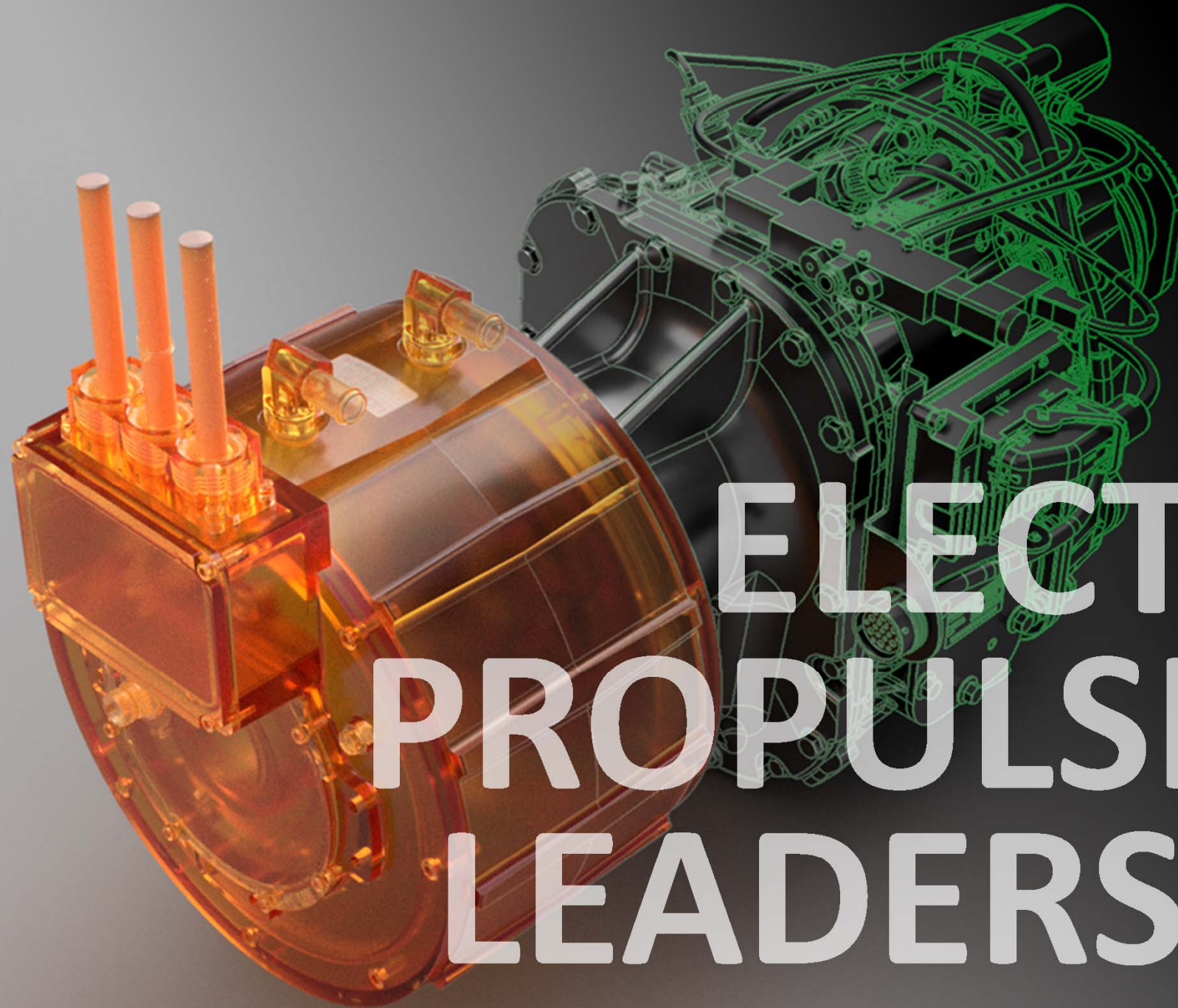


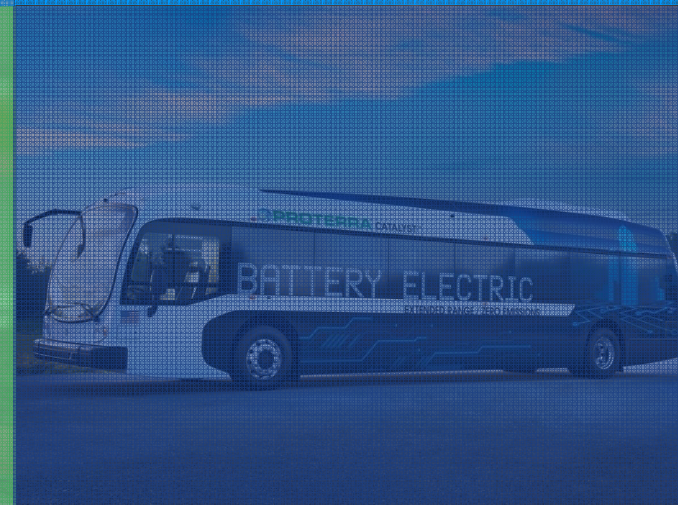
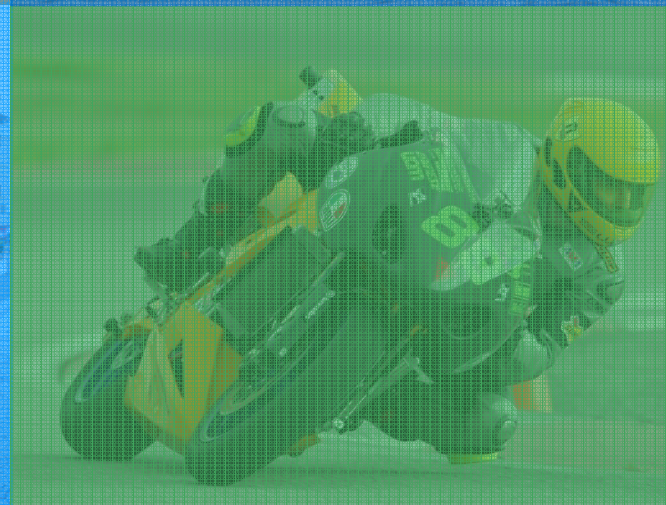


50 YEARS OF

**ELECTRIC
PROPULSION
LEADERSHIP**

Forward-Looking Statements

This presentation contains statements that constitute “forward-looking statements” within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act. These statements appear in a number of places in this presentation and include statements regarding our plans, beliefs or current expectations; including those plans, beliefs and expectations of our officers and directors with respect to, among other things, gaining required certifications, UQM’s ability to successfully gain access to the Chinese electric vehicle market, new product developments, future orders to be received from our customers, sales of products from inventory, future financial results, liquidity and the continued growth of the electric-powered vehicle industry. Important Risk Factors that could cause actual results to differ from those contained in the forward-looking statements are contained in our Form 10-K and Forms 10-Q, which are available through our website at www.uqm.com or at www.sec.gov.



Overview

1. About UQM
2. The Market
3. Market Strategy
4. Global Expansion
5. Financial Opportunities



Performance Vehicles Powered by UQM



*Rolls Royce Powered by UQM



*Audi e-Tron Powered by UQM



*eRuf Porsche Powered by UQM



* **2017** Renault Trezor Demo Vehicle MAC/UQM



***2017** Renault Zoe Sport Demo Vehicle MAC/UQM



*QRR Race Car, Powered by UQM

About UQM

- Design and manufacture propulsion systems for electric vehicles
- Founded in 1967
- Based in Longmont, Colorado
- Transportation + Tech crossover:
 - Strategically located between Silicon Valley and Detroit
 - Experience in auto, commercial vehicle, high tech
- Extensive industry knowledge
- Strong management experience:

BALLARD

BEHR

Continental



LINAMAR
Power to Perform

 **MOTOROLA**
intelligence everywhere™

spectralink
The WorkSmart Company

 **VIA Motors**
A Better Way to Go.



SIEMENS





UQM Manufacturing

- 130,000 sq. ft. headquarters, engineering and manufacturing
- High capacity to support OEM requirements
- Certifications:
 - IATF 16949:2018
 - ISO 9001:2015
 - ISO 14001:2015



Audi



PROTERRA



JOHN DEERE



BALLARD



MERITOR

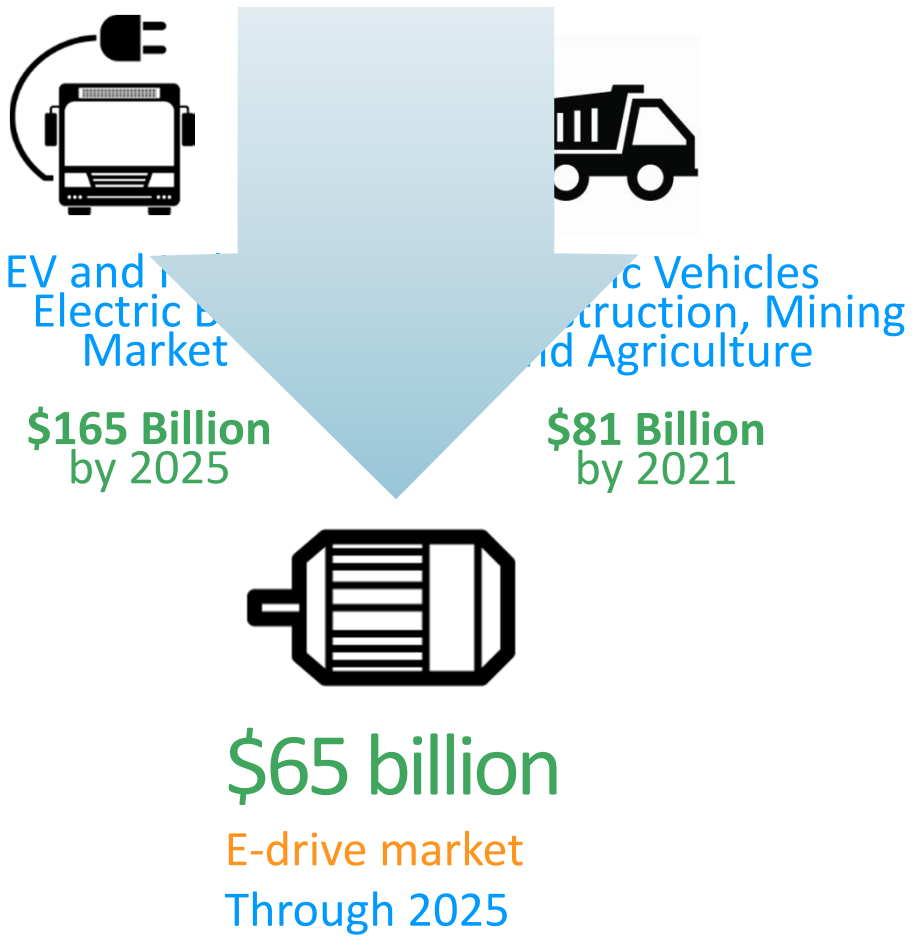


50 Years of Unrivalled Experience

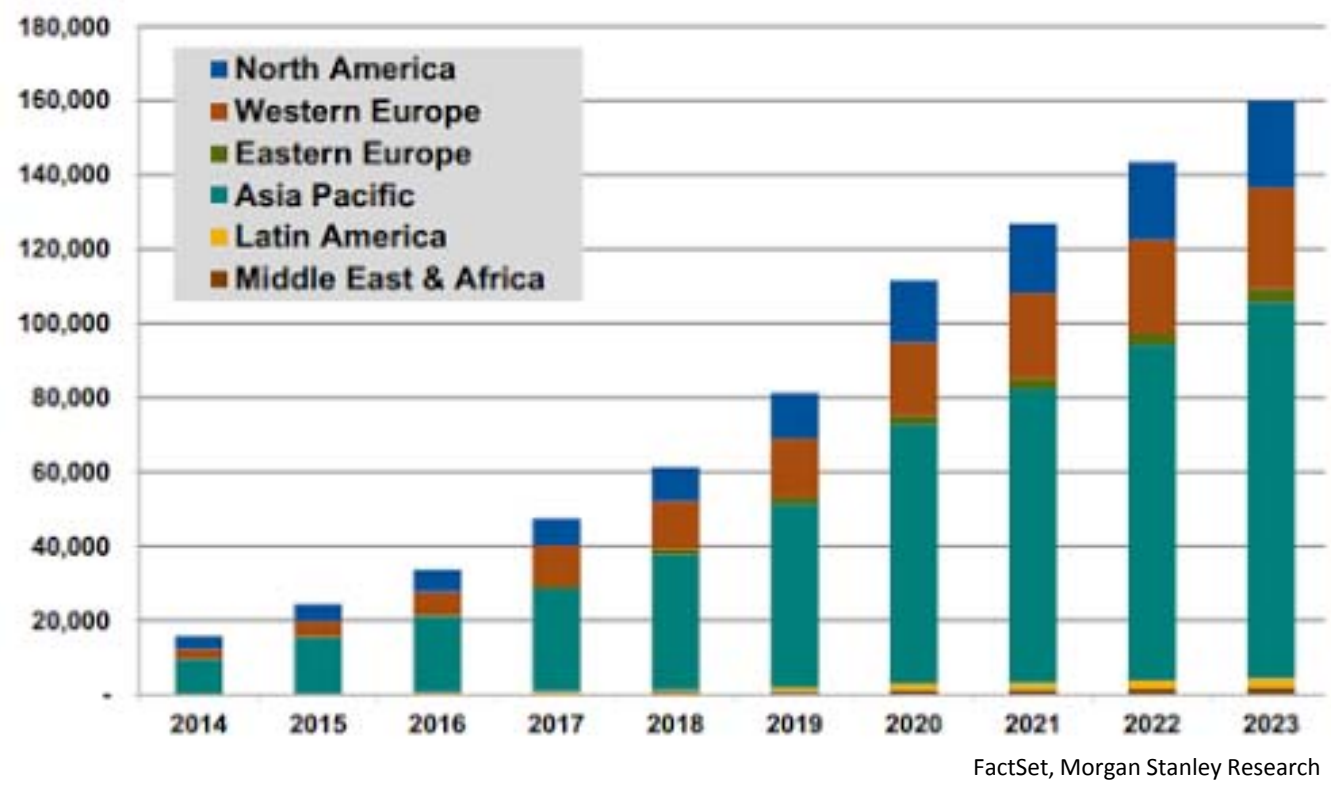
The Market



Global EV Sales Growth



Annual Mid & Heavy Duty Electric Drive Sales by Region
World Markets: 2014-2023



Market is still being driven by China but North America, India and Europe are also starting to see significant growth towards electrification.

E-Drive Market

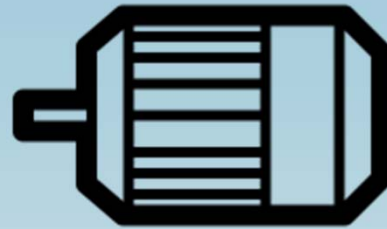


Electric Vehicles
for Construction,
Mining and
Agriculture

\$81 Billion
by 2021

85%

lower battery cost
2010-2025



\$65 billion
E-drive market
through 2025



EV and Hybrid
Electric Bus
Market

\$165 Billion
by 2025



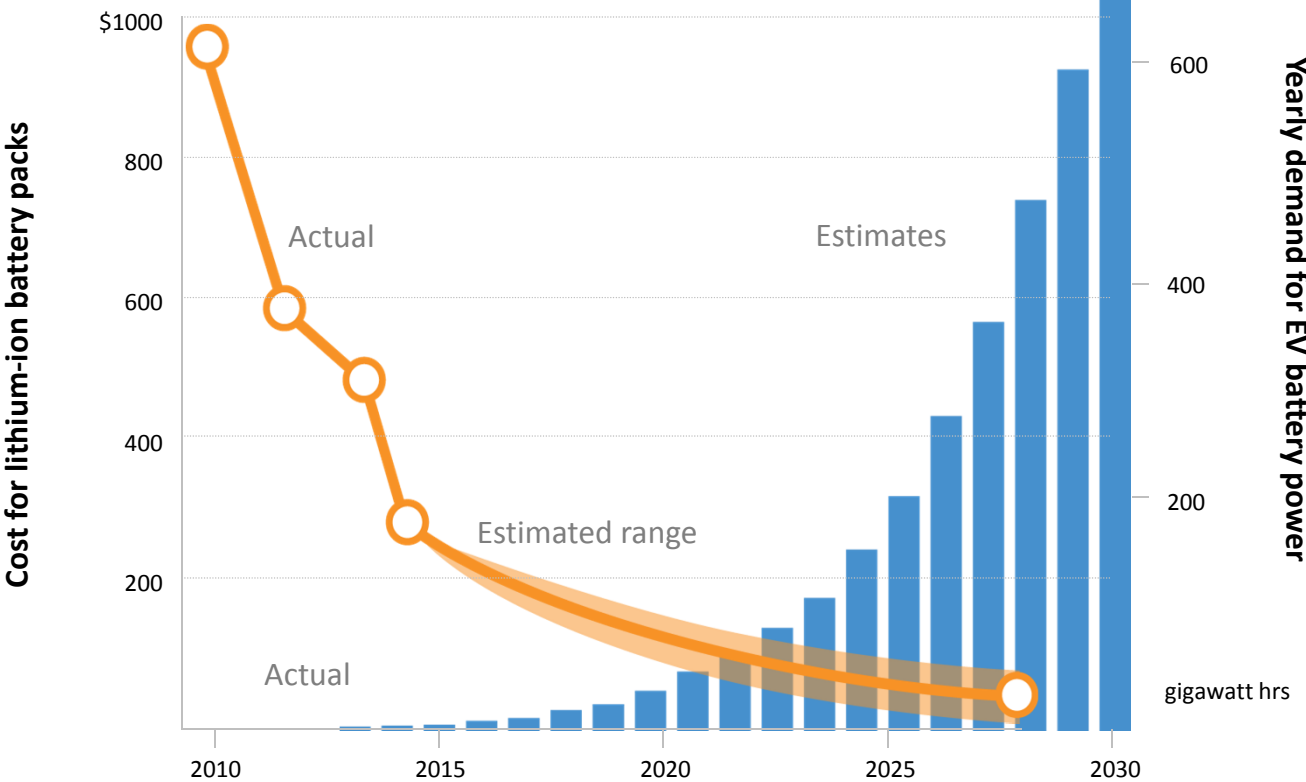
620%

EV sales growth
through 2025

The perfect mix of global market drivers

Market Drivers

 85% Reduction in Battery Costs



Commercial Vehicle

- ✓ **Cost of ownership:** 4 MPG vs. 21 MPGe
425% Improvement 
- ✓ **Lifetime Fuel Costs:** 78% Improvement 
- ✓ **Maintenance Costs:** \$1/mile vs. \$.06/mile
94% Improvement 
- ✓ **Emissions: 94% Improvement**
 **0** CHG
CO₂
CH₄
NO_x
HC
PM
BC

Strong EV growth driven by market demand

Global Commercial EV Market Trends

- **Large commercial vehicles consume 30 times more fuel than average sized cars, so these vehicles are leading the EV market**
 - This year, the volume of fuel buses taken off the market may rise 37 percent to 279,000 barrels a day, about as much oil as Greece consumes
- **India is beginning to support EVs with the Ministry of Heavy Industries and Public Enterprises providing subsidies to 11 cities with populations >1 million for 40 busses each, with several cities putting out tenders for 100 or more (Source: The Hindu Business Line, March 2018)**
 - India produces ~90k busses and coaches/yr. and over 200k medium and heavy duty trucks (Source: ICRA Research Services)
- **Paris, London, Mexico City and Los Angeles are among 13 municipalities that have committed to only buying zero emissions transport by 2025**
 - London is slowly transforming its fleet with four routes in the city center being shifted to EVs with plans to retrofit 5,000 old diesel buses in a program to ensure all buses are emission-free by 2037
- **China had ~99 percent of the 385,000 electric buses on the roads worldwide in 2017 (~17% of the country's entire fleet)**
 - China has the world's worst pollution problem with growing urban population and energy demand, the nation's smog was responsible for 1.6 million extra deaths in 2015, according to the non-profit Berkeley Earth

Market Strategy

Business Sectors

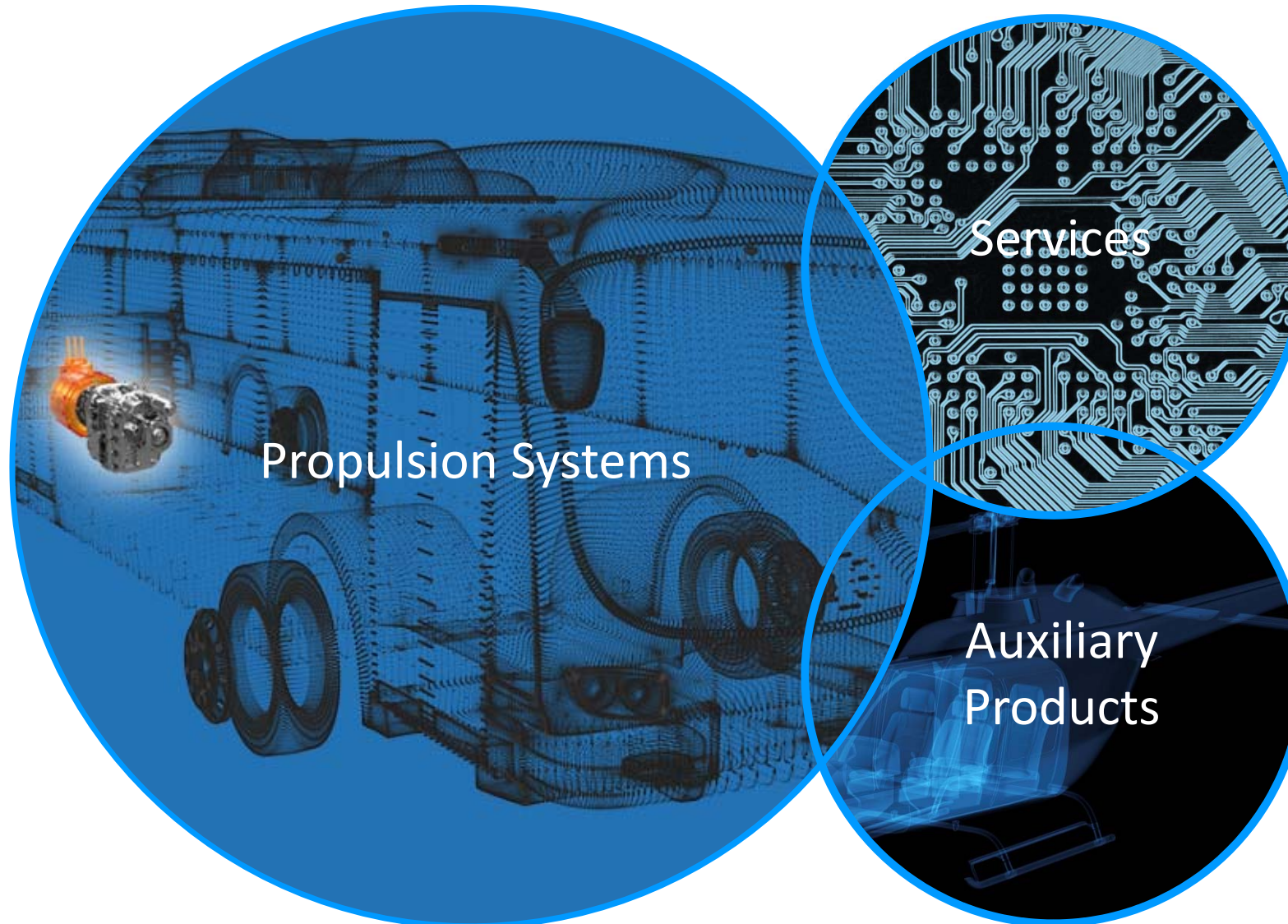
Propulsion System Solutions

Technology-Enabled Cost Advantages

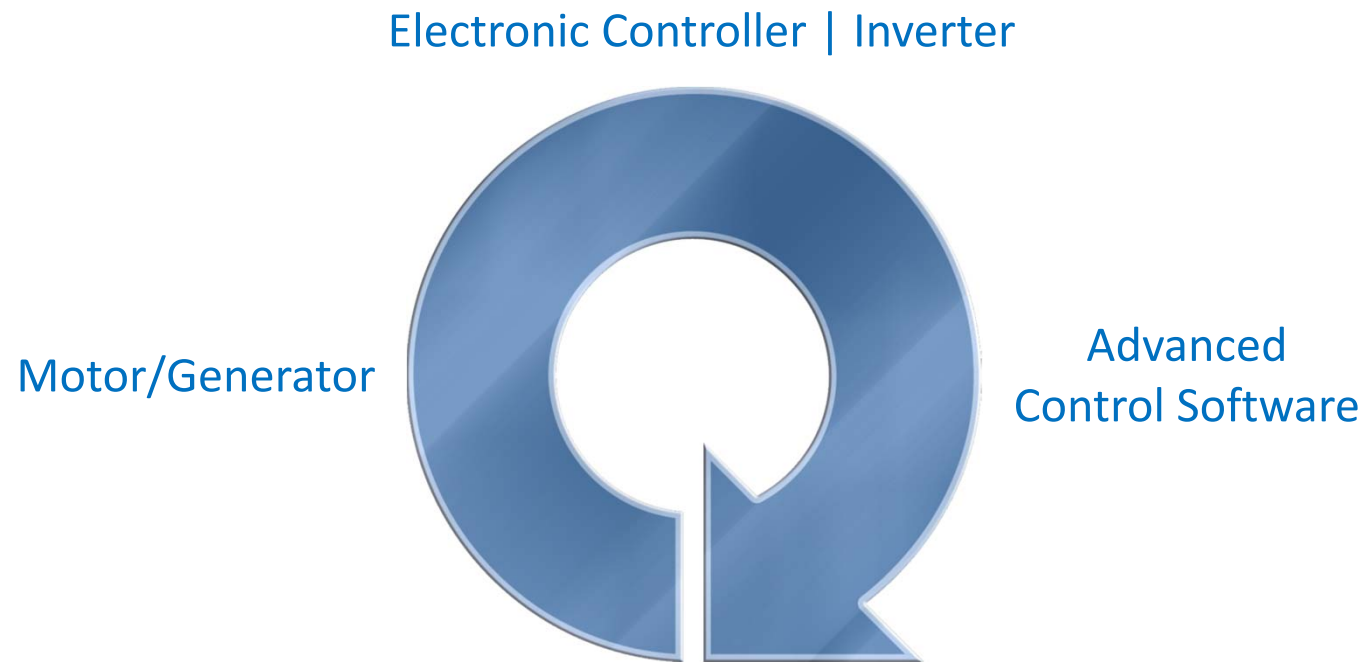
Auxiliary Products

Engineering Services

Strategic Business Sectors



Systems Approach



- System balances the tradeoffs of all three components for optimized performance
- Leads to highest Torque, Power Density and Efficiency in the industry
- Smart switching and adaptive software allow for higher efficiency, smaller and less expensive hardware

Overall system is greater than the sum-of-its-parts

PowerPhase[®] Propulsion Systems



PowerPhase[®] Pro

Automotive
& Light Truck



Passenger Cars
Vans and Light Trucks

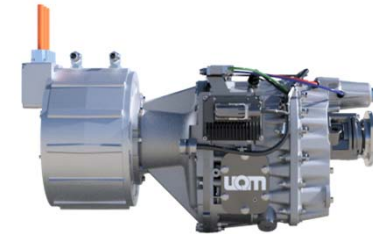


PowerPhase[®] Heavy Duty

Medium-Duty Transit &
Truck



Light- to Medium-duty Bus
and Commercial Trucks



PowerPhase[®] DT

8 -12 Meter Bus &
Heavy-Duty Truck



Large Buses
and Heavy-Duty Work Trucks

UQM propulsion systems covers the complete range of vehicle classes.

PowerPhase[®] Pro Platform

PowerPhase[®] Pro Platform Specification Range

- **300 to 420 Nm** Peak Torque
- **100 to 190 kW** Peak Power
- **60 to 100 kW** Continuous Power
- **270 to 750 VDC**
- **7,700 to 13,000 RPM** Top Speed



Leading edge features and performance. Higher efficiency across broad range of operating conditions.

PowerPhase[®] HD Platform

PowerPhase[®]HD Platform Specification Range

- **700 to 1,150 Nm** Peak Torque
- **145 to 250 kW** Peak Power
- **100 to 180 kW** Continuous
- **250 to 750 VDC**
- **4,500 to 6,000 RPM** Top Speed

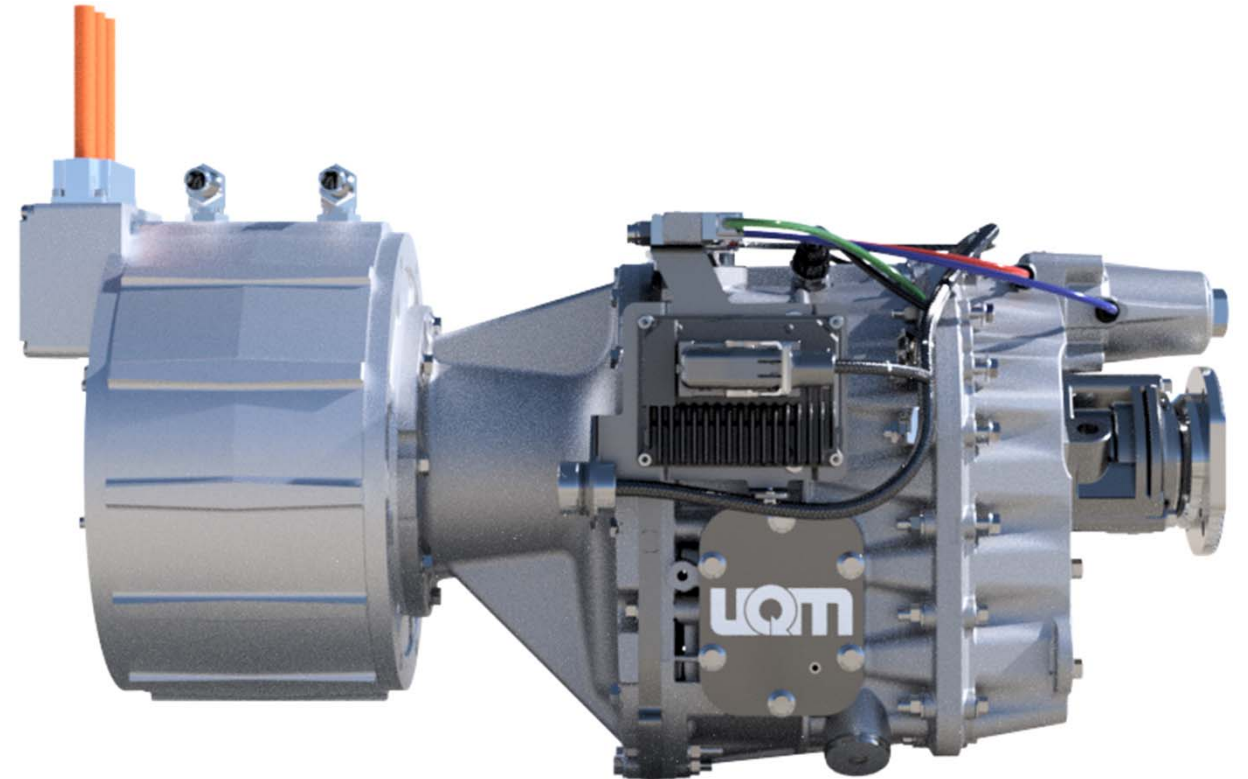


PowerPhase[®] Heavy Duty



PowerPhase[®] eDrivetrain (eDT) Optimal Commercial EV Drivetrain

- Compact Electric Drive
- Up to 15% More Efficient, Less Weight, Less Battery Cost
- Improved Drivability and Smooth Acceleration Curve
- Millions of Miles On the Road
- Lighter Weight
- *3,000+ Nm Torque Output*



Full Electric

9-12 M Transit Bus

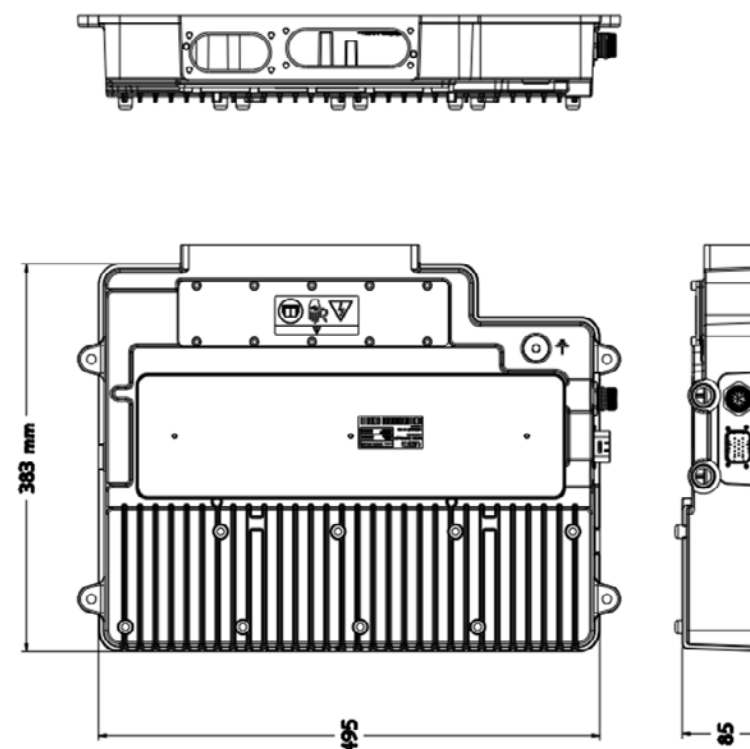
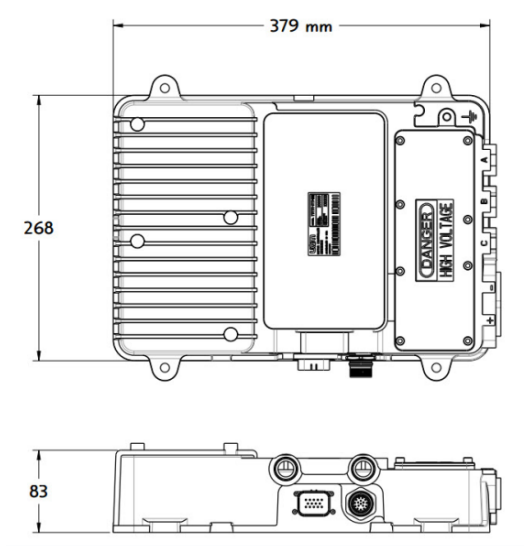
HD Cargo Trucks

Work Trucks

Steep Grades

Extreme Duty Cycles

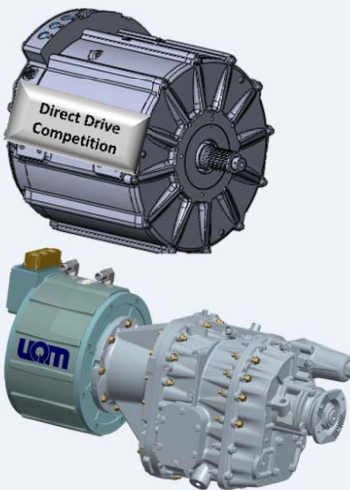
Inverter Roadmap (New Product)

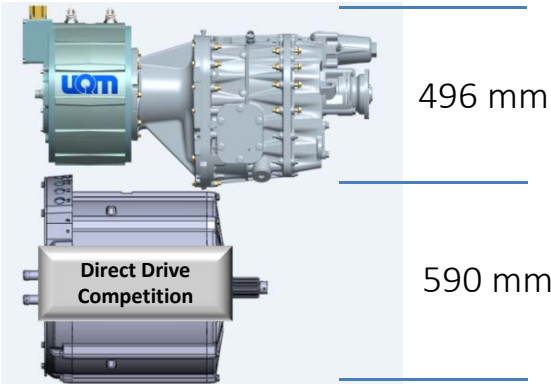
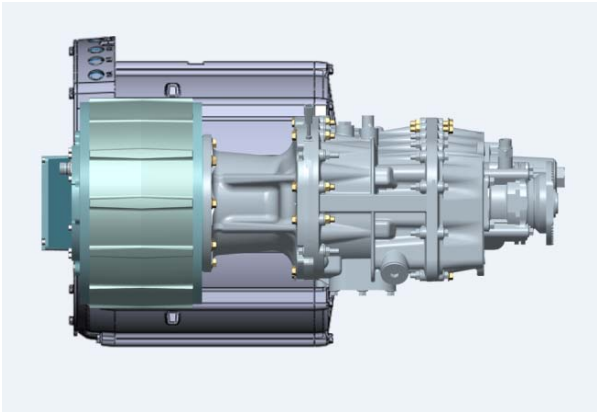
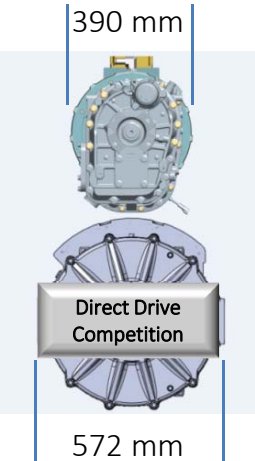


- 2 Frame Size controllers HD2 and Pro2
- High degree of modularity for economies of scale.
- Reduced weight by 60% and 72% respectively.
- Designed to higher standards for Vibration, EMI and Functional Safety.
- Significant cost reduction to meet the global market demands



UQM Solution vs. Direct Drive

	System	Weight	Material Cost	Dimensions	Torque Density	Continuous Torque	Max Rpm	Peak Power	Cont. Power	Speeds
	Direct Drive PM Motor	380 kg	More	572x590x668	9.2 Nm/kg	1,500 Nm	2,500	250kW	150kW	1
	PM Motor with Transmission	177 kg	Less	390x496x968	17.8 Nm/kg	1,550 Nm	4,800	250kW	>150kW	2

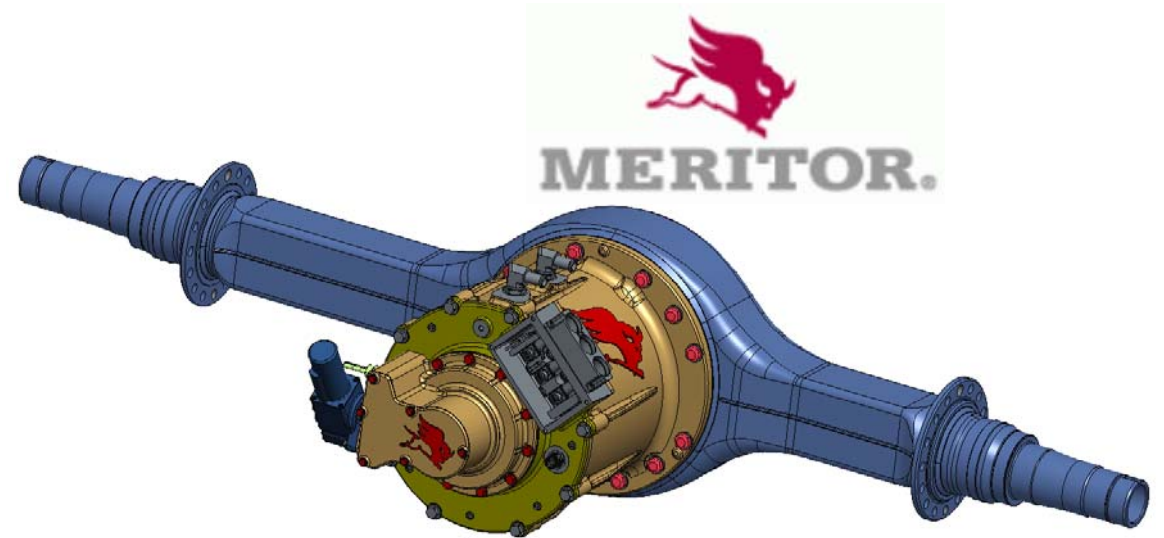


Less Weight. Less Material. Less Cost. 2X Wheel Speed and Torque. Greater Overall Efficiency

PowerPhase[®] eDT Commercial E-Axle Solutions

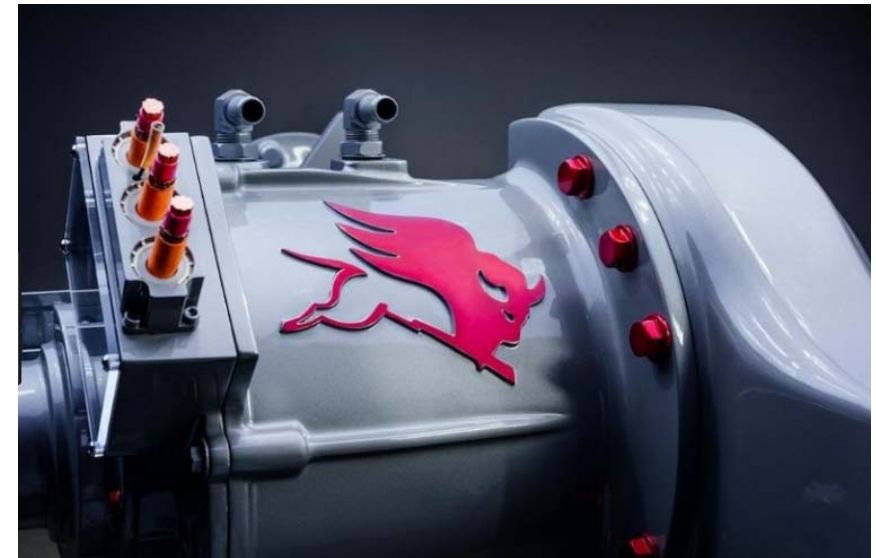
Architecture and Packaging

- Eliminates Driveline and Tunnel
- Opens Vehicle Architecture
- Optimizes Battery Placement location
- 2-Speed or 1-Speed
- Packaging Efficiencies for Motor & Gears



Performance and Cost

- High Power Density for Low Cost
- Reduced Components
- Reduced Cost Shared Housing for Motor & Axle
- Drive Shaft and Transmission Eliminated
- Only 20 kg added to Axle after integrating 250 kW motor



UQM's best-in-class torque and power density and compact packaging is ideal for E-axle packaging.

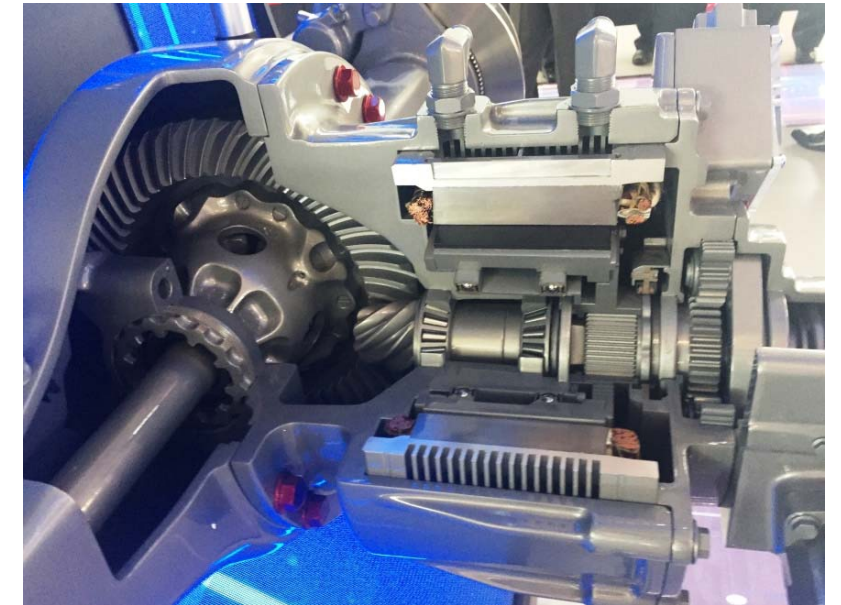
PowerPhase[®] eDT Commercial E-Axle Solutions

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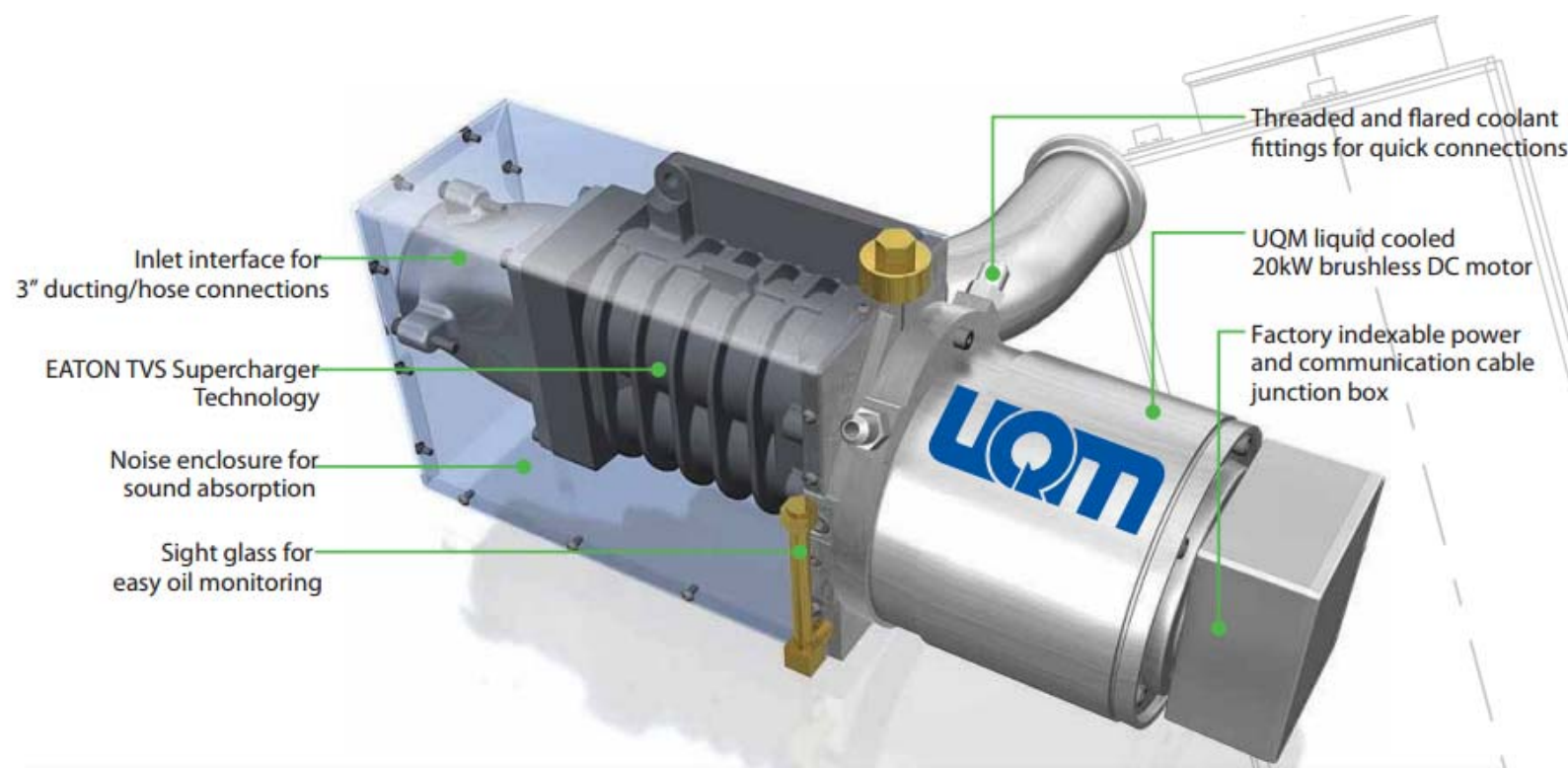


UQM's best-in-class torque and power density and compact packaging is ideal for E-axle packaging.

Auxiliary Products

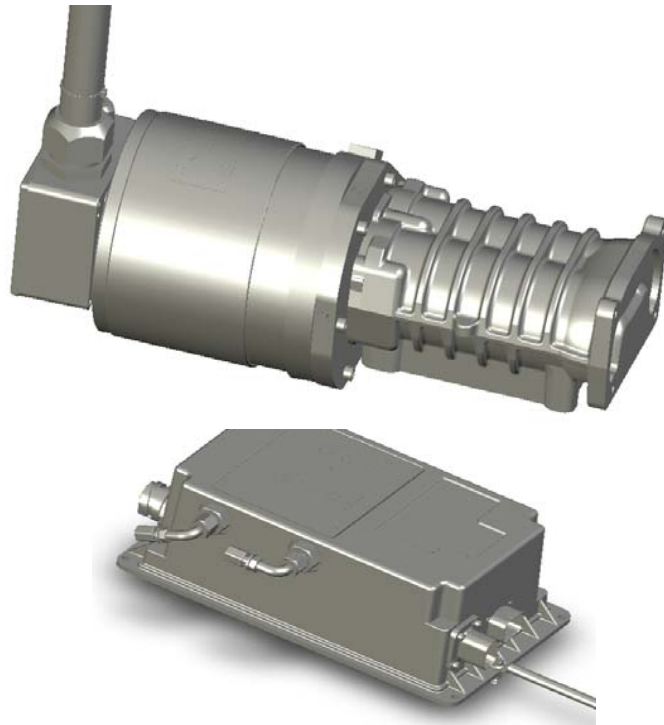
Fuel Cell Compressor Systems

- Leading Global **EATON** Compressor Technology
- UQM Electric Motor and Controller
- 30kW to 150kW Stack Capability
- Efficient System Ideal for Wide Array of Vehicles
- Changes Hydrogen to Electrical Energy with Minimal Losses and High-Pressure Ratios.



Industry leading and efficient. Variable speed fuel cell compressor system supplies air to the fuel cell stack.

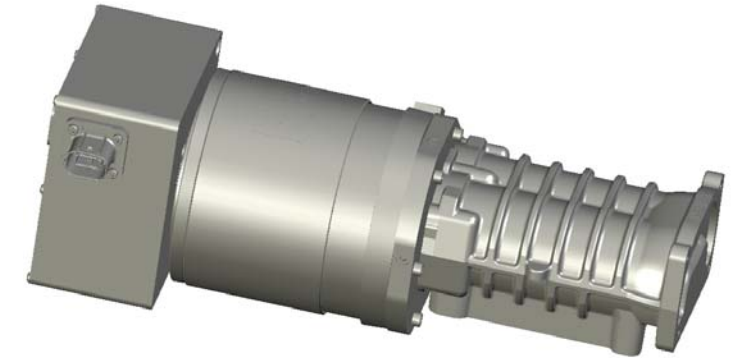
UQM Fuel Cell Compressor System Advantages



Motor/Compressor with Separate Controller

- Versatility
- Application Flexibility

- **Wide Market Coverage** in Product Line
 - Delivery Vans to Full Size Buses
 - 30-150 kW fuel cells (6-20 kW compressor motors)
 - Wide voltage range 250V to 750V
- **Reliability** in simplicity of roots style Compressor (Automotive Superchargers)
- **Most Efficient** motor and compressor combination
- **Market Dominance** Few competitors have roots style compressor + high efficiency motor
- **Low Cost** Leverage production compressor and Integrated Controller



Motor/Compressor with Integrated Controller (*Not Released)

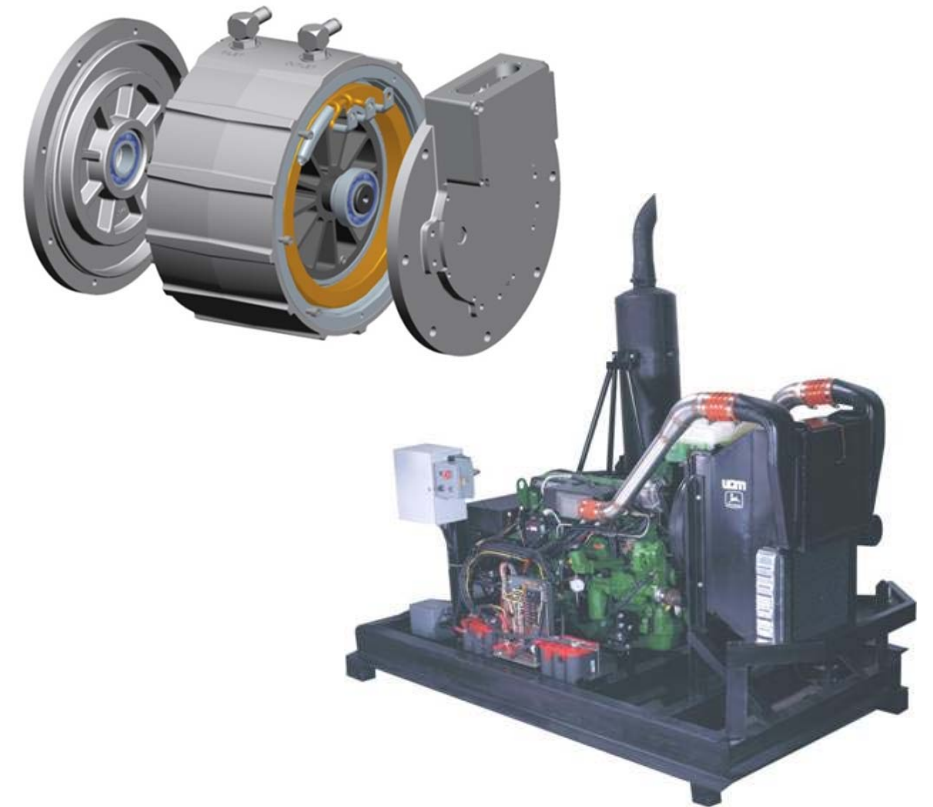
- Lowest cost
- Space Saving Design
- Integrated design near same size as Motor/Compressor
- Adaptable to multiple compressor options

Auxiliary Products

Permanent Magnet Generator

UQM Advantages for generator applications

- Higher efficiency (more efficient than industrial generators)
- Variable voltage, speed, and torque, control
- UQM achieves high torque and high power with proprietary technology



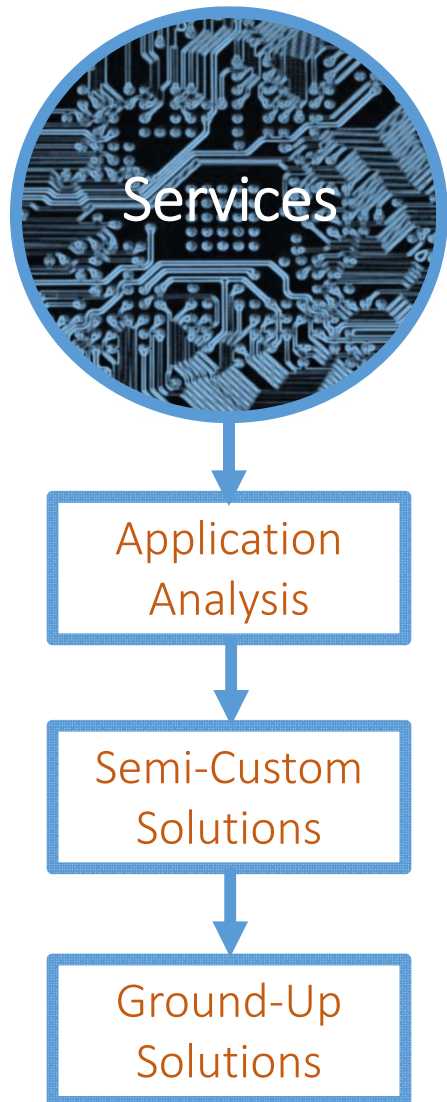
UQM variable speed and voltage generators are less than half the size and weight when compared with traditional industrial generators.

Technology Advantages

- Full system provider and high power and torque density leads to lower cost basis due to reduced material usage.
- Highest system efficiency – Typical system efficiency (motor and inverter) exceeds 95% peak efficiency and produces over 90% for a greater portion of the efficiency map.
- Enhanced thermal performance for water-glycol cooling for better continuous power and duration at peak power.
- Proprietary motor control software that increases the power and efficiency above industry standard motor control techniques. Four quadrant motor control and choice of three different control methods: torque, speed and voltage control. Can switch control method on-the-fly to enable synchronized shifting and other advanced system functionality.
- User-friendly diagnostics software reduces implementation time for our customers, and custom software tuning allows customers to fine tune the vehicle.
- UQM engineering support to assist with vehicle tuning or enhanced functions or vehicle performance simulation.

Total Drivetrain Efficiency is the key to market and customer success.

Engineering Services



VEHICLE DEVELOPMENT SUPPORT

- Vehicle simulations to optimize drive system selection
- Referrals to highly qualified integration partners
- Vehicle Commissioning, certification or performance optimization support

ADVANCED ENGINEERING SERVICES

- Custom Prototype Design Services
- Research and Development
- Vehicle Development Support
- Motor Characterization and Dynamometer Testing

Global Expansion



Customer Expansion



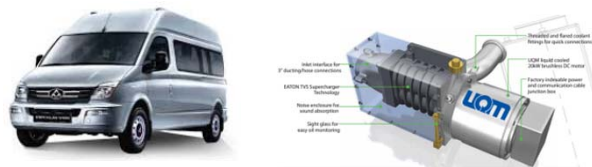
- Lightning Systems announces eQVM with Ford Motor Co. Multiple E drive platforms with UQM in customer trials.



- Sinotruk has 3 UQM powered vehicles on the road: 4.5Ton Truck, 8m Bus, 12m Fuel Cell Bus.



- Ashok Leyland selects UQM PowerPhase® DT system for India market.



- Numerous new fuel cell compressor system customers announced.



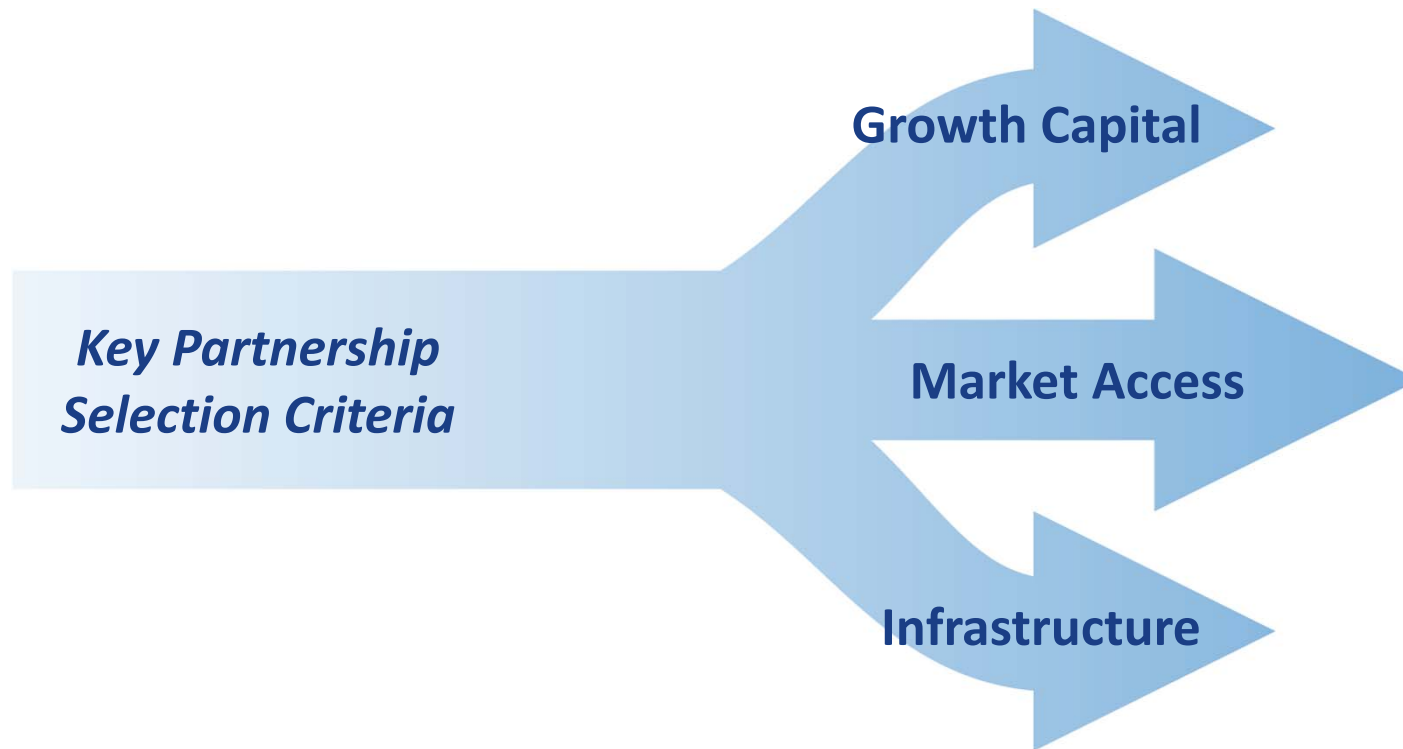
- Strategic alliance with Meritor to develop electric e-axle systems.



- Continued success with Proterra as the market-leading electric bus.

Customer and market expansion clearly shows UQM trajectory and success

Key Customer – China | Sinotruk



...Sinotruk has completed installation of UQM e-drive systems in three vehicles...



**China National Heavy Duty
Truck Group**



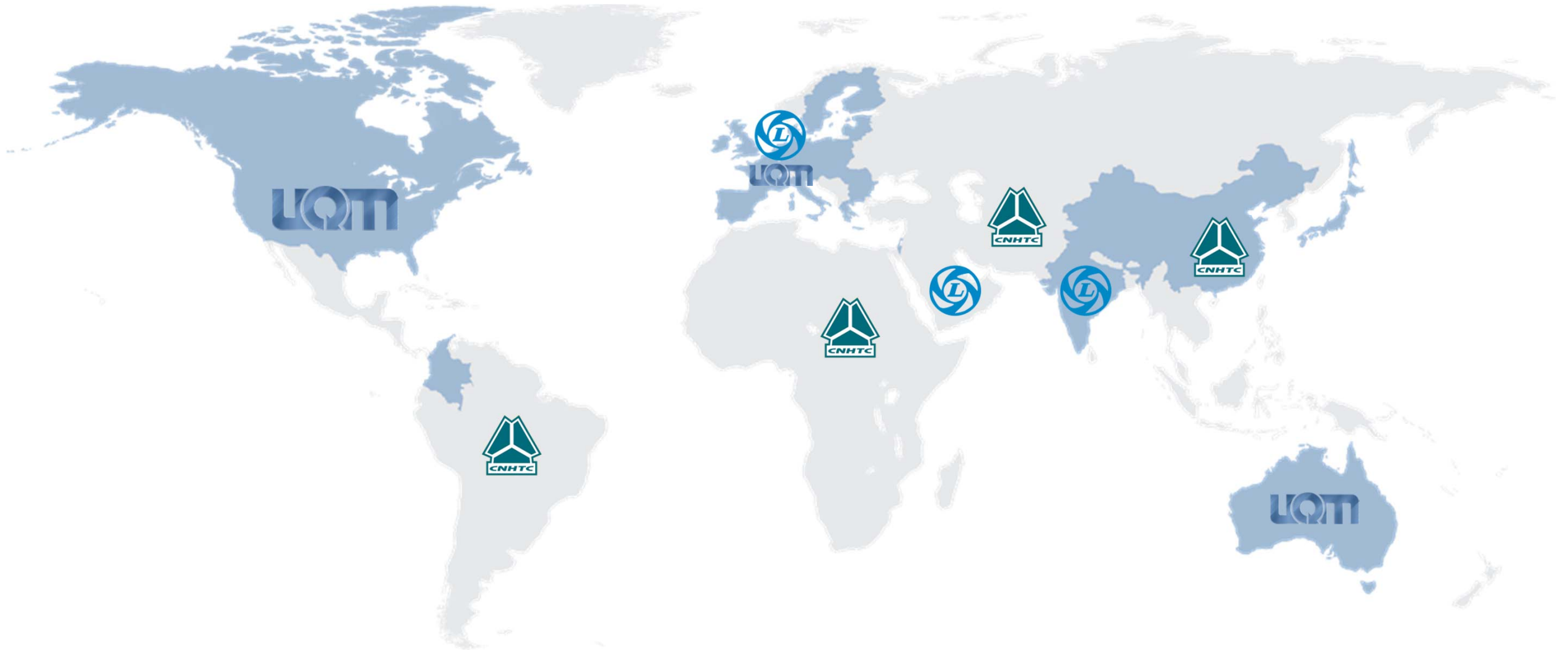
SINOTRUK

Key Customer – India | Ashok Leyland

- **Ashok Leyland Project Award (2017)**
 - **The optimal strategic partner for India**
 - 2 Time Deming Award winner
 - 4th largest bus manufacturer in the world
 - 14th largest truck manufacturer in the world
- **Major Market Growth with Modi Administration's Announcement of the 2030 Electrification Plan**
 - FAME (Faster Adoption and Manufacturing of Electric Vehicles) and NEMMP (National Electric Mobility Mission Plan).
- **Energy Security as Prime Market Driver**
- **VOLUMES (Estimate) 3-5K in 2020**



UQM | Expanded Global Footprint



Strategic Partnership Overview

Strategic Partnership

- CNHTC is the parent company of Sinotruk (Hong Kong) Limited
- Sinotruk
 - Leading manufacturer of commercial vehicles in China
 - Global presence in 90 countries
 - Minority ownership by MAN Truck and Bus
 - 2017 revenues of \$8.9 billion
 - Shipped 264,000 commercial vehicles in 2017
 - Over 25,000 employees
- JV will be established to manufacture and sell E-drives in China
- UQM product offerings meet the full array of Sinotruk product portfolio needs

Key Investment Points

- Stock Purchase Agreement signed August 25, 2017
- Investment of \$5.3 million
- 9.9% ownership
- CNHTC Chairman is an observer to the UQM Board



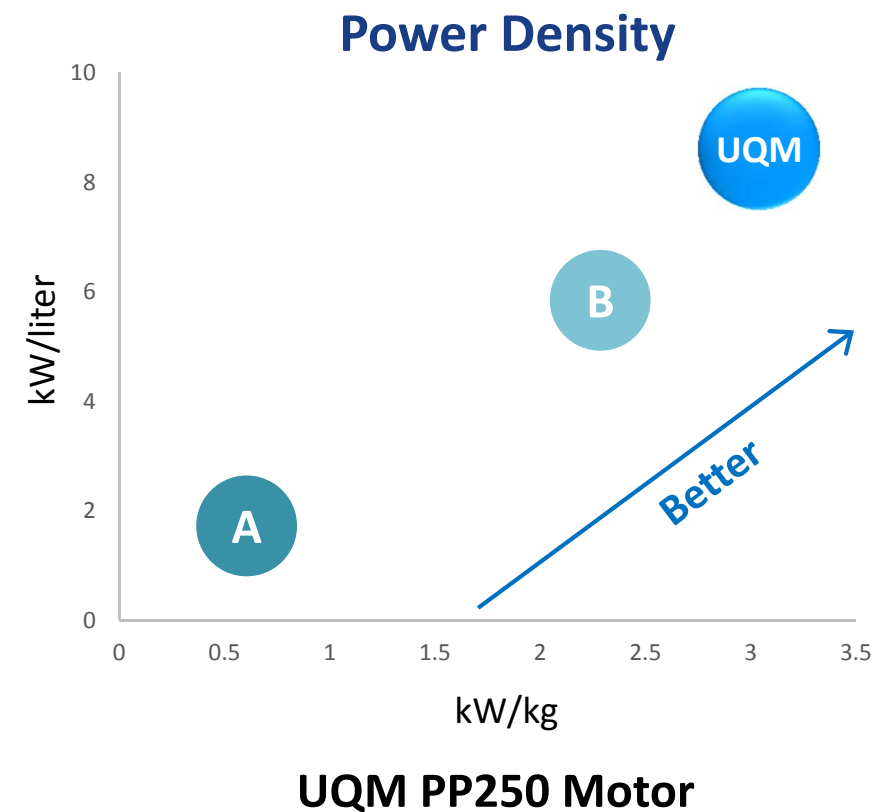
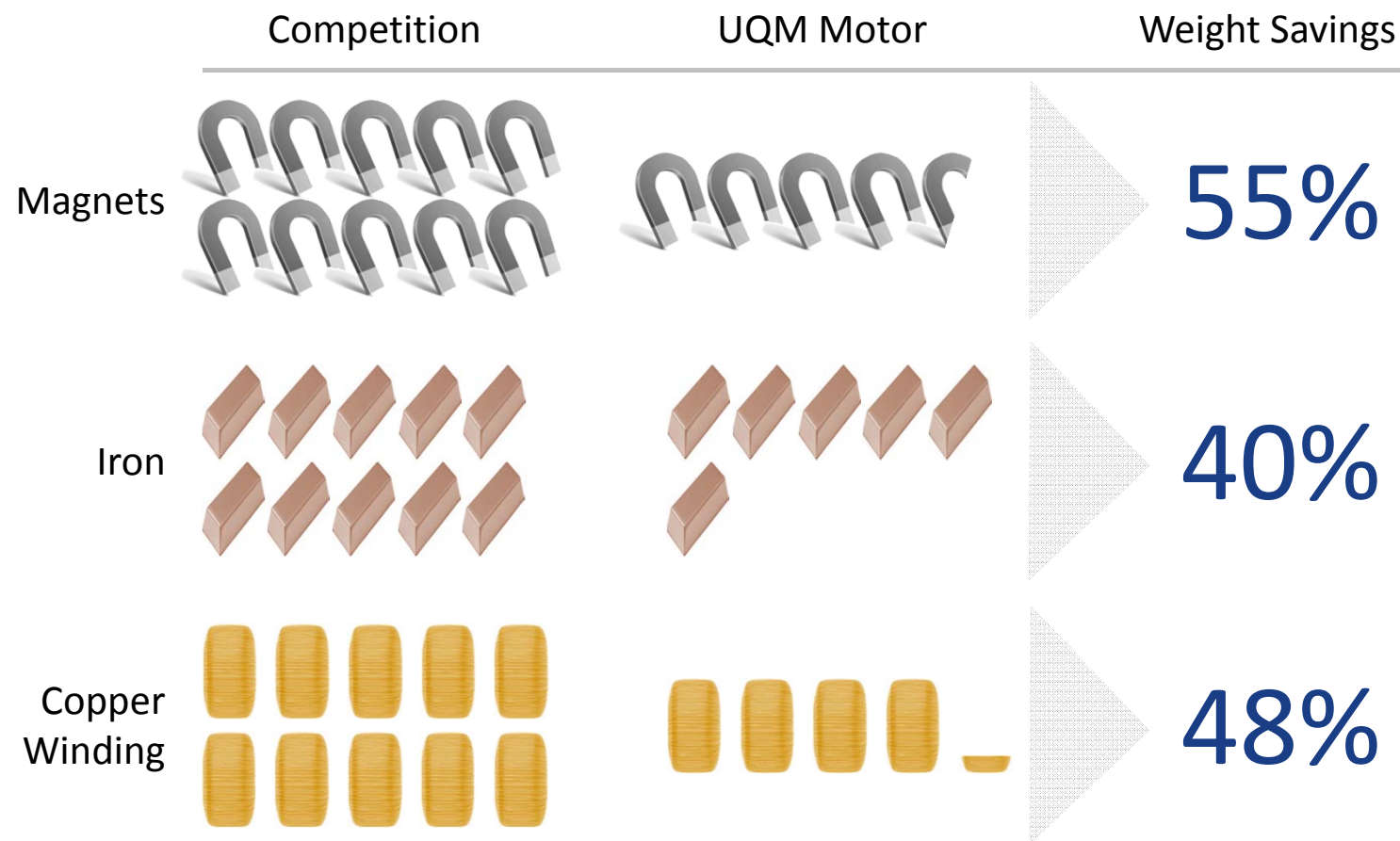
What This Means for UQM

- JV to address China commercial vehicle market
 - UQM revenues will be derived from JV E-drive sales, component sales to JV and engineering services to the JV
 - IP protection achieved through supply of control board with software load direct from UQM.
- Infrastructure and large captive market with Sinotruk alone (264,000 commercial vehicles in 2017)
- Product cost reduction opportunities due to economies of scale and Sinotruk purchasing power
- Access to Sinotruk transmission and axle capabilities to supply more value added content
- Additional growth opportunities with Sinotruk global reach.

Financials



UQM Technology-Enabled Cost Advantages



Best-in-class power density. Less material. Less cost.

Financials

- Revenue is growing globally
- Strong contribution margins
- Significant operating leverage
 - Low fixed cost basis
- Clear path to profitability
- Technical product cost advantages
- Multiple funding options available for growth capital
 - Strategic partner investment
 - Growth capital investors
 - Sale & Lease Back of facility
 - Debt

> \$100M
E-drive Tech Investment

\$40M
U.S. DOE
Contribution

15
Worldwide
Patents

Go Forward Plan

Operational improvements to support growth

- Lean manufacturing and capacity improvements to support growth
- Key new personnel joining team in both Engineering and Operations
- China Service Center and WOFE Launch

China Market Commercial Propulsion Systems Manufacturing and Launch

- Finalize China E-drive business plan and anticipated manufacturing launch in 2019
- Create a China plan that works in the current global trade market

New Products, Markets and Applications

- Revenue growth through support of existing customers and continuing to find new customers
- Continue with Global expansion, Key Partnerships & Develop Technologically superior systems

Advanced Technology

- Continue with our product roadmap with strategic investment in key technologies to support our growth technical advantages

Summary

The Market

- \$65 billion. Infrastructure-ready. Environmental, cost and technical drivers
- Macro factors driving our market have never been better

Strategy Execution

- Continue to stay focused on growth and positioning in the market
- Developing new technologies and cost reduced applications
- Working through geo-political obstacles
- Operational Excellence, Turnkey solutions, Global expansion, Technologically superior systems

Financials

- Much stronger company today with premium partners and customers
- Positioned for revenue growth with strong margins and technical cost advantages

Through Decades of EV Leadership, UQM has developed the world's best e-drive technology, and now we are aligned with world leaders in commercial vehicles and expanding into the largest EV markets in the world.



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