

SUSTAINABILITY UPDATE

OCTOBER 2025



Dear Stakeholders,

At QuantumScape (QS), our founding mission remains unchanged: to transform energy storage and accelerate the global shift to a sustainable future. Our focus has always been on developing the world's most advanced batteries—measured by energy density, power density, charge time, cycle life, and safety.

This year marks a significant milestone in our evolution. As we move beyond the prototype phase and closer to commercializing our solid-state lithium-metal battery technology for electric vehicles, we are entering a new chapter—one defined by strategic partnerships, refined processes, and a sharpened focus on sustainability.

A key development in this transition is our expanded [agreement with PowerCo](#), which has bolstered our business model shift from manufacturing to licensing our breakthrough battery technology. This change allows us to scale more efficiently and focus on innovation. Additionally, [the integration of our Cobra Separator Process into baseline production](#) represents a major step forward in our technical capabilities and operational sustainability.

Considering these changes, we are updating our annual sustainability newsletter to keep our investors and stakeholders informed. This format reflects the dynamic nature of our business and our commitment to transparency as we adapt to new opportunities and challenges.

While our methods may evolve, our mission remains constant: to deliver disruptive battery technology that supports a cleaner, more sustainable world. We're excited to share our progress and the steps we're taking to align our operations with this vision.

Sustainability Update

The global transportation sector remains one of the largest contributors to greenhouse gas emissions. At QS, we recognize the urgent need to transition away from gasoline-powered vehicles—and we believe that the key to unlocking widespread electric vehicle (EV) adoption lies in advancing battery technology.

Our core mission continues to center on electrifying the automotive powertrain. We see this as both a critical solution to the climate crisis and a long-term opportunity to create meaningful value. While our primary focus remains on EV applications, we also see potential for our solid-state lithium-metal battery technology in other sectors. As these opportunities emerge, we will explore them strategically.

Sustainability is embedded in everything we do—from our boardroom to our operations areas. We believe that operational excellence and responsible business practices go hand in hand. Our leadership team and employees are united in their commitment to minimizing environmental impact, ensuring workplace safety, and fostering employee growth and development.

Oversight of our sustainability efforts is integrated into our corporate governance. Our board of directors regularly monitors environmental and social factors that may influence long-term stakeholder value. Additionally, our nominating and corporate governance committee provides direct oversight of sustainability-related initiatives that align with our strategic goals. To support this work, we've established a dedicated sustainability working group tasked with evaluating our practices and shaping our long-term ESG strategy.

As we move closer to commercializing our technology and gather more robust data, we intend to release our next comprehensive sustainability report—continuing our commitment to transparency and accountability.

Environmental Product Impact

QS's battery technology is designed to deliver transformative benefits over conventional lithium-ion solutions—enhancing energy density, extending cycle life, enabling fast charging, and improving safety. These advancements also pave the way for lower overall costs which would make EVs more accessible and practical for both automakers and customers.

By addressing key limitations of current EV batteries—such as limited range and long charging times—our technology offers an attractive alternative. With the potential to enable less than 15-minute fast charging from 10% to 80% state-of-charge without compromising power, energy density, or reliability, our solid-state lithium-metal batteries bring the EV experience closer to parity with internal combustion engine vehicles, helping eliminate the compromises that have slowed adoption.

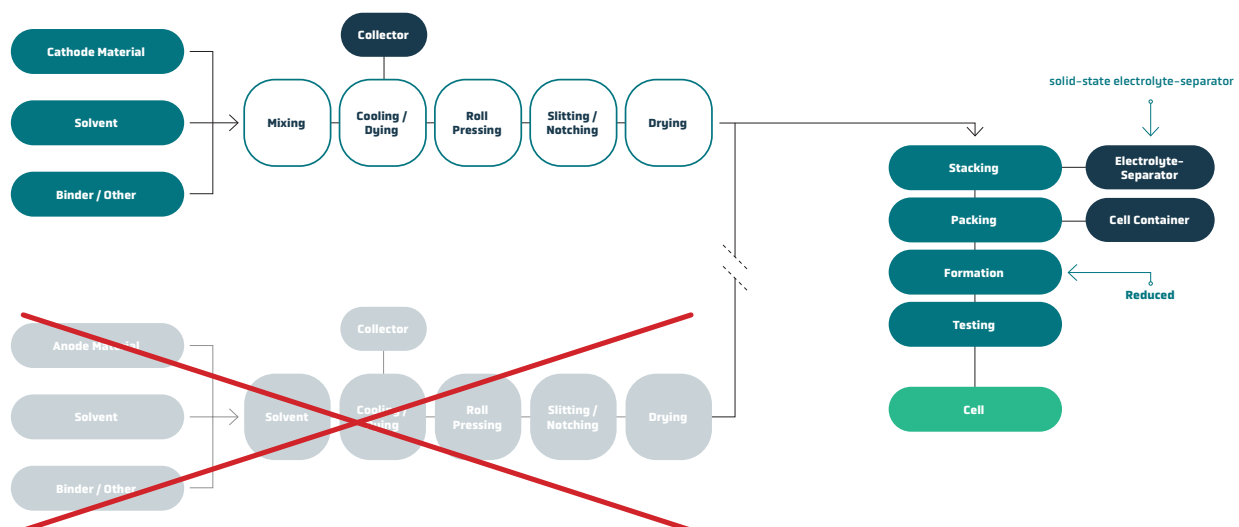
Accelerating the transition to EVs is critical to meeting global climate goals, including those outlined in the Paris Climate Accords. However, the environmental benefits of electrification go beyond carbon dioxide reduction. Gasoline-powered vehicles emit harmful pollutants like nitrogen oxides and particulate matter, which degrade urban air quality and contribute to respiratory illnesses such as asthma. These health impacts are especially pronounced in low-income and marginalized communities.

We believe our technology can play a meaningful role in reducing these environmental and public health burdens. By enabling cleaner transportation, we're not only supporting climate action but also contributing to healthier communities and a more resilient global ecosystem.

Responsible Product Design and Circular Economy

We believe that the environmental value of our technology extends beyond performance—it's also about doing more with less. By engineering our batteries to use fewer materials, last longer, and retain value in second-life applications, we're helping to reduce the overall environmental footprint of energy storage devices.

One of the most impactful design choices we've made is eliminating the anode host material. This innovation reduces the need for resource-intensive materials like graphite, which carries significant carbon footprints and complex supply chain challenges. Our approach not only conserves resources but also simplifies the path to a more sustainable battery.



Our technology also offers advantages in recyclability. Traditional lithium-ion batteries contain components—such as polymer separators—that are difficult to recycle. In contrast, the materials in our solid-state cells are more amenable to recovery and reuse. We are actively investing in the development of recycling processes that will allow us to return these materials to the supply chain, supporting the growth of a circular battery economy.

In 2022, we took a major step forward by partnering with a commercial battery recycler. This collaboration has enabled us to divert significant volumes of scrap materials from waste streams. To date, we've recycled over 66,000 pounds of battery-related materials, including more than 29,000 pounds in 2024 alone. The reclaimed materials, including nickel, cobalt, copper, and lithium, are reprocessed and reintroduced into the battery manufacturing ecosystem, reducing the need for virgin resource extraction and lowering the overall environmental impact of battery production.

We're also tracking our environmental impact through greenhouse gas (GHG) emissions monitoring. Since 2023, we've measured our Scope 1 and Scope 2 emissions—primarily from utilities and process development activities. Our emissions continue remain well below regulatory thresholds set by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB). As our operations mature and we take the next steps in our licensing model, we plan to publish this data to provide a representative picture of our environmental performance.

Product Safety

Our mission to transition society away from fossil fuels is driven by the promise of a cleaner future, and at the core of that promise is the necessity of safer energy storage. Conventional lithium-ion battery fires can be difficult to extinguish and prone to spreading, which underscores the need for significant safety improvements. Conventional lithium-ion batteries carry inherent risks due to flammable liquid electrolyte and polymer separators. Our approach is to engineer safety at the material level. By replacing these combustible components with a nonflammable, solid-state ceramic separator, we aim to fundamentally improve battery stability under abusive conditions like physical damage or overcharging.

In 2023 and 2024, we conducted product safety tests on some of our A0 and Alpha-2 prototype cells including nail penetration, external short circuit, and thermal stability testing at 300 °C (above the 180 °C melting point of lithium), and these cells successfully passed the safety tests of leading international automotive standards.

QSE-5 Prototypes Safety Test Results Summary

Safety Test Description	Safety Test Results	Hazard Levels (HL) Rankings <small>Per Sandia Report SAND2017-6925</small>	
Internal Short Circuit [Nail Penetration] 60 °C	Hazard Level 2	1	No effect
		2	Passive protection activated
Overcharging 60 °C	Hazard Level 2	3	Defect/damage
		4	Minor leakage or vent
External Short Circuit 25 °C	Hazard Level 3	5	Minor leakage or vent
		6	Rupture
Thermal Stability 300 °C	Hazard Level 3	7	Fire or flame
		8	Energetic failure

Test protocol based on SAND2017-6925 and IEC/TR 62660-3 & -4

The tests and measurements described above were conducted on a limited number of QSE-5 B samples and commercial Li-ion energy cells in our labs. Not all tests and measurements were performed on every sample.

In 2025, the QSE-5 cell passed UN38.3 certification, marking a significant milestone in its development and readiness for global deployment. This certification, governed by Section 38.3 of the United Nations Manual of Tests and Criteria, is a rigorous safety standard required for the commercial transport of lithium batteries by air, sea, and land. To earn this certification, the QSE-5 cell underwent a comprehensive series of tests, including altitude simulation, thermal cycling, vibration, impact, external short circuit, overcharge, and forced discharge assessments, which are designed to ensure its resilience under extreme conditions and its safety during transit.

At QS, our work is driven by the conviction that superior safety and elite performance are not mutually exclusive. The inherent stability of our solid-state ceramic separator is the foundation upon which we are building a battery designed to deliver improvements across the board – from safety and cycle life to energy density and charging speed.

Supply Chain

From the outset, we've intentionally engineered our battery architecture to rely on Earth-abundant materials and components sourced from existing supply chains. This approach not only supports scalability but also helps reduce the environmental impact associated with raw material extraction and processing—particularly by eliminating the use of graphite, a highly carbon-intensive material commonly found in conventional batteries.

Our commitment to responsible sourcing is reinforced by our Supplier Code of Conduct, formalized in 2022. As we move closer to commercial production and begin to define the specific materials and volumes required, we are actively evaluating long-term supply chain partners. Our goal is to identify

and collaborate with suppliers who either demonstrate strong environmental sustainability practices or are committed to improving them. [An example of this in action is our recent agreement with Murata Manufacturing Co. to collaborate on high-volume manufacturing of ceramic films.](#)

Looking ahead, we will continue to prioritize supply chain partners who align with our sustainability values and are willing to evolve alongside us.

Workplace Health and Safety

We prioritize proactive management of environmental, health, and safety risks through a sophisticated framework that integrates engineering controls, established policies, detailed procedures, ongoing training, continuous monitoring, and regular audits. A proactive safety culture is fundamental to our operations, ensuring we prevent injuries and maintain full regulatory compliance.

We are consistently enhancing our safety protocols. This involves conducting meticulous hazard assessments during all phases of building and equipment design, performing comprehensive job hazard analyses, and implementing strict sign-off procedures. Furthermore, our commitment extends to robust new employee integration training and emergency response team drills.



In 2024, we logged a total of ten OSHA recordable incidents. The majority were ergonomics related – six industrial and two office, along with one laceration and one trip and fall. We are pleased to report a continued absence of chemical related OSHA incidents since 2017. Our 2024 OSHA Total Recordable Incident Rate (TRIR) of 1.1 outperformed the 2023 automobile and light duty motor vehicle manufacturing sector TRIR (<https://www.bls.gov/web/osh/table-1-industry-rates-national.htm>).

We remain steadfast in our dedication to cultivating a strong culture that champions environmental protection, employee well-being, and overall sustainability across all our endeavors.

People & Culture

Human resources management at QuantumScape is not just a series of policies and systems, but the fostering of the people and behaviors that make it a high-trust, high-performing, mission-driven place to work. Business partners create practical tools and programs that make QuantumScape a place where people trust each other, do great work, achieve results, and continuously improve. How we hire and onboard to how we support performance, growth, and leadership is consistently being evaluated and updated as our company changes.

QuantumScape's culture, based on our core values—Passion for the Problem, Collaborate, Prioritize the Customer, Act Authentically, and Bias to Action— helps us build an effective organization. Fostering a culture of continuous feedback is part of the culture which helps us grow, adjust, and create a virtuous cycle of improvement across teams. Our strength is built on the training, ability, experience, and cultural fit of the individual team members. Ongoing investment in the team enables members to develop their talents and capabilities, expand their experience, and work at their highest potential.

In 2024, we continued to implement existing programs and introduced others designed to promote employees' engagement, advance their skills, and acknowledge and celebrate their achievements, including:

- Quarterly All-Employee meetings
- Separate People & Culture meetings to focus on those topics
- Training for managers by both external consultants and internal team members, including helping leaders engage and develop their team members
- Survey to determine what types of skills managers want to see developed in their employees (which advanced into QuantumScape University in 2025)
- Employee Reward and Recognition Program, including both monetary awards driven by managers as well as a space for employees to formally acknowledge each other
- Mentorship Program for all employees to promote knowledge sharing, cultivate leadership skills, and boost employee engagement
- Clubs to build a sense of community and team spirit
- Tuition reimbursement to employees who wish to continue their education to enhance current knowledge and skills to benefit the individual and QuantumScape
- Employee 360 Feedback program

We believe that employee growth fuels performance. We invest in skill-building, leadership development, and career mobility while also ensuring our compensation strategy supports retention and recognition of high-value contributors. In balancing internal equity with external competitiveness, we offer performance-based incentives such as bonuses, restricted stock units, and employee stock purchase programs, reinforcing alignment with business success.

Inclusive Workplace Strategy

To revolutionize energy storage, QuantumScape needs a team of people with different abilities, perspectives, and backgrounds. Our culture thrives and remains strong when each of those people is treated with dignity, embraced for who they are, and recognized for their worth.

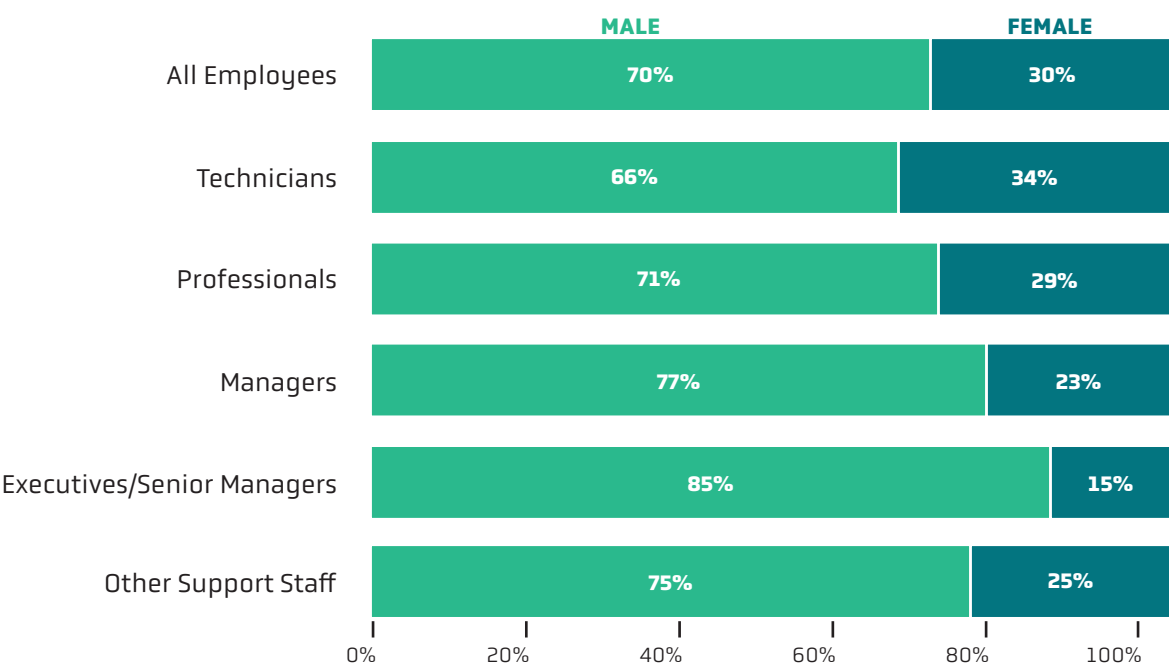
We are committed to ensuring a just and inclusive process for recruitment and advancement and to enhancing diverse representation throughout the organization. For our senior leaders, we provide management training that reinforces effective, equitable leadership practices. Our hiring managers receive bias awareness education to help them recognize and reduce the impact of unconscious bias throughout the recruitment and promotion process. We've also implemented a standardized job level framework, ensuring every candidate is evaluated based on a consistent set of criteria and guided through a structured interview experience. To uphold our promise of equal opportunity in both hiring and advancement, we conduct an annual internal pay equity analysis to help us identify and address any disparities so that all employees receive fair compensation for their contributions.

In 2024 we:

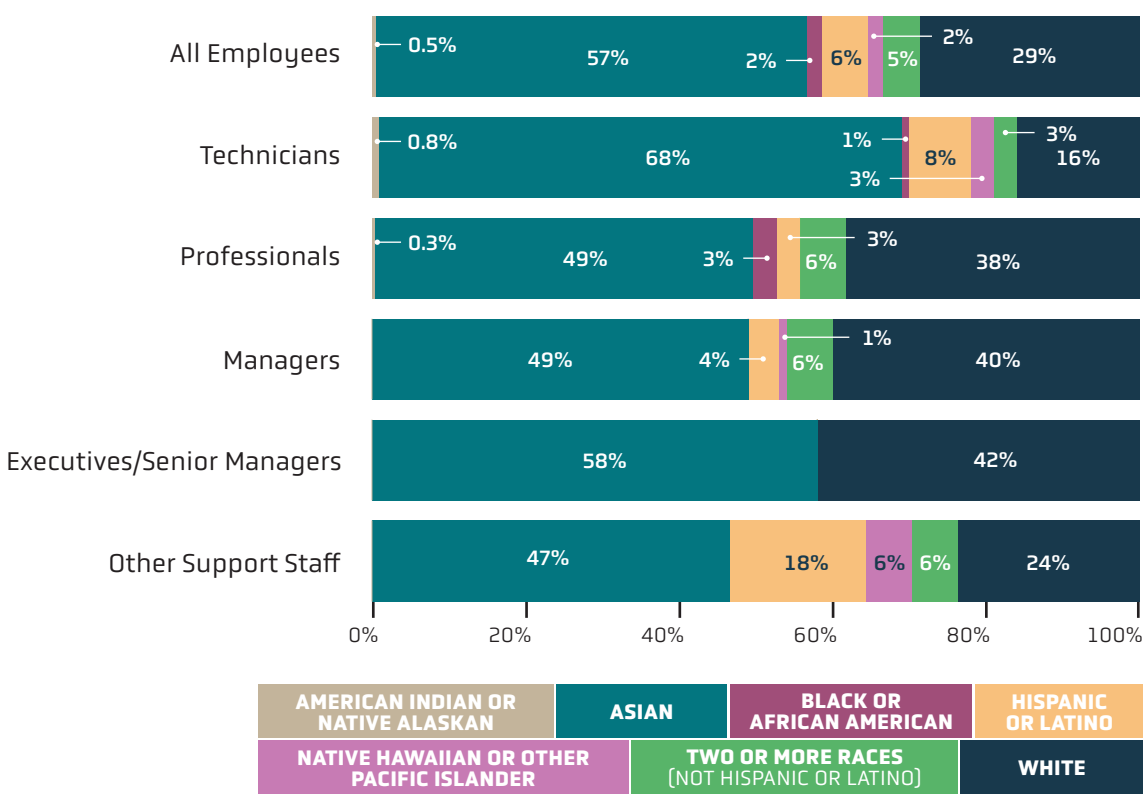
- Continued our “Let Us Talk” series, giving an open platform for employees to ask questions of two senior leaders at each session
- Supported our Employee Resource Groups – gatherings of employees based on common backgrounds, demographic factors, or shared professional interests to help raise awareness of relevant issues, promote professional networking, and contribute to professional and personal development
- Carried on our Women’s Leadership Group for our senior female leaders, bringing and sharing insights from external female leaders from a variety of industries
- Supported Women in Clean Tech and Sustainability, a nonprofit organization that fosters an influential network of professionals to further the roles of women in growing the green economy and making a positive impact on the environment, and
- Embedded women scientists as speakers at external conferences
- Participated at the Women in Batteries conference through the Volta Foundation.

Although similar to 2023 and in-line with most companies in Silicon Valley, we are working to improve gender and ethnic diversity at all levels of the company.

2024 Team Member **Gender Diversity**



2024 Team Member **Ethnic Diversity**



Data Protection and Security

Protecting our information systems, intellectual property, and critical data is a core priority. Our cybersecurity program is fully integrated into our enterprise risk management framework and is designed to identify, assess, and mitigate both internal and external threats. We conduct regular risk assessments to evaluate potential vulnerabilities, the likelihood and impact of threats, and the effectiveness of our existing safeguards. These assessments inform the continuous improvement of our security protocols.

We've established a cross-functional internal security committee—comprising members from IT, legal, finance, internal audit, people operations, and software—to foster a strong security culture across the organization. Senior management oversees our cybersecurity strategy, and all employees and contractors receive mandatory training during onboarding and annually thereafter. To enhance our capabilities, we partner with third-party experts, including consultants and auditors, who help us design, implement, and test our cybersecurity controls. We also leverage a 24/7 Security Operations Center (SOC) to provide Extended Detection and Response (XDR), ensuring real-time monitoring and rapid incident response.

Our board of directors plays an active role in cybersecurity oversight. The audit committee, as outlined in its charter, receives regular updates on cybersecurity risks and mitigation strategies, while the full board is briefed at least annually. This governance structure ensures that cybersecurity remains a strategic priority at the highest levels of the company.

Our information security program is aligned with the Trusted Information Security Assessment Exchange (TISAX), based on ISO/IEC 27001 and 27002 standards and tailored to the automotive industry. We successfully completed our most recent TISAX audit in 2024. To date, we have not experienced any material security breaches or incurred significant costs related to cybersecurity incidents.

By embedding cybersecurity into our culture and operations, we aim to protect our stakeholders, maintain trust, and support the secure advancement of our mission.

Ethics and Compliance

QuantumScape is committed to maintaining the highest standards of ethics and integrity across all aspects of our business. Our Board of Directors has adopted a comprehensive Code of Conduct, available on our website at <https://ir.quantumscape.com/governance/governance-documents>, which applies to all employees, officers, directors, contractors, consultants, and third-party representatives. The Code of Conduct promotes ethical behavior, compliance with laws and regulations, accurate financial reporting, and the prompt reporting of any violations or conflicts of interest. All employees are required to complete training on the Code of Conduct during onboarding and annually thereafter.

Our governance framework is built upon three key board committees: the Audit Committee, the Compensation Committee, and the Nominating and Corporate Governance Committee. These bodies ensure that our ethical standards are upheld and that our governance practices align with stakeholder expectations.

Oversight of the Code of Conduct is managed by the Nominating and Corporate Governance Committee, which regularly reviews and updates it to reflect evolving best practices and regulatory requirements. Any amendments or waivers are disclosed on our website. In addition to the Code of Conduct, we maintain a Global Anti-Bribery and Anti-Corruption Policy that reinforces our zero-

tolerance stance on bribery and corruption in any form, whether involving public officials or private entities. This policy complements the Code by helping employees and partners understand and comply with global anti-corruption laws.

We encourage the reporting of any suspected violations through our compliance officer or whistleblower hotline and strictly prohibit retaliation against individuals who report concerns in good faith. Through these policies and practices, we aim to foster a culture of accountability, transparency, and ethical leadership.

Concluding Remarks

As QuantumScape continues to advance toward commercializing our solid-state lithium-metal battery technology, our commitment to sustainability remains central to our mission. From responsible supply chain practices and circular material recovery to cybersecurity, governance, and environmental stewardship, we are building a foundation designed to support long-term impact. We recognize that true innovation is not only measured by performance, but by the positive change it enables—for our customers, our communities, and the planet. We thank our investors and stakeholders for their continued support and partnership as we work to deliver cleaner, safer, and more sustainable energy solutions for the future.

Sincerely,

A handwritten signature in black ink that reads "Siva Sivarman". The signature is written in a cursive style with a prominent underline.

Siva
President, CEO and Director

Forward-looking Statements

This letter contains forward-looking statements within the meaning of U.S. federal securities laws, including, but not limited to, statements regarding our goals, strategies, business plans, and expectations surrounding the commercialization of our solid-state lithium-metal battery technology, sustainability practices, and potential partnerships or business model shifts. Forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statements. These risks include, but are not limited to, the timing of development and commercialization efforts, the ability to meet technical milestones, changes in market conditions, and our ability to maintain strategic partnerships and sustainability efforts. We encourage you to review our filings with the Securities and Exchange Commission for a full discussion of the risks that could affect our business and future performance. Forward-looking statements speak only as of the date they are made, and we undertake no obligation to update them in light of new information or future events.