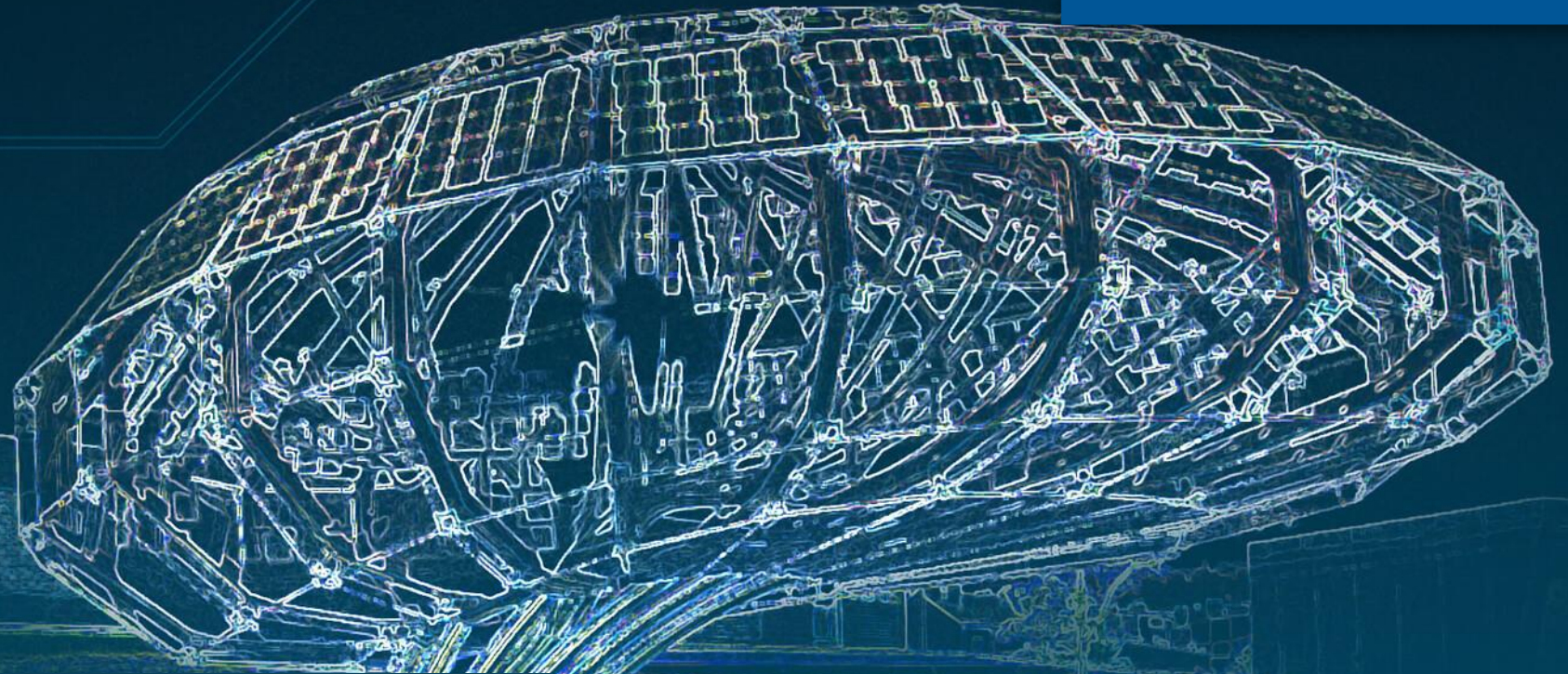


AVL



AVL Japan K.K.



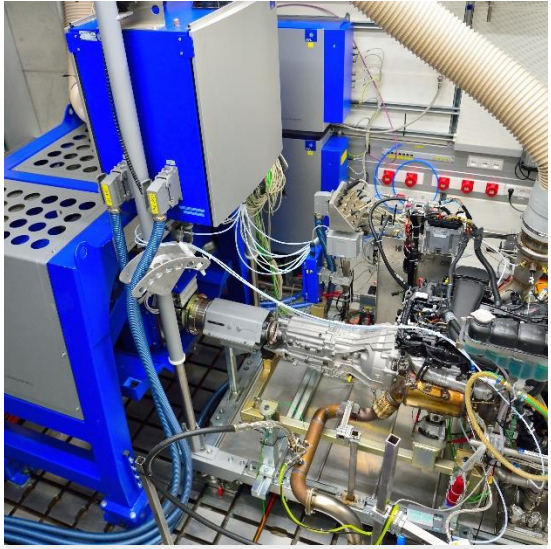
# AVL in Japan

Global Partner for Global OEMs

# Facilities – Japan Technical Center (JTC)



**4 Dyno Powertrain & Vehicle Testbed (PTTB)**



**Passenger Car Engine Testbed (ETB)**



**Commercial Vehicle Engine Testbed (ETB)**



**Virtual Testbed (HiL)**

## Development & Calibration

### Calibration

- Performance and Emission
- Advanced driveability
- Hybrid system
- Drivetrain/Transmission
- OBD

### Development

- Advanced mechanical development
- Model-based development



## Design & Simulation

### Design

- System/Component
- New powertrain
- SOP

### Simulation

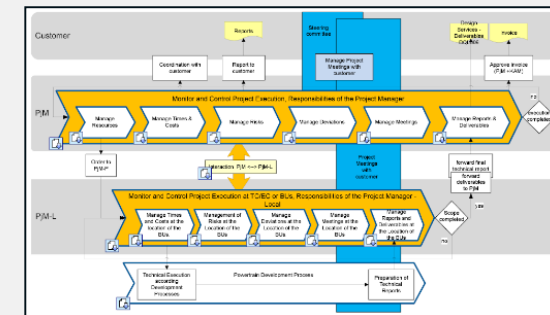
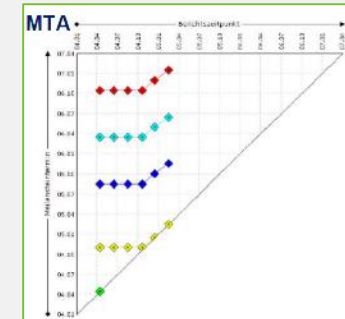
- CAE analysis



## Project Management

### Project Management

- Project Management
- Liaison Management



# Electrification in Japan

## Japan Promotes Electrified Vehicle (xEV) Strategy ahead of 2050



Source: <https://www.meti.go.jp/english/mobile/2018/20180911001en.html>

- By 2050, Japan aims to realize a **“Well-to-Wheel Zero Emission” policy** in line with global efforts to eliminate emissions, with a focus on energy supply and vehicle innovation.
- At the moment, in Japan the market share for **xEVs is already at approx. 30%.**


# .... and AVL is ready to support this strategy



**Teamwork**  
WITHIN AND THROUGHOUT  
ALL TECHNICAL CENTERS.



**Global knowledge**  
THROUGH  
WORLDWIDE EXCHANGE.



**The largest  
powertrain  
engineering  
network  
worldwide**

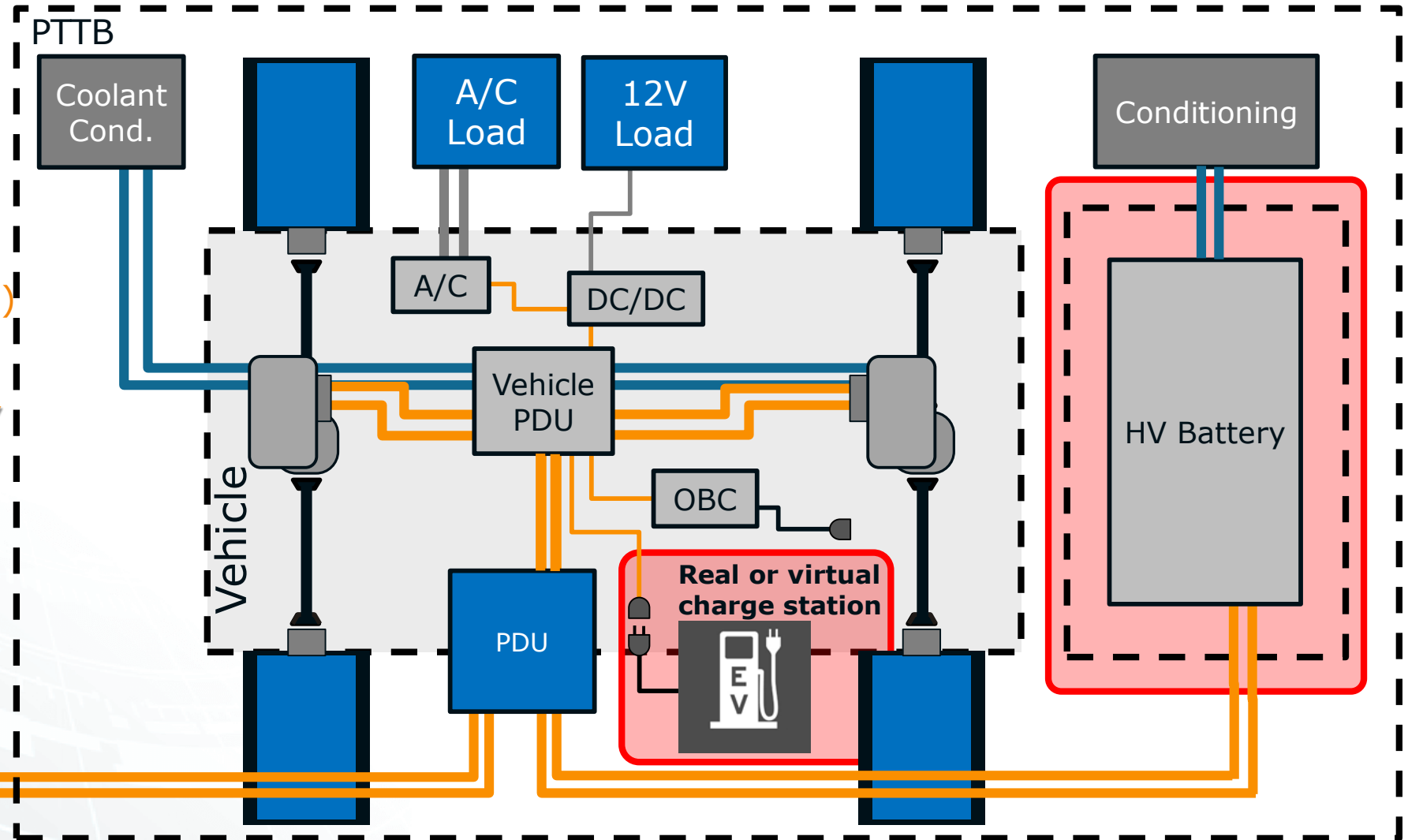
# PTTB - Electrification

## E-powertrain test

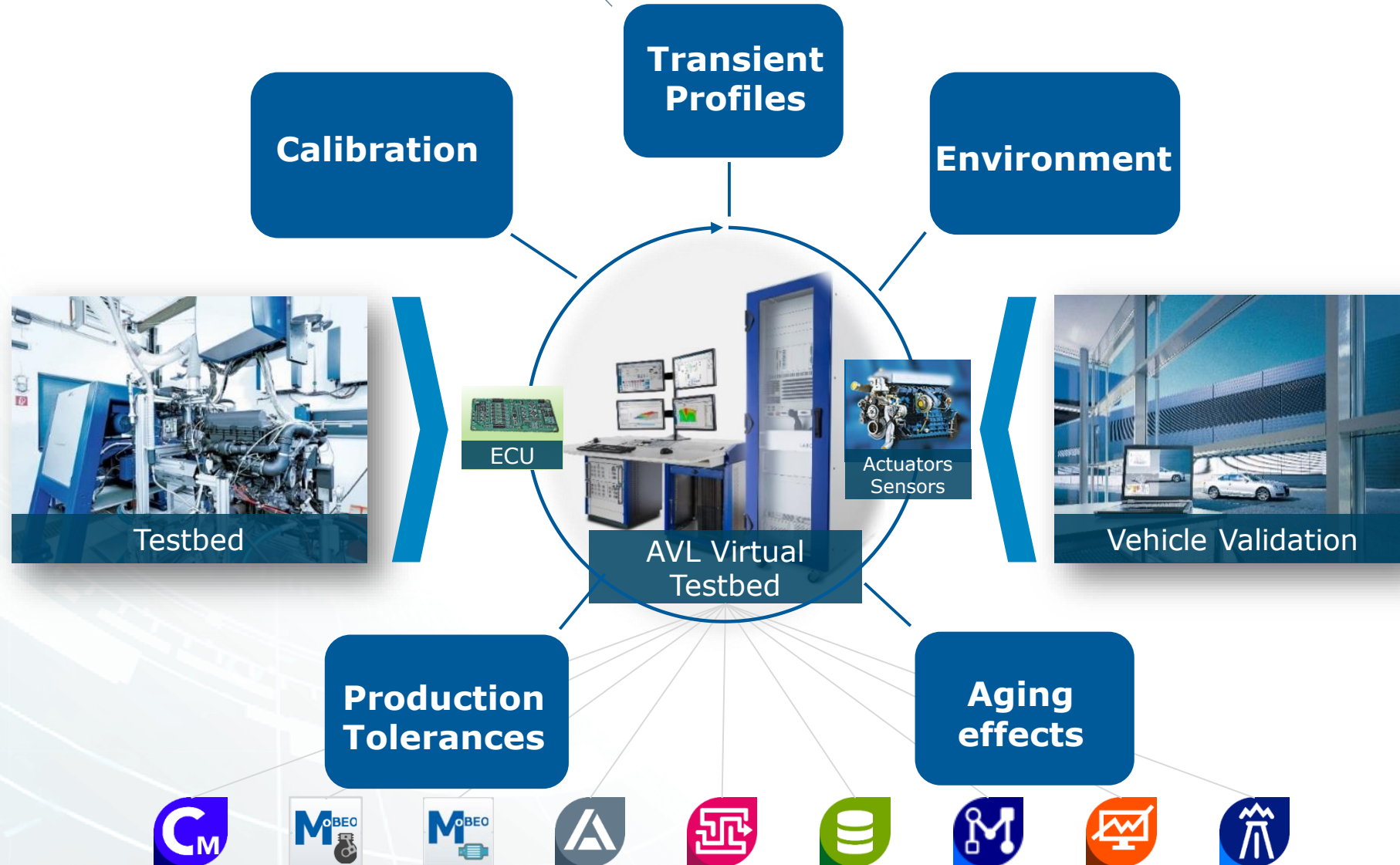
- Four Wheel Dynos
- A/C Load/Conditioning
- 12V Load
- Coolant Conditioning
- HV Battery
- Power Distribution Unit(PDU)
- Charging Station

⇒ "E-Integration Test system"

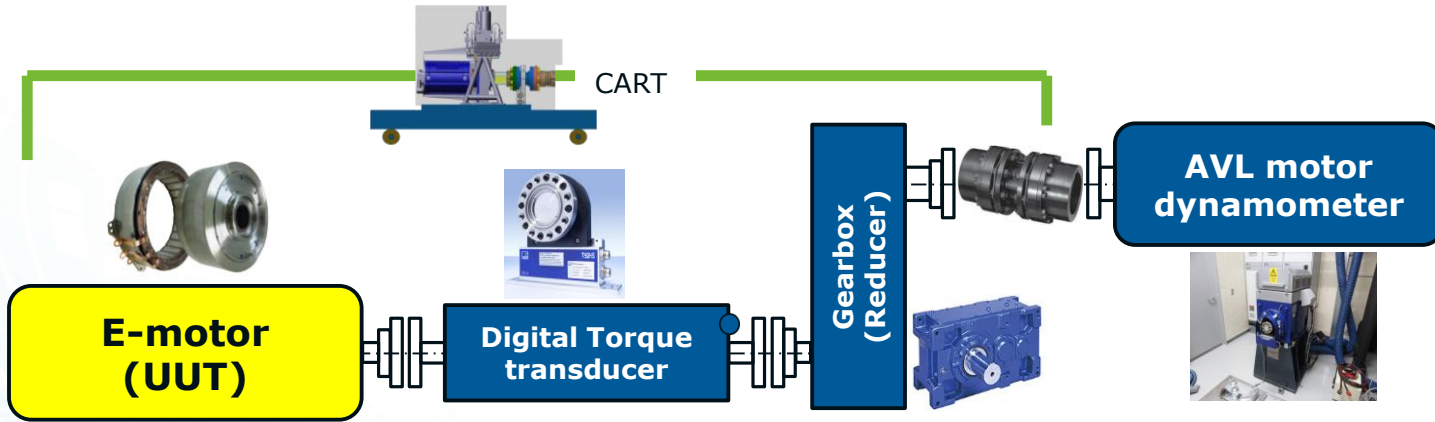
AVL E-Storage



# Virtual Testbed Engineering



# Two approaches for E-Motor testing



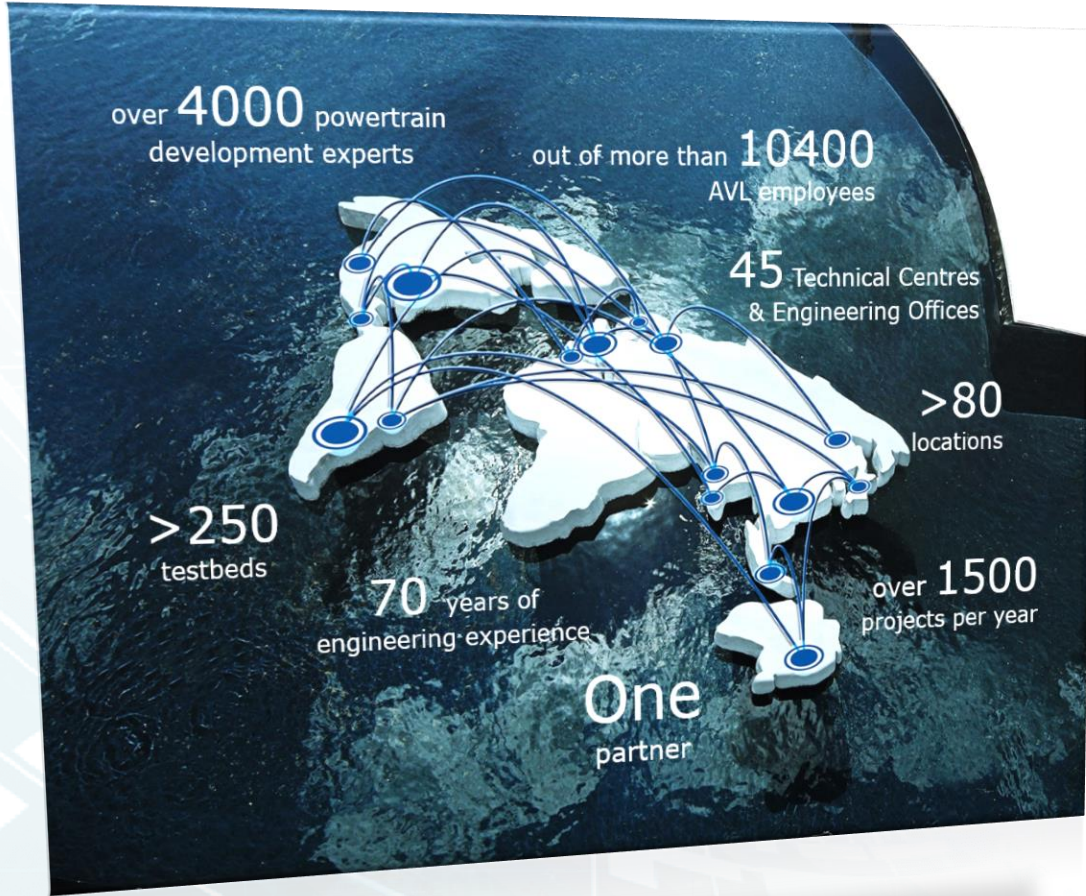
1. Gearbox solution

2. E-Motor testbed solution





# Global & local network



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ジャパンテクニカルセンター

川崎アプリケーションセンター

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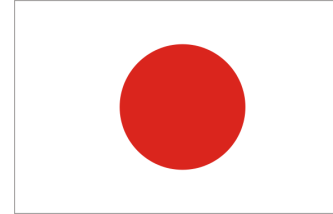
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