

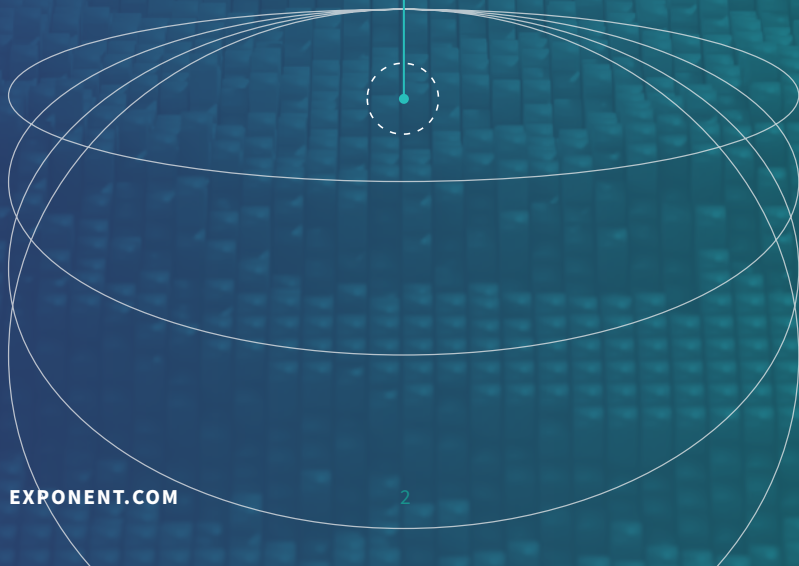
Exponent®



Battery Storage & Transportation

SUPERCHARGE YOUR ENERGY STORAGE SYSTEM

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Hard Questions. Tough Challenges. Bring It.

In an era of accelerating change, Exponent is the only premium engineering and scientific consulting firm with the depth and breadth of expertise to solve our clients' most profoundly unique, unprecedented, and urgent challenges.

Exponent's 950+ consultants help our clients navigate the increasing complexity of more than a dozen industries, connecting decades of pioneering work in failure analysis to develop solutions for a safer, healthier, more sustainable world.

Exponent by The Numbers

90+

Technical
Disciplines

30+

Offices Across North
America, Europe & Asia

1967

50+ Years of
Scientific Excellence

HOW WE HELP CLIENTS

Nex-Generation Battery Evaluations

Passing a standard battery test doesn't tell you what could go wrong or even how your product will perform in the field. Our science and engineering teams design custom tests to help protect your business and customers in all areas of the transportation industry, including:

Electric Vehicles

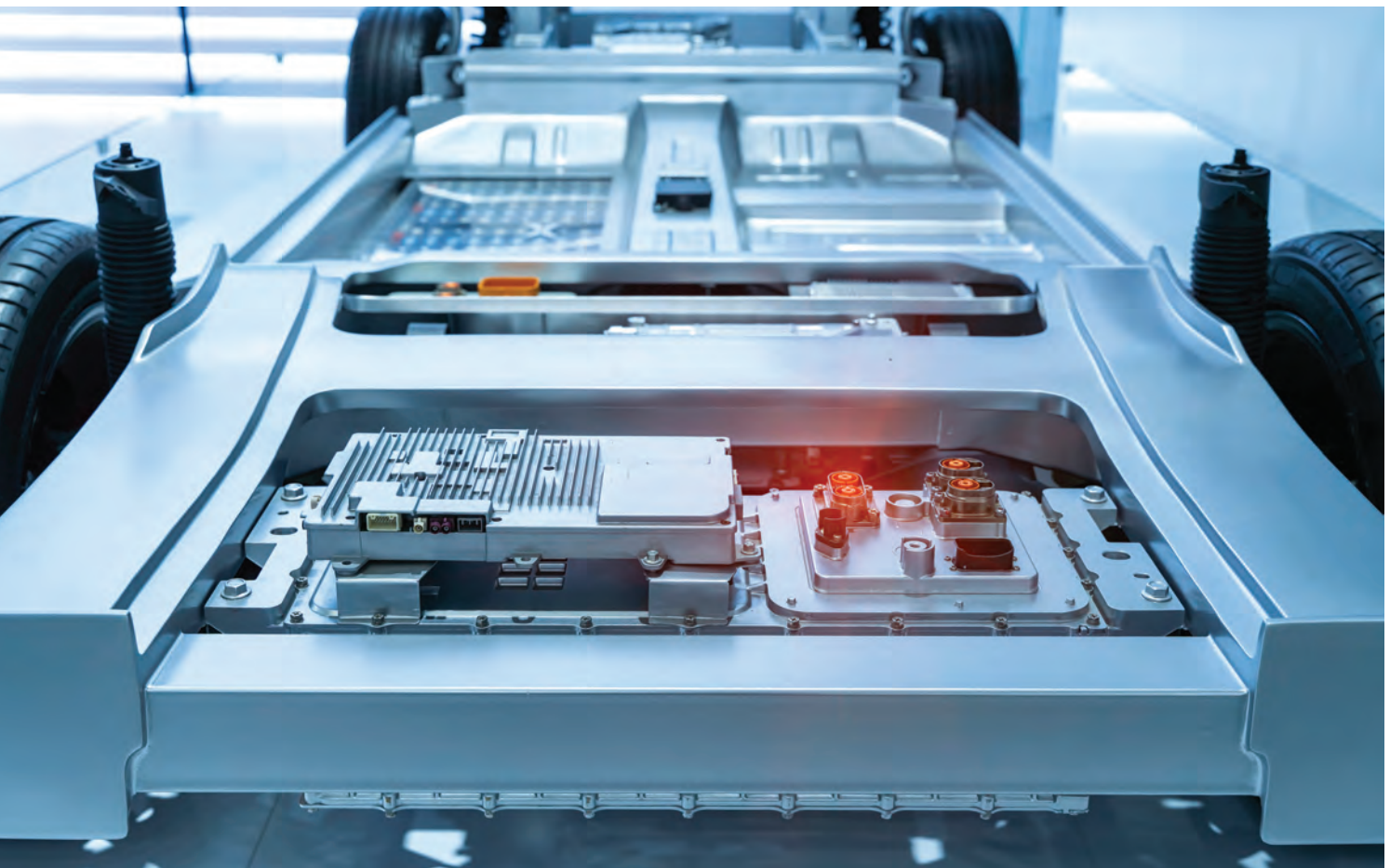
Ensuring high-performance electric vehicles that go further.

Commercial Fleets

Analyzing performance to product breakthrough insights and optimize performance.

Emerging Transportation

Enhancing the reliability and safety of electric cars and devices with complex control systems and high voltages.

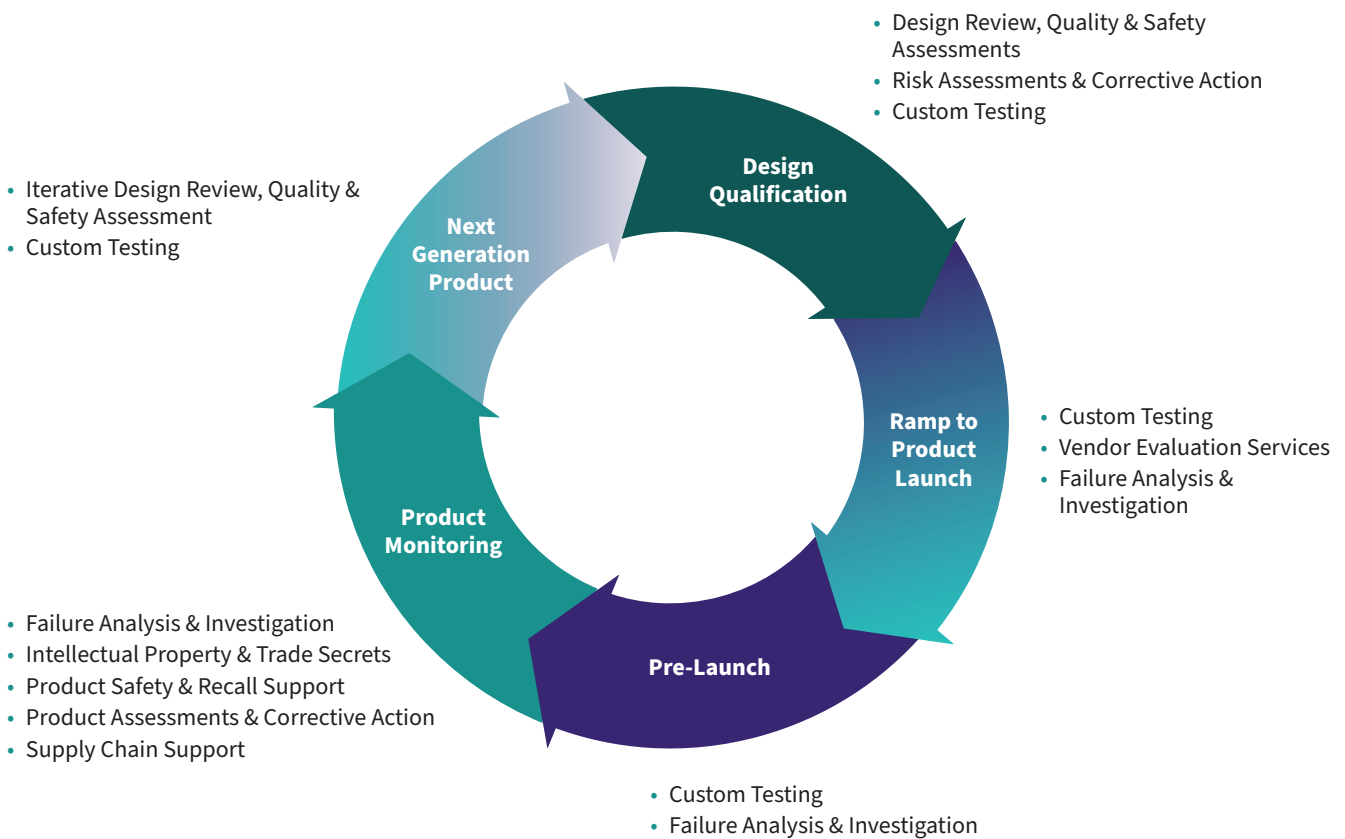


UNPARALLELED CAPABILITIES

Supercharge Your Battery Performance, Reliability & Safety

Leveraging our deep history in failure analysis and unparalleled multidisciplinary expertise, Exponent’s energy storage and battery technology consultants bring a unique focus to helping ensure the performance, reliability, and safety of your energy storage technology at every stage of the product lifecycle.

Whether addressing a design component issue, conducting a failure analysis investigation, sourcing global manufacturing, tracing quality concerns across complex supply chains, or prioritizing corrective actions, Exponent works with batteries of every size and scale in the transportation industry.



Cutting-edge Insights for Battery Technologies

At Exponent, we believe developing the battery-powered technologies of the future requires understanding how batteries have evolved, as well as the many ways they may fail. The battery technology space is increasingly competitive, and our clients require trusted, objective guidance as well as innovative performance evaluation and testing capabilities that enable them to bring products to market with confidence.

Battery Failure Analysis & Investigation

Exponent offers comprehensive battery failure analysis to determine the root causes of failures and identify opportunities for mitigation. We bring together unparalleled perspectives in battery science and engineering to clearly diagnose the cause of an incident.

Leveraging Exponent's sophisticated testing capabilities and decades of experience-backed insights, our services combine global reach and speed with extensive knowledge of battery technologies. We determine the root causes of failures and identify opportunities for mitigation against possible future failures.

Battery Design Review, Quality & Safety Assessments

Exponent offers state-of-the-art battery design, performance, quality, and safety assessments, effectively supporting manufacturers' requirements and industry standards.

Our battery assessments include:

- Design Review Assessment: Independent review of whether elements of a battery's design or any surrounding elements are likely to impact its safety or function, supported by choices in corrective action/risk mitigation.
- Quality Assessment: Analysis of the quality and reliability of the battery given specific conditions and design factors.

- Safety Assessment: Investigation into battery failure modes and identification of engineering solutions directed at bespoke performance targets.

Battery Safety & Recall Support

Through our multidisciplinary engineering expertise, knowledge of industry and product requirements, and deep understanding of foreseeable use/misuse scenarios, we offer clients the independent, objective scientific perspective needed to support legal and regulatory decision-making — both in designing programs that enable continuous safety and quality monitoring and in assessing potential product recalls.

Exponent helps reduce the overall risk profile of our clients through customized battery safety and compliance programs. We build protocols that are precisely matched to the scope, volume, and complexity of each company's battery production or products, considering many factors, for example:

- Enterprise quality and safety/compliance standards
- Supplier selection and management
- Product qualification and certification test management
- Safety and quality exceptions handling
- Product tracing strategies and recall scope determination
- Communication/database management

SERVICES

Battery Risk Assessments & Corrective Action

Exponent offers expert battery risk assessment and corrective action services, including cost-effective tools for long-term monitoring and tracking of product performance and safety. We leverage experienced, cross-industry engineering and scientific expertise for pre- and post-market battery risk assessments, providing solutions for every step of design and development.

Battery Vendor Evaluation Services

We provide comprehensive battery vendor evaluation services, including cell testing, design and construction evaluation, and battery manufacturing line quality assessments. Exponent offers comprehensive battery vendor evaluation services, including cell testing, design and construction evaluation, and battery manufacturing line quality assessments. We deliver independent, objective analyses that empower innovative, reliable battery product journeys

Custom Battery Testing

Exponent provides custom product safety, performance, and industry certification battery testing services. We prioritize broad quality metrics in parallel with industry certification standards to help our clients create safe, high-performing products. Exponent's experience in failure analysis and design evaluation allows us to identify potential weaknesses and design custom battery testing to better understand how a product could fail during use or expected misuse.

Battery Intellectual Property & Trade Secrets

Exponent's deep expertise in battery technologies enables us to provide expert opinions and advisory services on diverse legal matters. We offer capabilities in intellectual property and trade secrets related to all aspects of the battery supply chain, with a proven track record of protecting the privacy and security of our clients.

Battery Supply Chain Services

Exponent offers end-to-end battery supply chain support, including helping clients evaluate potential manufacturer partners and suppliers in key global markets. We have extensive on-site experience evaluating manufacturers and suppliers in key global markets and support clients with insights that help them choose the right partners. We have the resources and capabilities to work on-site or remotely with suppliers and manufacturers to assess all aspects of battery sourcing and performance.



What can we help you solve?

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Exponent[®]

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