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Forward-Looking Statements

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," "estimate," "expect," "plan," "predict," "target," "should," "would," "could," "can" "project," "intend," "anticipate," "brink" 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.

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 ones listed here. 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. Building high volumes of multilayer cells in commercially relevant area and with higher layer count requires substantial development effort. QuantumScape could encounter significant delays and/or technical challenges in replicating the performance seen in its single-layer and early multilayer cells and in achieving the high quality, consistency and throughput required for commercial production and sale. QuantumScape may encounter delays and other obstacles in acquiring, installing and operating new manufacturing equipment for automated and/or continuous-flow processes, including vendor delays (which we have already experienced) and other supply chain disruptions and challenges optimizing complex manufacturing processes. QuantumScape may encounter delays in hiring the engineers it needs to expand its development and production efforts, delays in building out QS-0, and delays caused by the COVID-19 pandemic. Delays in increasing production of engineering samples would slow QuantumScape's development efforts. These or other sources of delay could delay our delivery of A-samples and B-samples. Delays or difficulties in meeting technical milestones could cause prospective JV partners not to purchase cells from our pre-production line or not to proceed with a manufacturing joint venture. QuantumScape may be unable to adequately control the costs associated with its operations and the components necessary to build its solid-state battery cells at competitive prices. QuantumScape's spending may be higher than currently anticipated. QuantumScape may not be successful in competing in the battery market industry or establishing and maintaining confidence in its long-term business prospectus among current and future partners and customers. 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.

This presentation contains projections with respect to QuantumScape, namely, forecasted estimates of cell-level energy and power density, active materials cost, and cost implications of inactive materials. Such projections constitute forward-looking information and is for illustrative purposes only and should not be relied upon as necessarily being indicative of or predictive of actual future results. The assumptions and estimates underlying such projections are inherently uncertain and are subject to a wide variety of significant business, economic, competitive and other risks and uncertainties that could cause actual results to differ materially from those contained in the projections. Actual results may differ materially from the results contemplated by the projections contained in this presentation, and the inclusion of such information in this presentation should not be regarded as a representation by any person that the results reflected in such projections will be achieved.

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4 Key Premises Behind the QuantumScape Opportunity

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- **Combustion powertrains are being replaced by battery-electric powertrains**
  BEV share of global light vehicle market grew from ~3% in 2020 to ~6% in 2021

- **Anode-free lithium-metal technology can offer compelling benefits over conventional lithium-ion batteries**
  QS has shown an architecture with the potential for greater energy density, and published data showing the ability to charge 10–80% in 15 minutes with a noncombustible separator

- **QS can scale up layer count while maintaining cycling performance**
  QuantumScape has successfully scaled up single-layer cells to multilayer cells without significant degradation to cycling performance (capacity retention)

- **QS can scale up production to industrial levels**
  QS-0 production line under development

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QS By The Numbers

$2B+ of Capital Investment
$500M+ spent on development to date

12 Years of R&D Investment

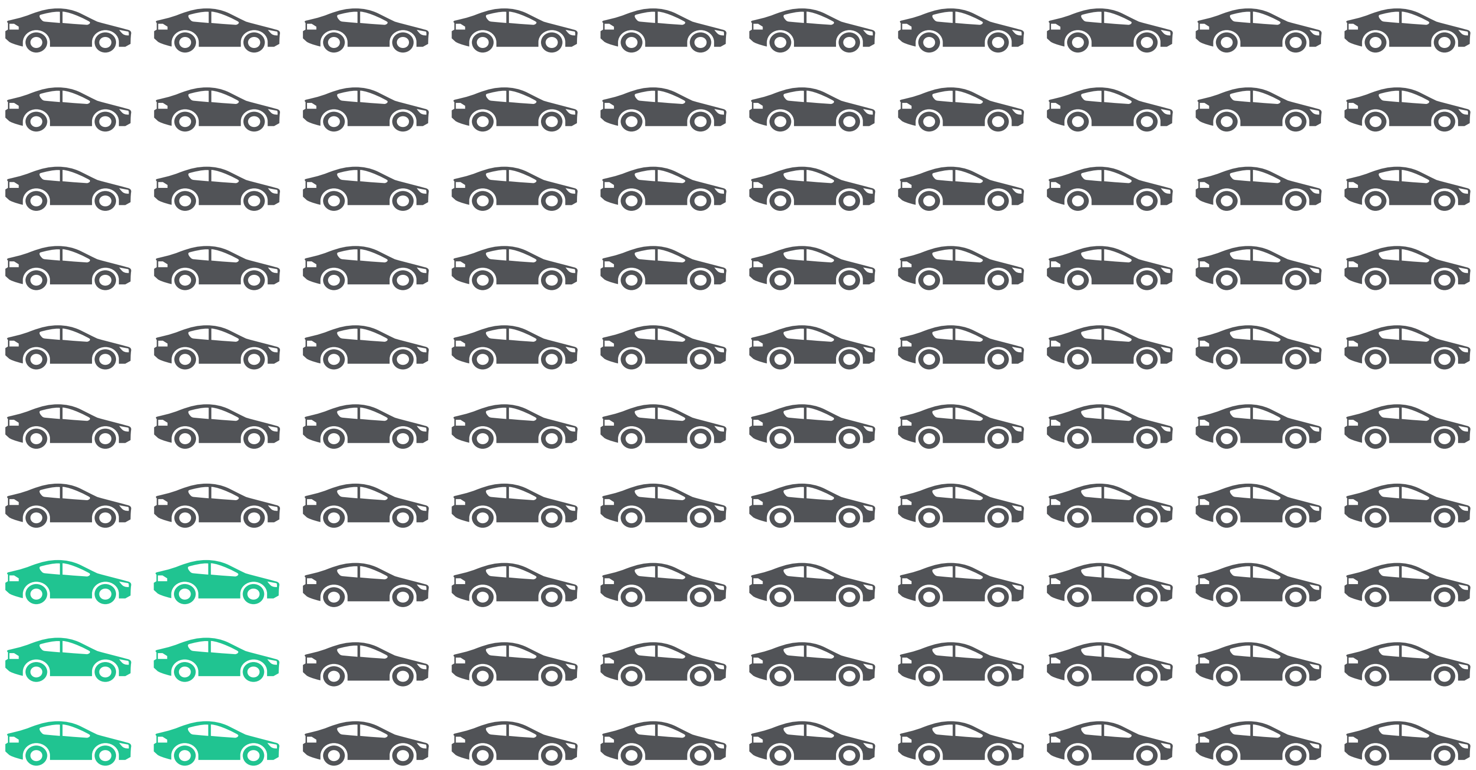
600+ Employees
World-class next-gen battery development team

300+ Patents and Patent Applications
Materials, use and process

6 Commercial Agreements with Automotive OEMs

Deep Partnership with Volkswagen Group
Strategic investor, JV partner and board representation

EVs Currently ~6% of Global Light Vehicle Market*



Customer Requirements for Mass-Market Adoption

Energy / Capacity
>300-mile range

Fast Charging
Charge in <15 min

Safety
Solid, non-oxidizable separator

Battery Lifetime
>12 years, >150k miles

Cost
< $30K, 300-mile EVs

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*Source: Morgan Stanley

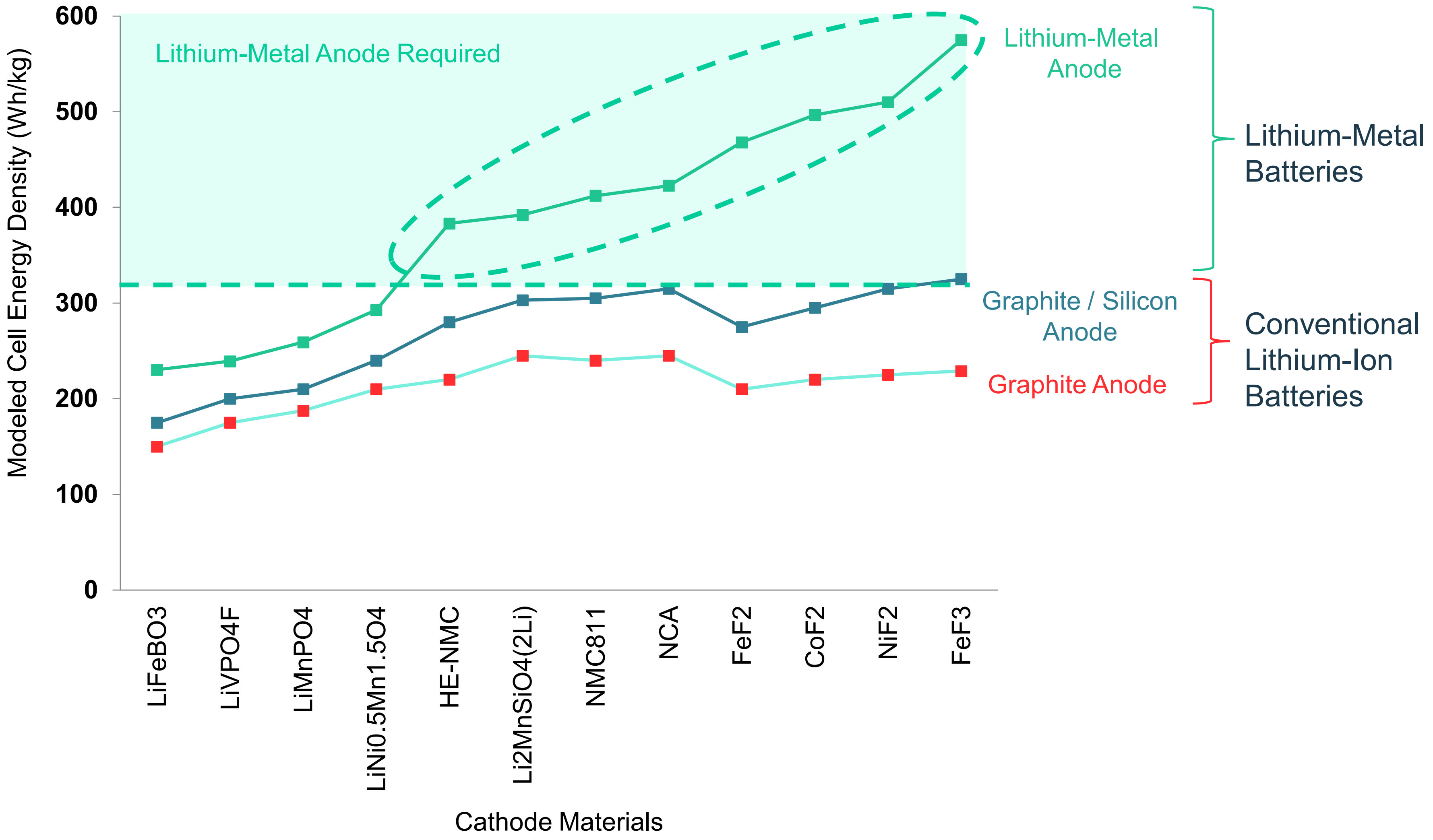
Conventional Lithium-Ion Battery Architecture

Hosted Anode: Graphite / Silicon

Conventional Li-ion Battery

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

Source: Andre *et al*, *J Mater Chem A*, (2015) 6709
Note: Modeled cell specific energy is based on traditional cell designs and architectures

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QuantumScape Anode-free Architecture

Improved cost, energy density, safety

Conventional Li-ion Battery

QuantumScape Solid-State Battery

Discharged
(as manufactured)

Charged

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

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Lithium-metal architecture can address multiple requirements

Energy	Significantly increases volumetric and gravimetric energy density by eliminating graphite/silicon anode host material
Fast Charge	Enables <15-minute fast charge (10-80%) by eliminating lithium diffusion bottleneck in anode host material
Safety	Eliminates organic separator. Solid-state separator is nonflammable and noncombustible
Cycle Life	Improves cycle life by reducing capacity loss at anode interface
Cost	Eliminates anode host material and related manufacturing costs

Previous Attempts Have Been Unsuccessful

Separator / Electrolyte Requirements	Lithium-Metal Anode				
	Organics			Inorganics	
	Liquids	Gels	Polymers	Sulfides	Oxides
1 Conductivity *Fast charge*	✓	✓	X	✓	✓
2 Separator-Anode ASR *Power, temperature*	X	X	X	✓	X
3 Low (lithium metal) and high-voltage stability *Power, temperature, cycle life*	X	X	X	X	✓
4 Dendrite resistance *Power, temperature, cycle life*	X	X	X	X	X

Separator also must be thin and continuously processed at low cost over large area

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Incapable Separator Requires Compromised Test Conditions

	Compromise	Impact
Revert to Hosted Anode	Reversion to Carbon / Silicon Anode or Excess Lithium	Low Energy
Compromised Test Conditions or Performance	Low Current Density while Charging • <3 mA/cm² or <1C-rate	Slow Charge
	Low Cycle Life • <800 cycles	Cycle Life
	Limited Temperature Range • >30 °C	Cost Complexity
	High Pressure • >5 atm	Energy Density Cost

Challenge: The “AND” Requirements Test

Historically, solid-state batteries haven’t been able to meet all simultaneously

No single accepted standard test since batteries have different requirements and operating conditions are so varied

For EV market, a good start is a ***simultaneous*** test of:

Can be combined as current density

Charging Rate
- At least 1C-rate, >3 mA/cm^2
- <~40 min 10-80% SOC

Cathode Loading
- ≥3 mAh/cm^2
- High active-to-inactive material ratio

Operating Temperature
- ≤30 °C
- Doesn’t require power source to heat up

Cycle Life
- 800 cycles
- Equivalent to 240,000 miles for 300-mile range car

Anode excess material
- Anode-free
- High energy density; reduced transformation cost

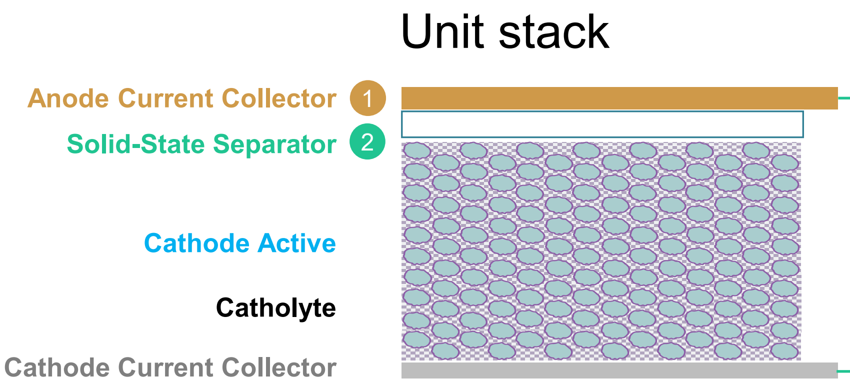
Pressure
- <5 atm
- No bulky or complicated mechanical system

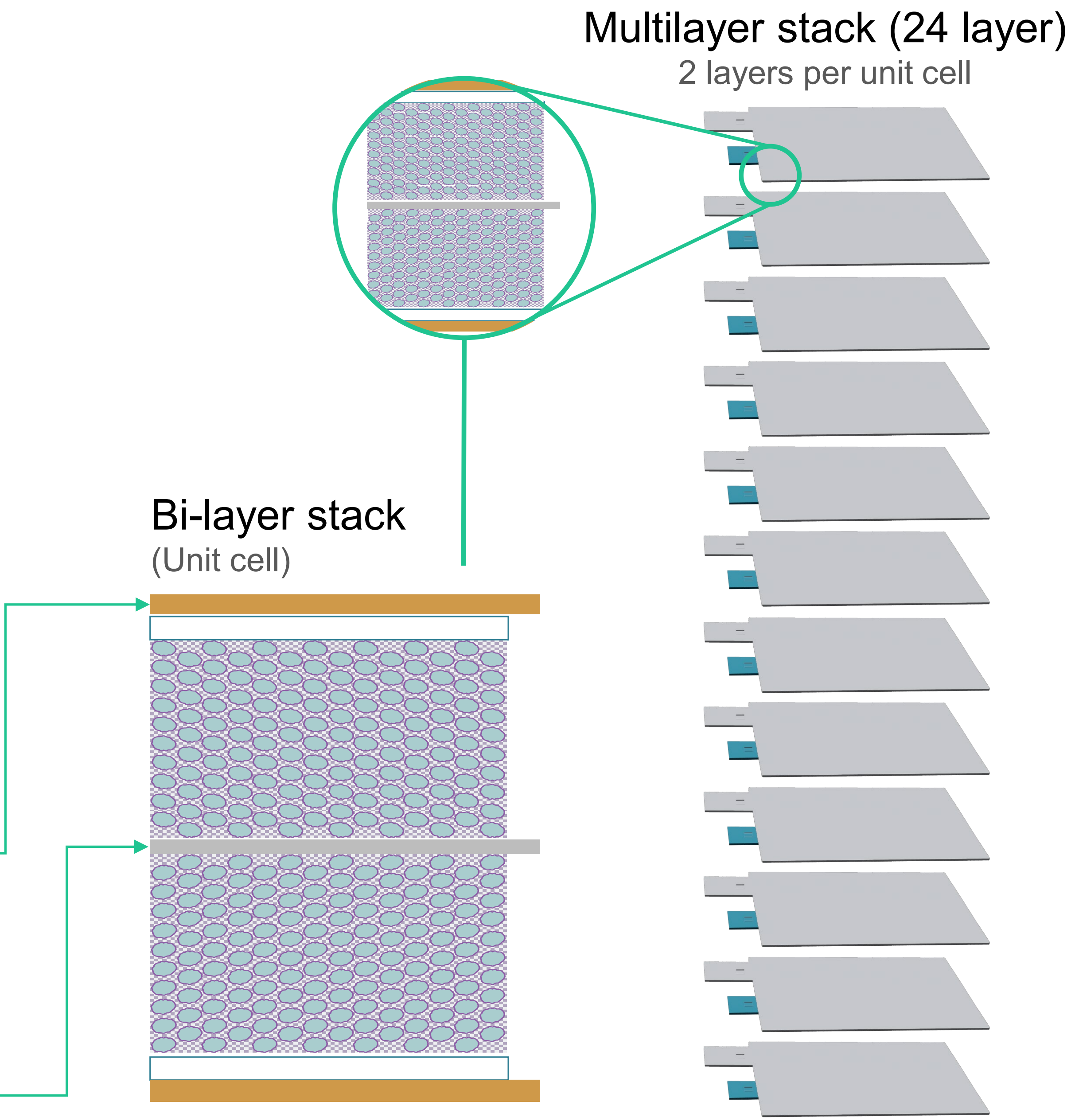
Multilayer Progress

Major Architectural Components
as manufactured

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

2. **Solid-State Separator**
   Ceramic electrolyte with high dendritic resistance





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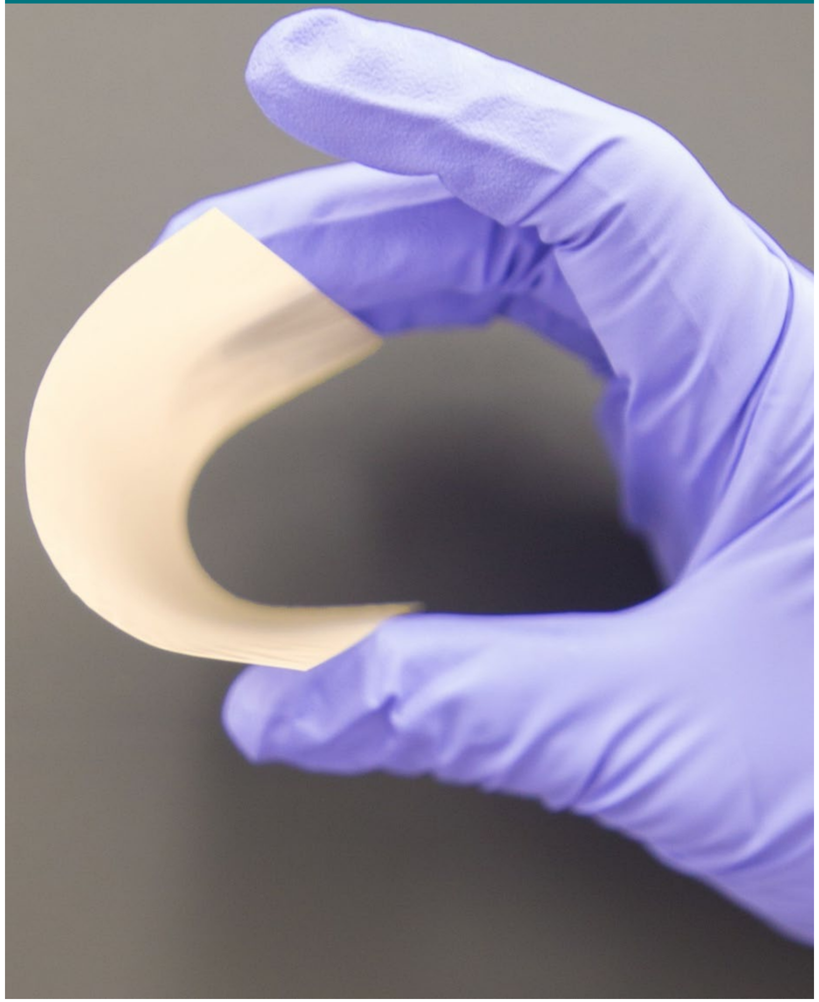
QuantumScape Material & Cell

CERAMIC SOLID-STATE SEPARATOR



SINGLE-LAYER CELL

MULTILAYER CELL PROTOTYPE

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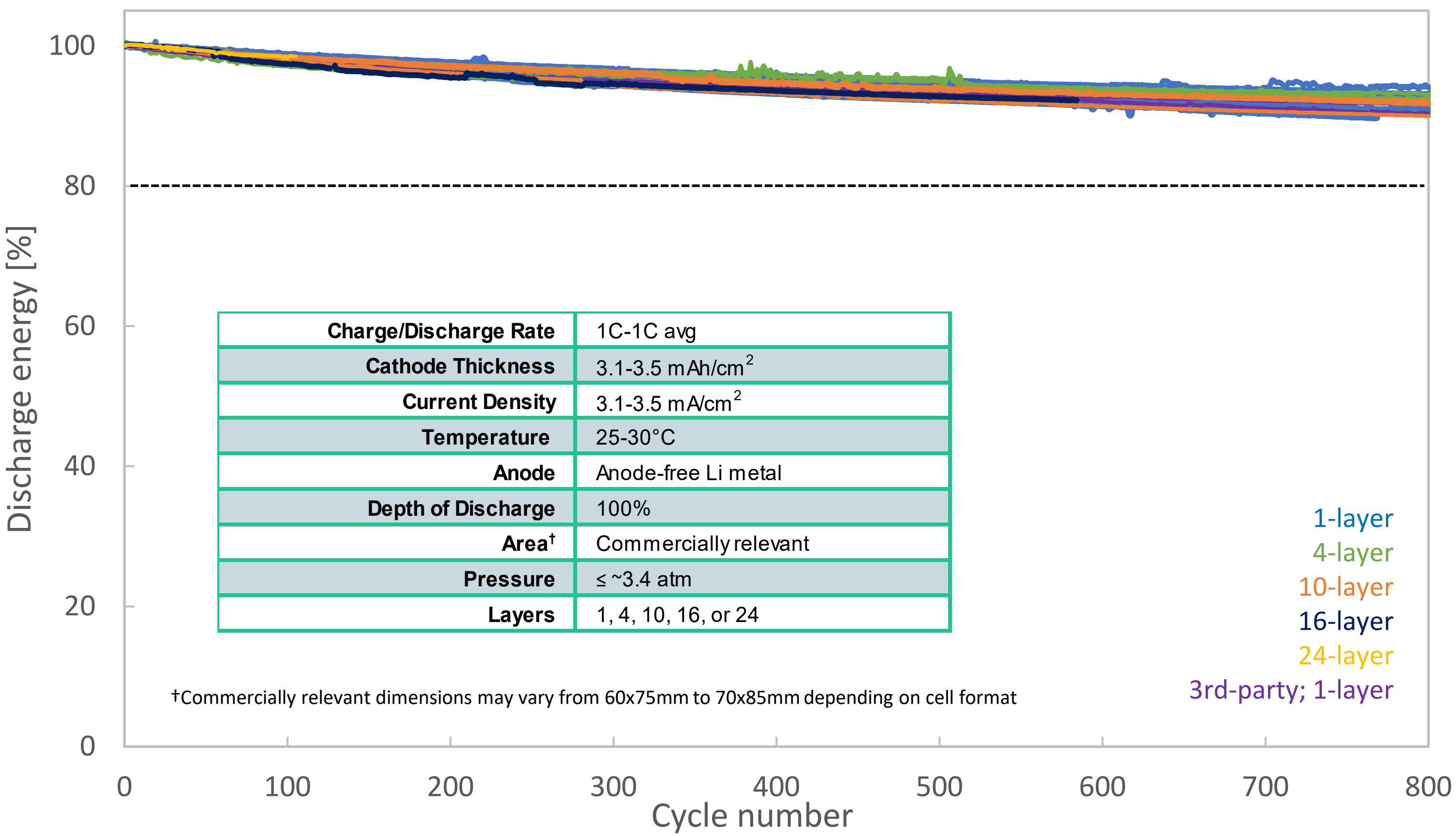
Note: The area of a single-layer cell ranges from 60x75 mm to 70x85 mm, roughly the area of a playing card. Multilayer cell prototype is roughly the size of a deck of playing cards

The *Gold Standard* Test*

Captures key requirements simultaneously, under what we believe are uncompromised test conditions

4-,10-,16-, 24-layer capacity retention mirrors single-layer cycling performance



Charge/Discharge Rate	1C-1C avg
Cathode Thickness	3.1-3.5 mAh/cm^2
Current Density	3.1-3.5 mA/cm^2
Temperature	25-30°C
Anode	Anode-free Li metal
Depth of Discharge	100%
Area†	Commercially relevant
Pressure	≤ ~3.4 atm
Layers	1, 4, 10, 16, or 24

†Commercially relevant dimensions may vary from 60x75mm to 70x85mm depending on cell format

*By “Gold-standard” test conditions we mean: average charge/discharge rates of 1C or faster, temperatures of 25 °C, 100% depth of discharge, and externally applied pressure of no more than ~3.4 atmospheres, all simultaneously.

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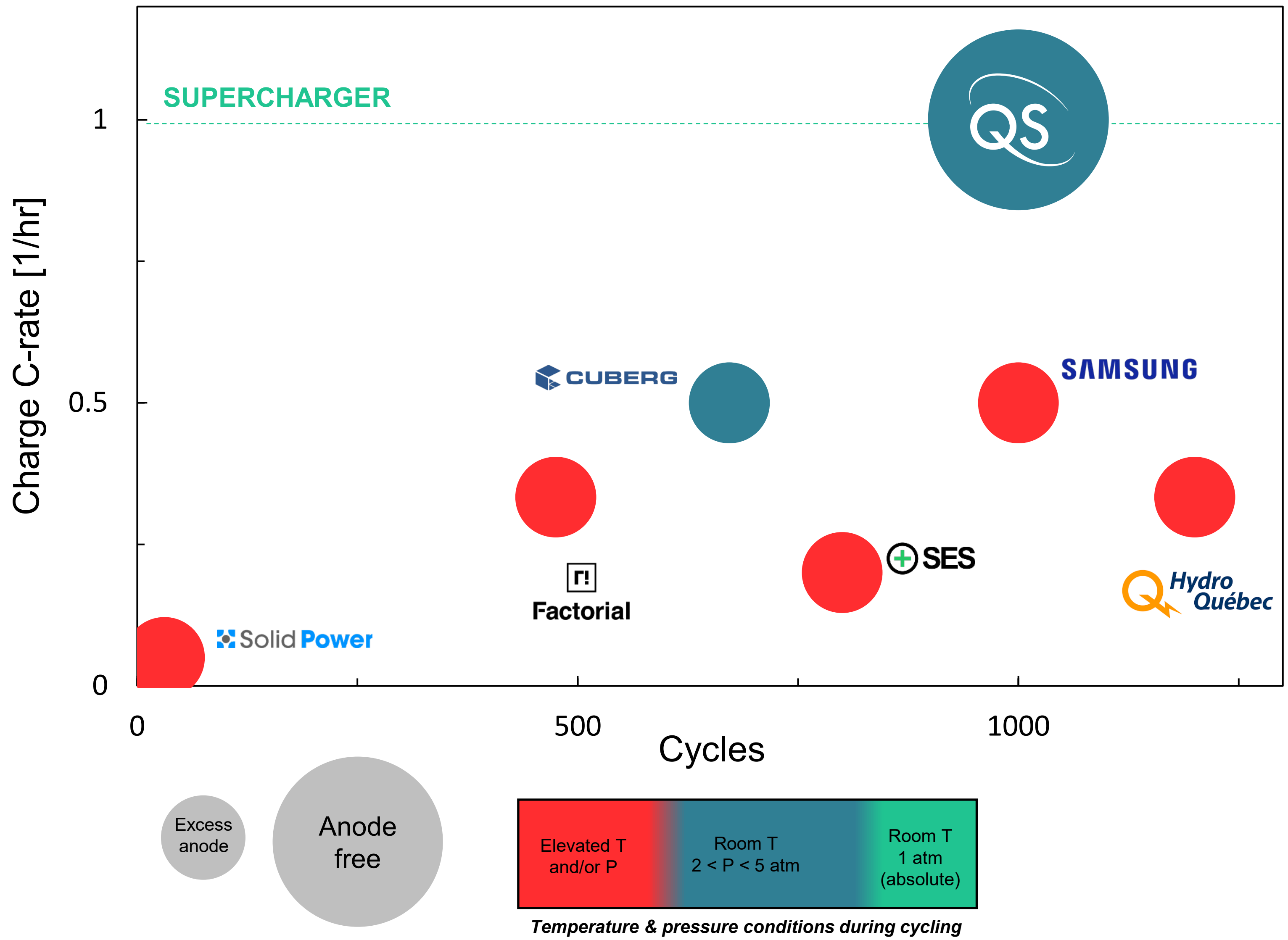
Summary of published results with lithium-metal anodes



Temperature & pressure conditions during cycling

Compromised Test Conditions

Low Charging Current Density
Slower than supercharger

Excess Lithium
Low energy density

Low Cycle Life
< 800 cycles

Limited Temperature Range
Elevated only

High Pressure
Above 5 atm

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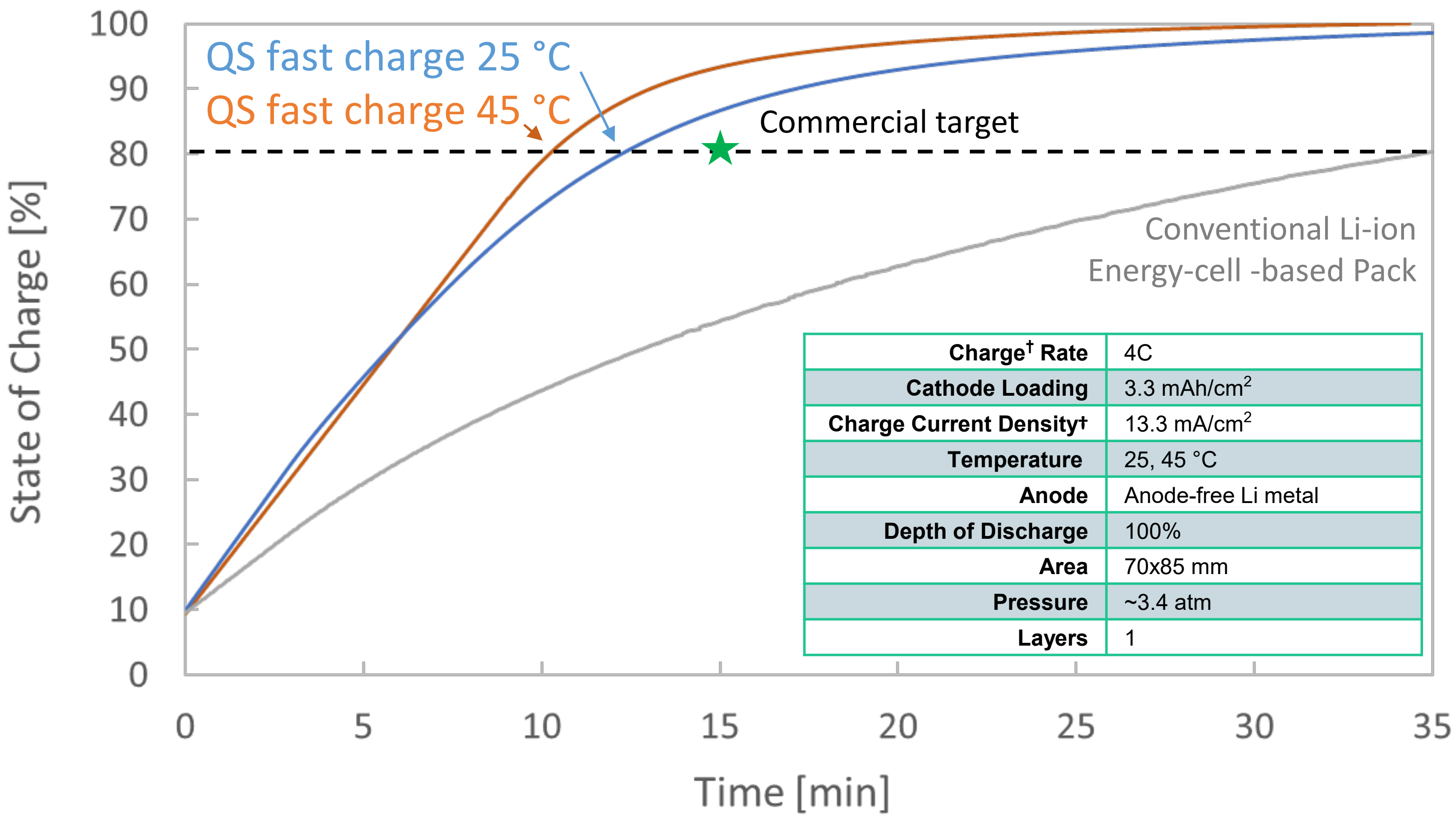
Fast Charging

10-80% charge in
<15 minutes

Fast Charging Results



Charge† Rate	4C
Cathode Loading	3.3 mAh/cm^2
Charge Current Density†	13.3 mA/cm^2
Temperature	25, 45 °C
Anode	Anode-free Li metal
Depth of Discharge	100%
Area	70x85 mm
Pressure	~3.4 atm
Layers	1

Source: cleantechnica.com

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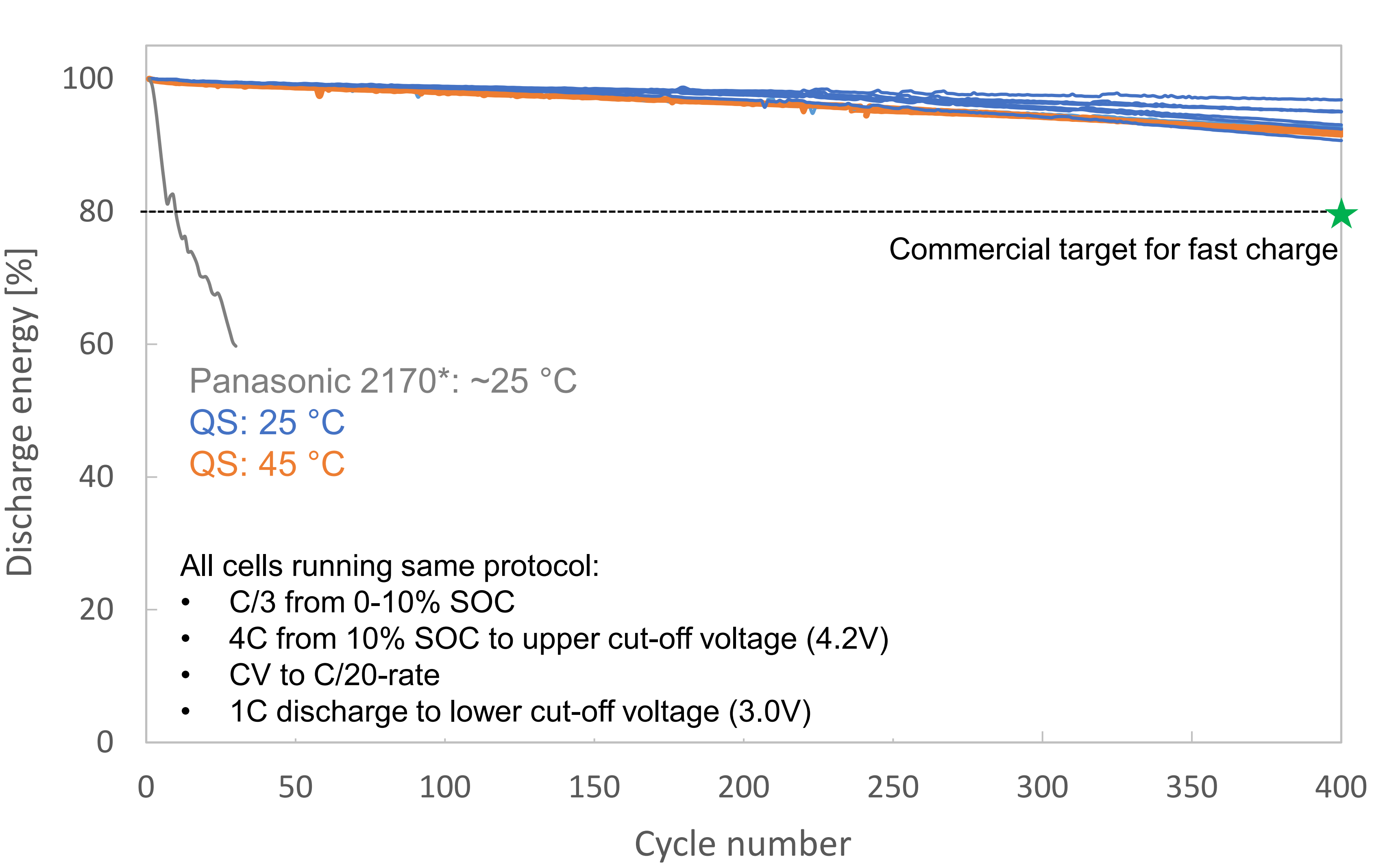
Repeated Fast Charging

>80% energy retained after >400 consecutive fast charging cycles



* From QS testing of cylindrical Panasonic 2170 cell; provided for illustrative purposes only and should not be relied upon as necessarily being indicative or representative of actual performance of all lithium-ion energy cells from such third-party's product line or of automotive lithium-ion energy cells in general.

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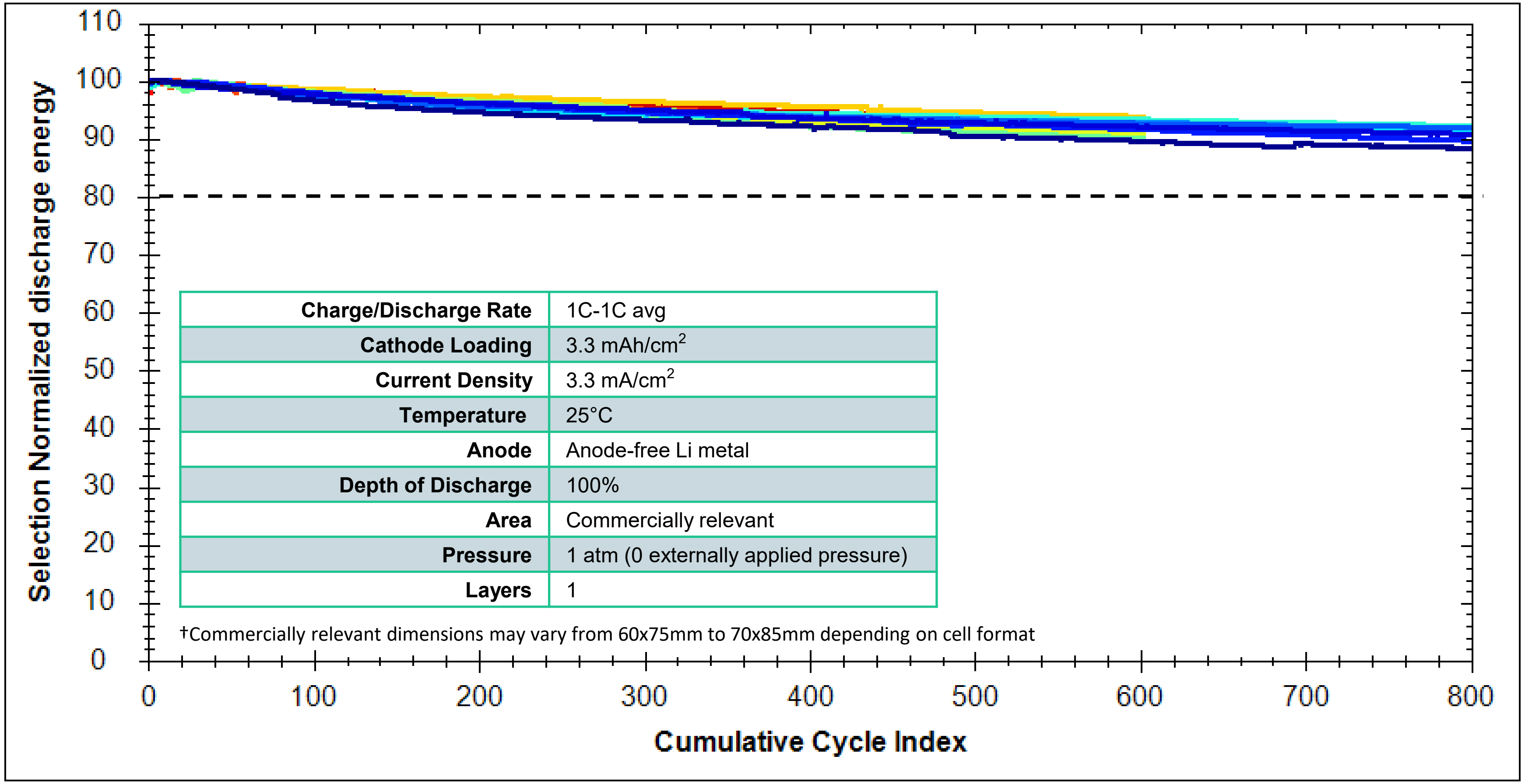
1 atm Cycling

QS single-layer solid-state cells have demonstrated >800 cycles with >80% retained energy without any externally applied pressure

Cycling Without Externally Applied Pressure



Charge/Discharge Rate	1C-1C avg
Cathode Loading	3.3 mAh/cm^2
Current Density	3.3 mA/cm^2
Temperature	25°C
Anode	Anode-free Li metal
Depth of Discharge	100%
Area	Commercially relevant
Pressure	1 atm (0 externally applied pressure)
Layers	1

†Commercially relevant dimensions may vary from 60x75mm to 70x85mm depending on cell format

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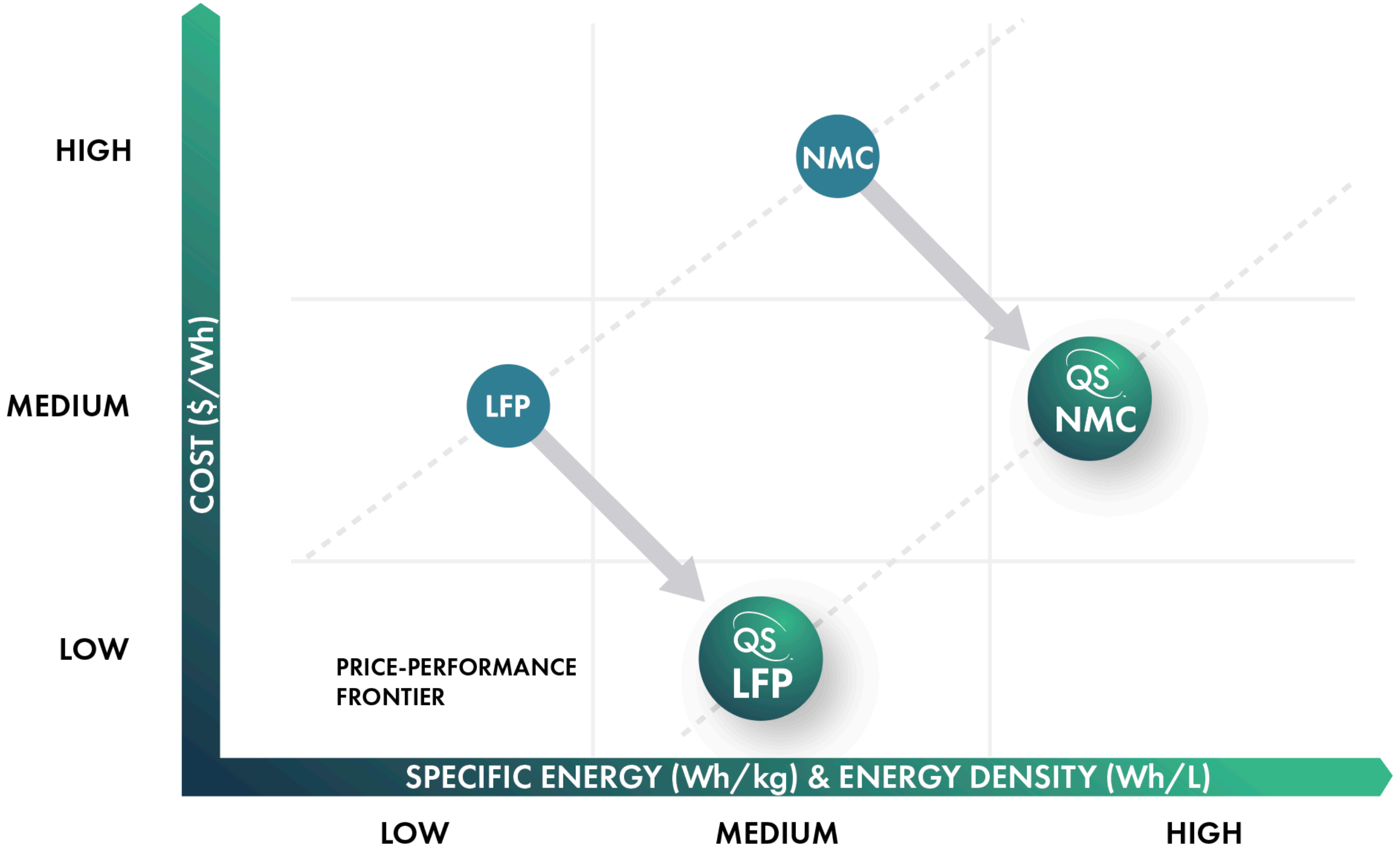
Lithium-metal batteries can shift EV price-performance frontier to lower cost and higher energy density

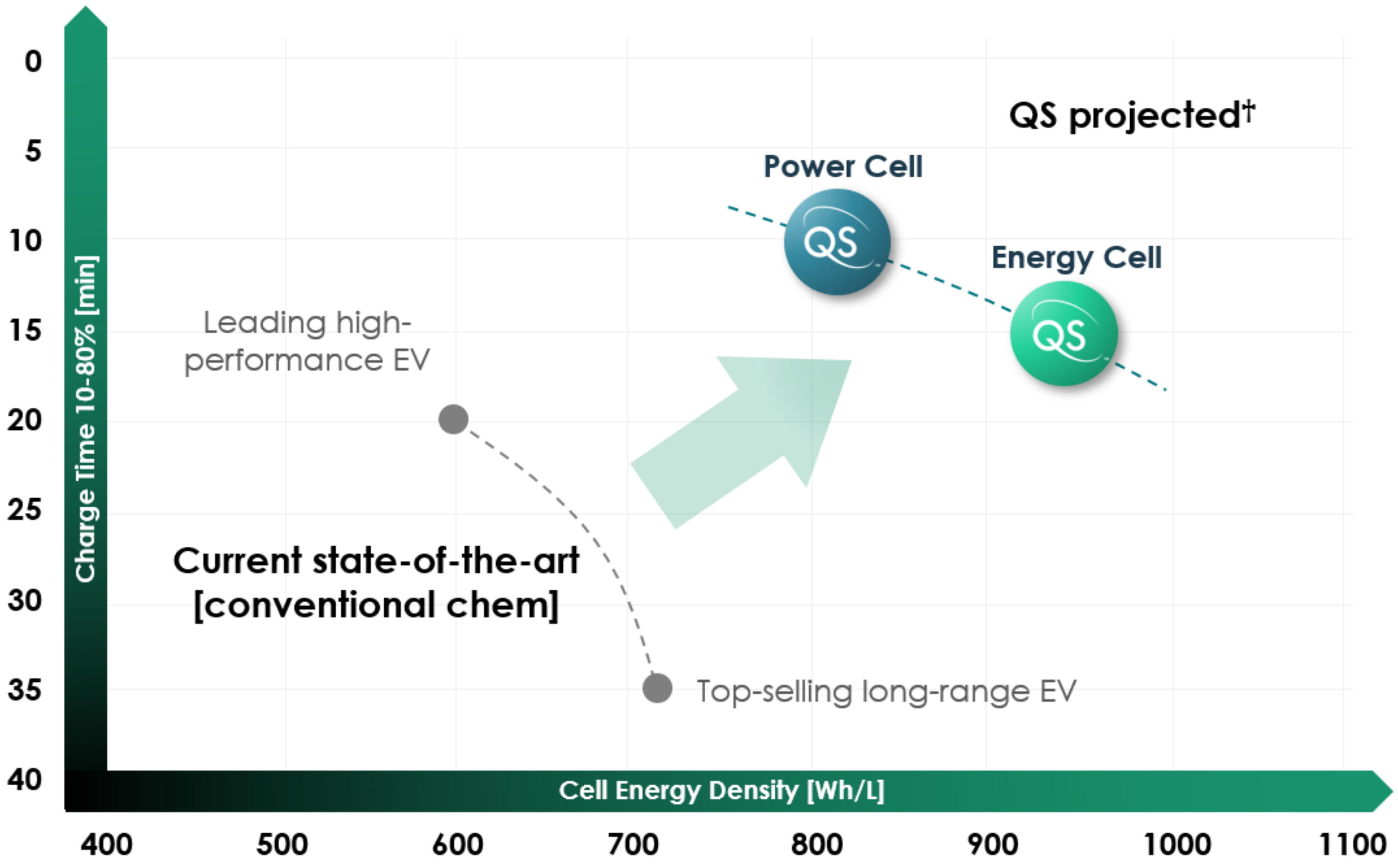
Shifting the Price-Performance Frontier



Based on QuantumScape internal analysis

Lithium-metal batteries can shift EV energy-power frontier to improve charging times and range

Shifting the Energy-Power Performance Frontier



Li-ion data: http://lacey.se/science/cell-plot/

†projections based on QS target energy and power density for commercial product, QS estimates and model assumptions

Customer Relationships

Deep Partnership with Volkswagen Group

1. VW and QS have partnered since 2012
2. Representation on the QS board of directors
3. Formed 50/50 JV to accelerate commercialization of QS' solid-state batteries, with capacity ramping to 21 GWh/yr
4. Close collaboration with VW Battery Center of Excellence
5. VW has tested multiple generations of QS cells and has publicly validated performance at automotive power levels
6. Non-Exclusive: VW has first priority to cells, but allows QS to explore commercial opportunities with other partners

Select Brands

PORSCHE Audi ŠKODA BENTLEY MAN

Customer Relationship Summary

- Contracted with 6 automotive OEMs* for cells out of QS-0
  - Volkswagen Group
  - 2nd Top-10 OEM*
  - 3rd Top-10 OEM* – contemplates potential 50 GWh JV facility
  - 2 established global luxury OEMs*
  - Pure-play EV company
- Signed agreement with Fluence, a leader in stationary energy storage systems, for cells out of QS-0

"[Solid-state] is the end game for lithium-ion battery cells."

– Frank Blome, Head of Battery Cell and System, Volkswagen Group Components (VW Battery Day, 2020)

* See www.ir.quantumscape.com/sec-filings for further details

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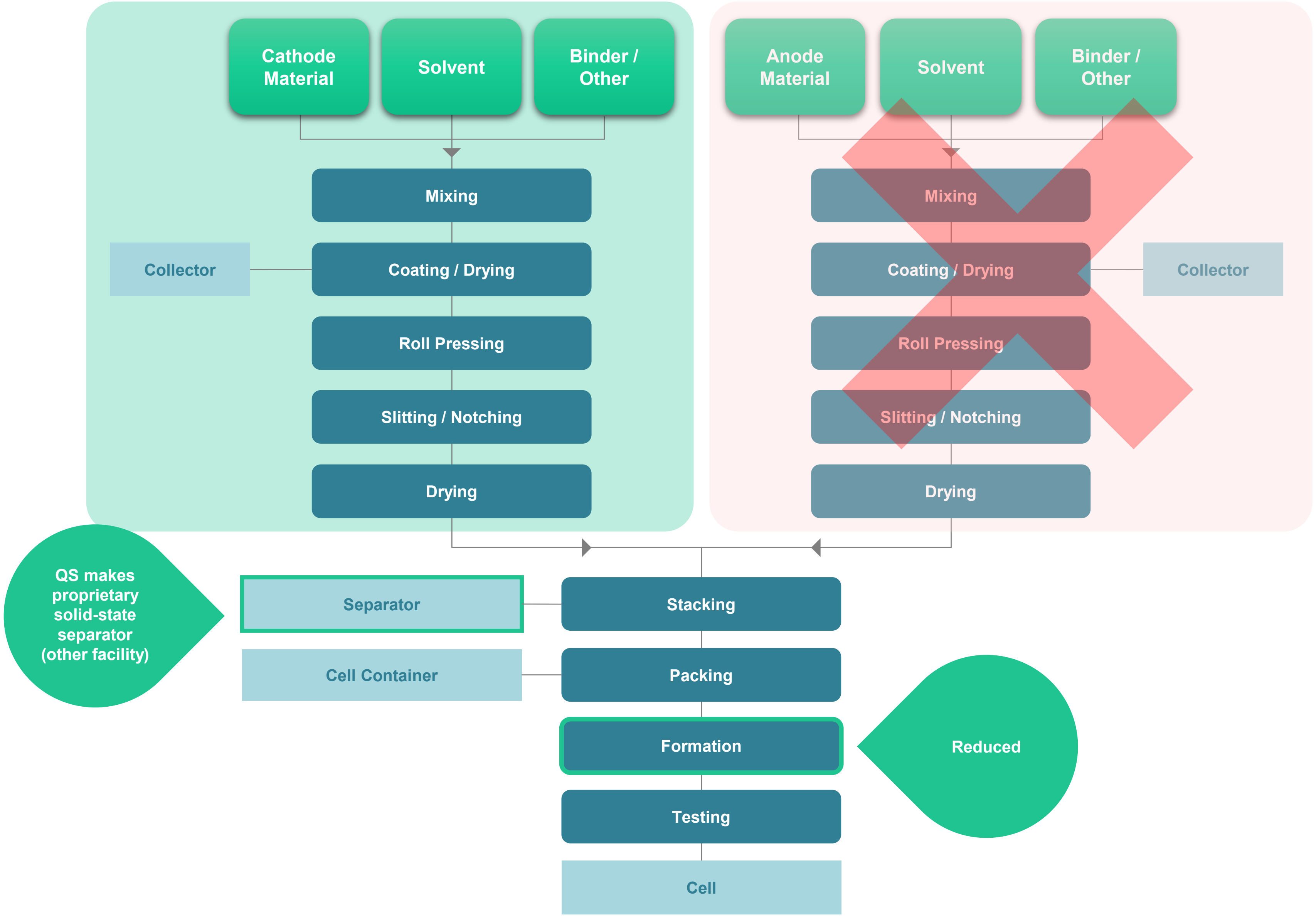
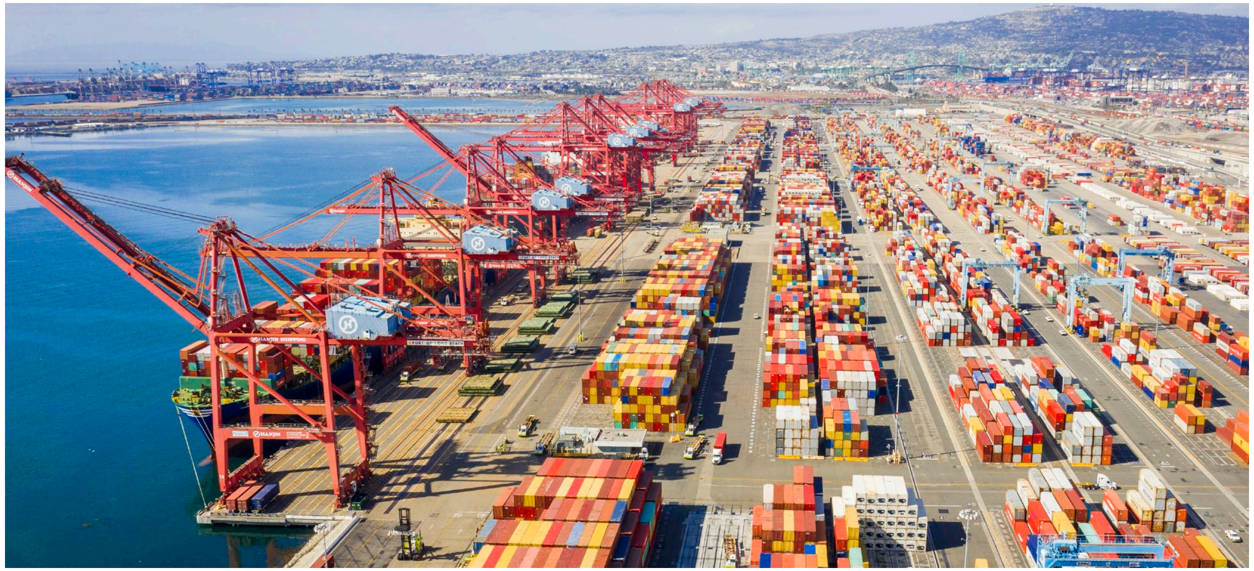
Our Technology Eliminates Anode Materials & Related Manufacturing Costs



Uses Abundant Materials and Established Supply Chains



Separator precursor materials are abundant and widely used in other industries

Supply chains served by well-established and diverse materials and chemicals firms

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