This presentation contains forward-looking statements within the meaning of the federal securities laws and information based on management’s current expectations as of the date of this presentation. All statements other than statements of historical fact contained in this presentation, including statements regarding QuantumScape’s future operating results, financial position, business strategy, addressable market, anticipated benefits of its technologies, projected factory economics, pro forma information, and plans and objectives for future operations and products are forward-looking statements. When used in this presentation, the words “may,” “will,” “expect,” “plan,” “believe,” “potential,” “predict,” “target,” “should,” “would,” “could,” “continue,” “believe,” “project,” “intend,” “anticipates” the negative of such terms and other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain such identifying words. These forward-looking statements are based on management’s current expectations, assumptions, hopes, beliefs, intentions and strategies regarding future events and are based on currently available information as to the outcome and timing of future events. QuantumScape cautions you that these forward-looking statements are subject to all of the risks and uncertainties, most of which are difficult to predict and many of which are beyond the control of QuantumScape, incident to its business.

These forward-looking statements involve significant risks and uncertainties that could cause the actual results to differ materially from the expected results. Many of these factors are outside QuantumScape’s control and are difficult to predict. Factors that may cause such differences include, but are not limited to: (i) QuantumScape faces significant barriers in its attempts to produce a solid-state battery cell and may not be able to successfully develop its solid-state battery cell, which will negatively impact the business; (ii) if QuantumScape’s batteries fail to perform as expected, QuantumScape’s ability to develop, market and sell its batteries could be harmed; (iii) QuantumScape may encounter substantial delays in the design, manufacture, regulatory approval, and launch of QuantumScape’s solid-state battery cells, which could prevent QuantumScape from commercializing any products it determines to develop on a timely basis, if at all; (iv) QuantumScape has a relatively short operating history and operates in a rapidly evolving industry, which makes it difficult to evaluate future prospects and may increase the risk that it will not continue to be successful; (v) QuantumScape is unable to adequately control the costs associated with its operations and the components necessary to build its solid-state battery cells; (vi) QuantumScape may not be successful in competing in the battery market industry or establishing and maintaining confidence in its long-term business prospects among current and future partners and customers and (vii) the duration and impact of the COVID-19 pandemic on QuantumScape’s business. QuantumScape cautions that the foregoing list of factors is not exclusive. QuantumScape cautions readers not to place undue reliance upon any forward-looking statements, which speak only as of the date made. Further information about factors that could materially affect QuantumScape, including its results of operations and financial condition, is set forth under the “Risk Factors” section in the Form 8-K filed by QuantumScape with the SEC on December 2, 2020.

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# Agenda

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<tr>
<th>Section</th>
<th>Moderator</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
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<td><strong>QuantumScape Overview and Results</strong></td>
<td>Jagdeep Singh, CEO</td>
<td></td>
</tr>
<tr>
<td><strong>Battery Science Panel</strong></td>
<td>Dr. David Danielson (Moderator)</td>
<td>Dr. Stanley Whittingham, Dr. Paul Albertus, Dr. Venkat Viswanathan, Dr. Tim Holme</td>
</tr>
<tr>
<td><strong>Commercial Impact on EVs Panel</strong></td>
<td>Dr. David Danielson (Moderator)</td>
<td>Dr. Jurgen Leohold, JB Straubel</td>
</tr>
<tr>
<td><strong>Questions &amp; Answers</strong></td>
<td>Jagdeep Singh, CEO</td>
<td></td>
</tr>
</tbody>
</table>
Management Team

Select Management Team Members

**JAGDEEP SINGH**
Founder / CEO (Chairman)
- Founder / CEO Infinera (NASDAQ: INFN); Lightera, now Ciena (NASDAQ: CIEN); OnFiber, now Qwest; AirSoft
- MS Computer Science, Stanford

**PROF. FRITZ PRINZ**
Founder & Chief Scientific Advisor (Board Member)
- Chair, Mechanical Engineering, Stanford
- Professor, Materials Science, Stanford
- PhD, Physics, University of Vienna

**DR. TIM HOLME**
 Founder & Chief Technology Officer
- Research Associate, Stanford
- Ph.D. & MS Mechanical Engineering, Stanford
- BS Physics, Stanford

**DR. MOHIT SINGH**
Chief Development Officer
- CTO and co-founder, SEEO
- Solid-state energy storage world expert
- Ph.D. Chem & Biomol Eng, Tulane
- Postdoc, Polymers, Berkeley

**KEVIN HETTRICH**
Chief Financial Officer
- Bain Capital
- McKinsey & Company
- US Department of Energy
- MBA & MS, Stanford

**HOWARD LUKENS**
Chief Sales Officer
- VP WW Sales, Infinera (NASDAQ: INFN)
- VP Strategic Sales, Ciena (NASDAQ: CIEN)
- VP WW Sales, Lightera

**JAY UNDERWOOD**
Vice President, Sales
- Sales Director, Northern Europe, Infinera
- Product Planning, Infinera
- MS Technology

**MIKE MCCARTHY**
Chief Legal Officer & Head of Corp. Dev.
- CLO & CAO, Infinera (NASDAQ: INFN)
- SVP & General Counsel, Ciena (NASDAQ: CIEN)
- J.D. Vanderbilt
Backed by Leading Investors

SELECT BOARD MEMBERS AND INVESTORS

KENSINGTON CAPITAL ACQUISITION CORP

- Management and board with extensive public company experience and operating capabilities in the automotive and automotive-related sector
- Relevant automotive experience to optimize program launches and capital deployment while facilitating commercial relationships
- Track record of creating significant shareholder value in automotive businesses

EXISTING INVESTORS

SELECT BOARD MEMBERS AND INVESTORS

KENSINGTON

- Management and board with extensive public company experience and operating capabilities in the automotive and automotive-related sector
- Relevant automotive experience to optimize program launches and capital deployment while facilitating commercial relationships
- Track record of creating significant shareholder value in automotive businesses
By the Numbers

>$1.5B of Committed Capital¹
Over $300M spent on development to date

10 Years of R&D Investment
Founded in 2010

250+ Employees
World Class Next-gen Battery Development Team

200+ Patents²
Materials, Use and Process

Extensive Trade Secrets
Processes and Intellectual Property

---

1. Prior to its merger with Kensington, QuantumScape secured over $800 million in committed funds. With the addition of the $700 million from its merger with Kensington and subsequent PIPE financing, QuantumScape will have received more than $1.5 billion in commitments to date.
2. Includes patents and patent applications.
Volkswagen Group Overview

- ~11 million vehicles produced in FY2019
- ~$38 billion investment in electric mobility by 2024
- Plans to launch ~70 electric vehicle models and produce 22 million electric vehicles by 2029

Volkswagen Partners with QuantumScape

1. Corporate funding commitment of $300+ million
2. Strong relationship since 2012, including development collaboration, testing of prototype cells and representation on the QS board of directors
3. Founded a JV to prepare for the mass production of solid-state batteries for Volkswagen

"Volkswagen has become the largest shareholder of QuantumScape. Our US$100 million investment is a key building block in the Group’s battery strategy. One of the long-term targets is to establish a production line for solid-state batteries by 2025."

- Herbert Diess, Volkswagen AG CEO

"The Volkswagen Group has established a joint venture with QuantumScape, a manufacturer of solid-state batteries. The shared goal of the companies is large-scale production..."

- Oliver Blume, Porsche CEO

"In June 2020, the Volkswagen Group also announced plans to increase its shareholding in the US battery specialist QuantumScape. The objective is to promote the joint development of solid-state battery technology. In the future, solid-state batteries should result in a significantly increased range and faster charge times. They are regarded as the most promising approach to electric mobility for generations to come. Volkswagen has already been collaborating with QuantumScape since 2012 and is the largest automotive shareholder thus far. Both founded a joint venture in 2018, the aim of which is to prepare the mass production of solid-state batteries for Volkswagen."

- Volkswagen Group Half-Yearly Financial Report, July 2020

Need battery breakthrough to enable electrification of remaining 98% of market

Customer Requirements for Mass Market Adoption

- **Energy / Capacity**: >300 mile range
- **Fast Charging**: Charge in <15 min
- **Cost**: < $30K, 300 mile EVs
- **Battery Lifetime**: >12 years, >150k miles
- **Safety**: Solid, non-oxidizable separator

2% PHEV + BEV Penetration

Source: International Organization of Motor Vehicle Manufacturers (OICA); IEA

(1) Based on 2019 global vehicle production; includes passenger vehicles, heavy trucks, buses and coaches (OICA). Battery opportunity assumes $100/KWh and 50KWh+ battery pack.

(2) % of Global Car Stock in 2019 (IEA).
Lithium-Metal Anode is Required for High Energy Density

And Lithium metal anode requires a solid-state separator

Key Takeaways

- Lithium-metal anode necessary to achieve high energy density
- Lithium-metal cannot be used without a solid-state separator

QuantumScape Zero Li Anode-free Architecture

Improved cost, energy density, safety

Conventional Liquid Battery

- Anode Current Collector
- Graphite / Silicon Anode
- Liquid Electrolyte
- Porous Separator
- Cathode Active
- Liquid Electrolyte
- Cathode Current Collector

QuantumScape Solid-State Battery

- Discharged (as manufactured)
  - Anode Current Collector
  - Lithium-Metal Solid-State Separator
  - Cathode Active
  - Catholyte
- Charged
  - Anode Current Collector
  - Lithium-Metal Anode

1. Anode-free Manufacturing
   - Anode-free cell design with lithium plated during charge cycles

2. Solid-State Separator
   - Ceramic electrolyte with high dendrite resistance

3. Lithium-Metal Anode
   - High-rate cycling of a lithium-metal anode
QuantumScape Energy Density

Energy-optimized Cell Designs

Source: Argonne National Laboratory; Management estimates

1 Lithium, iron, and phosphate
2 Nickel, manganese, and cobalt
3 Nickel, cobalt, and aluminum
# Lithium Metal Architecture

Lithium metal architecture addresses multiple requirements simultaneously:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Energy</strong></td>
<td>Significantly increases volumetric and gravimetric energy density by eliminating graphite/silicon anode host material.</td>
</tr>
<tr>
<td><strong>Fast Charge</strong></td>
<td>Enables &lt;15-minute fast charge (0 to 80%) by eliminating lithium diffusion bottleneck in anode host material.</td>
</tr>
<tr>
<td><strong>Life</strong></td>
<td>Increased life by eliminating capacity loss at anode interface.</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>Eliminates organic separator. Solid-state separator is nonflammable and noncombustible.</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>Lower cost by eliminating anode host material and manufacturing costs.</td>
</tr>
</tbody>
</table>
### Previous Attempts Have Been Unsuccessful

<table>
<thead>
<tr>
<th>Separator Requirements</th>
<th>Ionic liquids</th>
<th>Additives / Protected Layer</th>
<th>Gel</th>
<th>Polymer</th>
<th>Sulfides</th>
<th>Phosphates &amp; Perovskites</th>
<th>Garnets</th>
<th>LiPON, borohydrides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conductivity</td>
<td>X</td>
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</tr>
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<td>X = challenge</td>
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<td>X</td>
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</tbody>
</table>

1. **Conductivity**: Requires the separator to have high conductivity, but ionic liquids and LiPON are problematic.
2. **Separator-Anode ASR**: Indicates a challenge in maintaining an adequate anode-to-separator ratio, with organics and inorganics showing issues.
3. **Lithium metal stability**: Shows a challenge in maintaining stability, with organics and inorganics indicating difficulties.
4. **Dendrite resistance**: Requires the separator to resist dendrite formation, with organics and inorganics showing significant challenges.

**Also must be thin and continuously processed at low cost over large area.**
Video

Why has it been so challenging to develop Solid-State Batteries?
## Existing Separators Only Work Under Severely Compromised Conditions

<table>
<thead>
<tr>
<th>Issue</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Current Density while Charging</td>
<td>Slow Charge</td>
</tr>
<tr>
<td>• Low Cathode Loading or Low C-rate</td>
<td></td>
</tr>
<tr>
<td>Low Cycle Life</td>
<td>Life</td>
</tr>
<tr>
<td>• &lt; 800 cycles</td>
<td></td>
</tr>
<tr>
<td>Limited Temperature Range</td>
<td>Cost</td>
</tr>
<tr>
<td>• Elevated only</td>
<td>Complexity</td>
</tr>
<tr>
<td>Requires Excess Lithium</td>
<td>Low Energy</td>
</tr>
</tbody>
</table>
QuantumScape Material & Cell

CERAMIC SOLID-STATE SEPARATOR

SINGLE LAYER POUCH CELL

85mm

70mm
Fast Charging

Fast charge capability exceeds commercial targets with commercial area single layer prototype

80% Charge in 15 minutes. Lithium Ion batteries currently only get to <50% in 15 minutes
Material Performance: Dendrite Resistance

Material entitlement exists for full charge in <5 min

Solid-state separator resists dendrites even at very high current density

Based on solid-state separator material testing

Extreme high rate lithium plating

Li/Li symmetric cell
Single Layer
45 °C

2-min charge
25C rate
>100mA/cm²

15-minute charge
4C Rate
16mA/cm²

Previous solid-state

Current density [mA/cm²]

Cumulative charge [mAh/cm²]

Lithium plated [μm]

0 1 2 3 4 5 6 100 80 60 40 20 0

0 5 10 15 20 25 30
Power

Passed simulated OEM-specified track cycle with commercial area prototype

QS solid state cells can deliver aggressive automotive power profiles

OEM Track Cycle

Power

Commercial area (70x85mm) prototype
Zero Excess Li, 3.2mAh/cm², Single Layer
15 min fast charge to 80% SOC at 45 °C (~280 mi in 15 min for 350-mile range BEV)
High power track profile discharge
Battery Life

Meets commercial target with commercial area single layer prototype

Cycling with >80% energy retention in 800+ cycles (still on test)

Chart based on accelerated testing (3x automotive rates)

Ev Battery Warranties

Commercial target:
800 cycles, 80% fade (240,000 miles)

1) Source: MyEV.com and Tesla.com
Material Performance: Low Temp

Operability shown at lower end of automotive temperature range with single layer prototype (30 x 30 mm)

Significant capacity is accessible even at -30° Celsius

![Graph showing voltage vs. active specific capacity for different temperatures.](image)

- Extreme low temperature operation

30x30 mm, Single Layer
Charge: C/3 at 30 °C
Discharge: C/3 at low temp
Cycling with commercial area single layer prototype at low temperature (-10°C Celsius)

Note: cells still on test

Cell Performance: Low Temp

Commercial area (70x85mm) prototype
Li-free, 3.2mAh/cm², Single Layer
C/5 charge and C/3 discharge
-10 °C
Material Performance: Thermal Stability

Solid state separator is not combustible and has high thermal stability.

Lithium anode is chemically stable with separator and foil, even when molten.

Based on solid-state separator material testing.

Unlike a liquid electrolyte, QS solid-state separator has no appreciable reaction with molten lithium metal.
Dr. Frank Blome
Head of the Battery Center of Excellence of Volkswagen AG
**Previous Lithium Metal Cells Have Been Commercially Unsuccessful**

<table>
<thead>
<tr>
<th>Performance Requirements</th>
<th>Liquids</th>
<th>Polymers</th>
<th>Sulfides I</th>
<th>Sulfides II</th>
<th>Oxides</th>
<th>Performance Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Charge rate</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>4C fast charge</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fast charge</td>
</tr>
<tr>
<td>2 Cycle life</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>&gt;800 cycles</td>
</tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Vehicle life &amp; cost of ownership</td>
</tr>
<tr>
<td>3 30 °C operation</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>30 °C cycling</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cold temperature driving</td>
</tr>
<tr>
<td>4 Anode-free</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>Li-free</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Energy density (excess lithium required)</td>
</tr>
</tbody>
</table>
Today’s Panel Discussions

Battery Science Panel

Dr. David Danielson
- Managing Director, Breakthrough Energy Ventures
- Precourt Energy Scholar, Stanford
- Former Head of US DOE EERE Program

Dr. Stanley Whittingham
- Co-Inventor of the Lithium-Ion Battery
- 2019 Chemistry Nobel Prize Winner
- Distinguished Professor of Chemistry, Binghamton University (SUNY)
- Member QuantumScape Science Advisory Committee

Dr. Paul Albertus
- Former head, US DOE ARPA-E IONCS Solid-State Battery program
- Assistant Professor of Chemistry, University of Maryland

Dr. Venkat Viswanathan
- Battery expert, former lithium-air researcher
- Assistant Professor of Mechanical Engineering, Carnegie-Mellon University
- Member QuantumScape Science Advisory Committee

Dr. Tim Holme
- Founder and Chief Technology Officer, QuantumScape
- Research Associate, Stanford
- Ph.D. & MS Mechanical Engineering, Stanford

Commercial Impact on the EV Market

JB Straubel
- Co-founder and CEO of Redwood Materials
- Co-founder and Former Chief Technology Officer, Tesla
- Board Member, QuantumScape

Dr. Jürgen Leohold
- Board Member, QuantumScape
- Former Head Group Research, Volkswagen
- Former Professor Vehicle Systems and Electrical Engineering, University of Kassel
- Board Member, QuantumScape
Come join our team
www.quantumscape.com