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DuPont Global Centers of Excellence for Automotive Electrification

Accelerating solutions to market

DuPont has formed three global Centers of Excellence (COE) where our experts can concentrate on specific vehicle areas and technical disciplines to allow for:

- Accelerated assessment of important factors like reliability, performance, cost, time-to-market, and consumer appeal (fast charging, range, connectivity, safety)
- Fast application development to help validate individual new concepts in shorter timeframes versus complete programs

To meet growing demand in all regions, including the USA, there is global interaction between the COEs and other DuPont technical and R&D centers worldwide.

The COEs have pilot-scale capabilities and use the same methodologies as OEMs and Tiers including:

- Processing equipment to make parts and prototypes (molding, extrusion, assembly)
- Ideation enhanced by VR, 3D printing, and machining capabilities
- Application testing (electrical, safety, thermal, mechanical)
- Module-scale performance testing
- Analytical lab (tomography, thermal conductivity, electrical properties)
- Advanced simulation tools for design and correlation analysis (CAE/CAD)
- Scale-up pilot plant capability



The automotive industry is changing at an unprecedented rate. By 2030, more than two thirds of vehicles globally will be electrified to some degree. This changing landscape is being driven by legislation for reduced emissions, increasing urbanization, and customer demand. Consumers and policy makers alike are calling for more sustainable and more advanced vehicles without compromising on performance or safety. OEMs need solutions to address these challenges and DuPont has the expertise and broad portfolio to help make sustainable advanced mobility a reality.

Three dedicated facilities

DuPont COEs will focus on three key areas crucial to driving EV technology forward - battery safety, thermal management, and e-powertrain efficiency. Each COE will have dedicated personnel and equipment to accelerate the development and adoption of new technologies.

Battery Safety

Shanghai, China & Geneva, Switzerland

Objectives: Helping meet safety requirements while increasing energy density, fast-charging endurance, and cost optimization

Key applications:

Thermal Management

Geneva and Freienbach, Switzerland

Objectives: Improving fast charging speed, cold weather performance, and battery reliability - all at a controlled cost

Key applications:

- Cooling lines / connectors
- Cooling plates
- Pumps / valves
- Thermal interface materials
- Thermal conductive adhesives

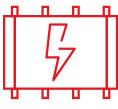
E-Powertrain Efficiency

Geneva, Switzerland

Objectives: Optimizing power electronics, e-motor efficiency, and energy/ packing density while maintaining reliability at the highest levels

Key applications:

- Overmolded busbars
- HV connectors and seals
- Power electronic housings
- E-motor insulation







Global interaction between Centers of Excellence and other technical centers worldwide.

Our Centers of Excellence represent one more way in which we are actively supporting the growing vehicle electrification market. Contact one of our representatives to accelerate the conversation.

dupont.com/mobility

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