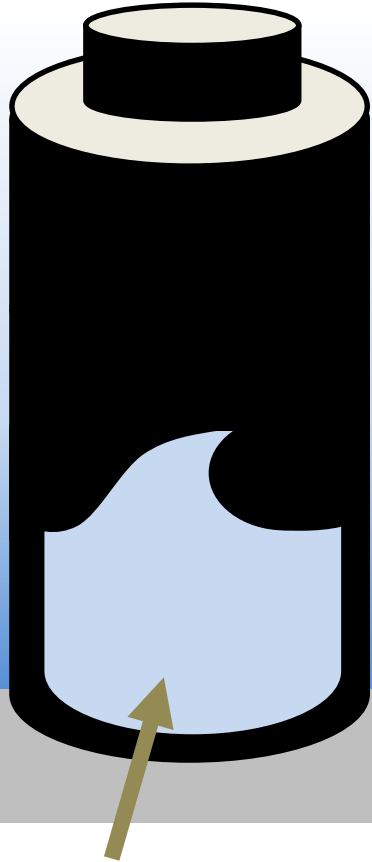
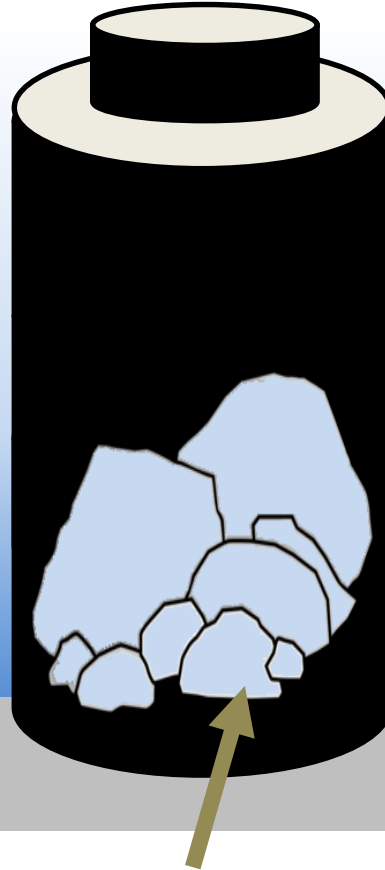




Liquefied Gas Electrolytes
for Lithium Metal Batteries



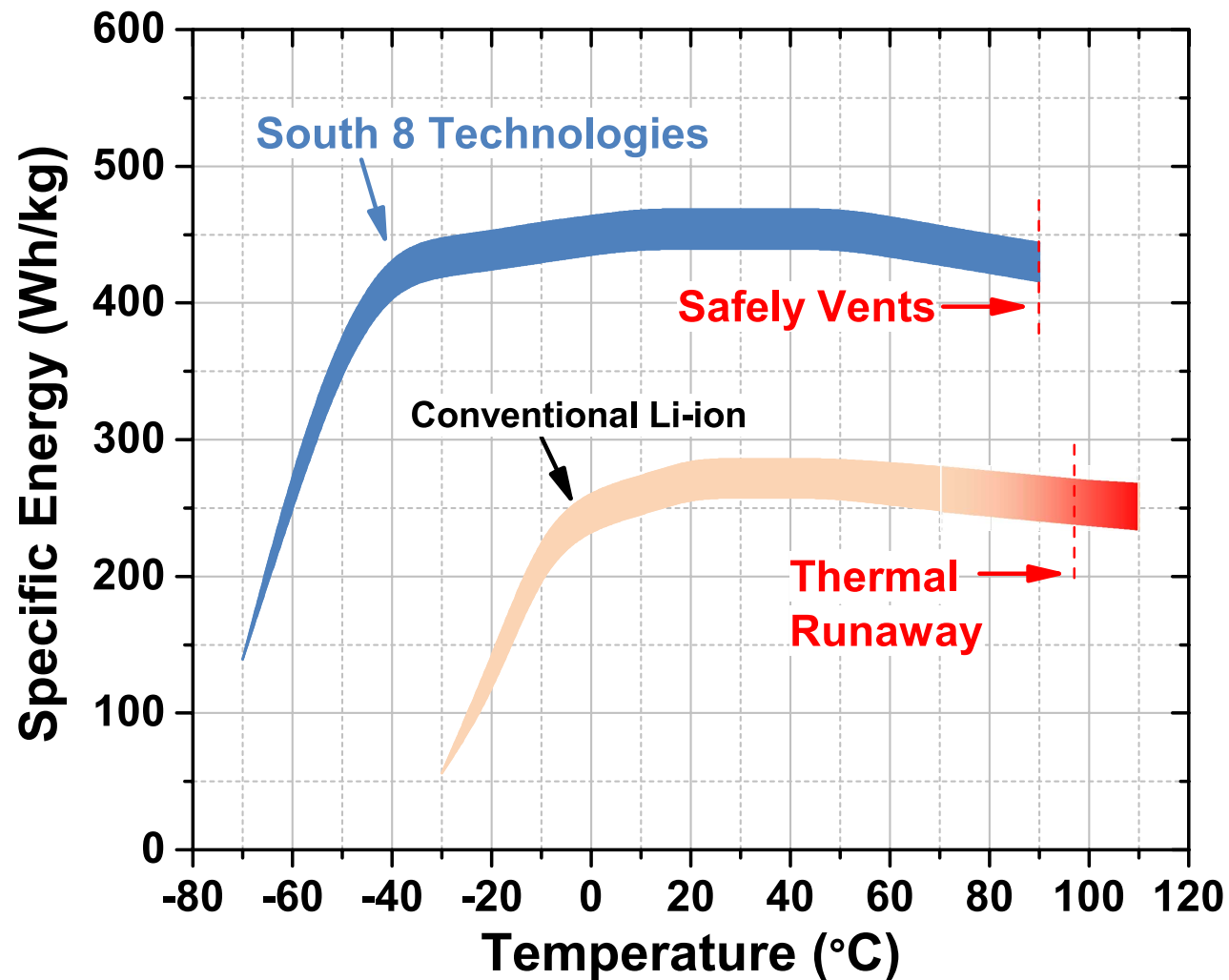
*Conventional Liquid
Battery Electrolyte*



*Solid State
Electrolyte*



*Liquefied Gas
Electrolyte (LiGas™)*



450 Wh/kg, 1000 Wh/L

2x capacity on single charge reducing mass and volume



Improved Safety

Reduced risk of revenue loss from recalls and personnel injury



-80 to +60 °C Operation

Reduced engineering costs of thermal management systems



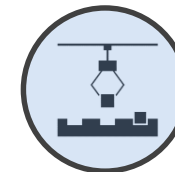
Cost Savings

30% lower \$/kWh reducing barrier to entry of key technologies



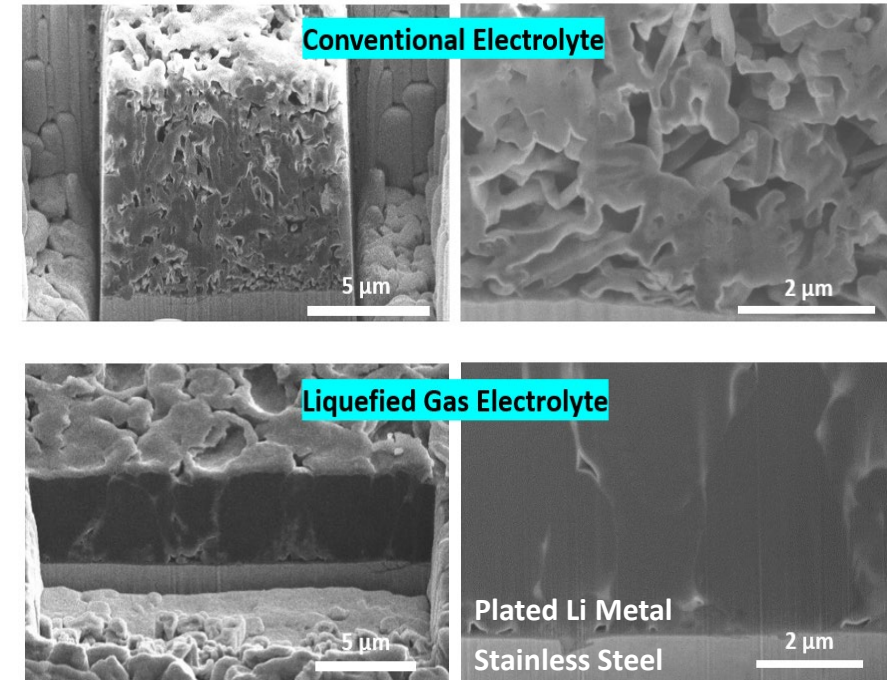
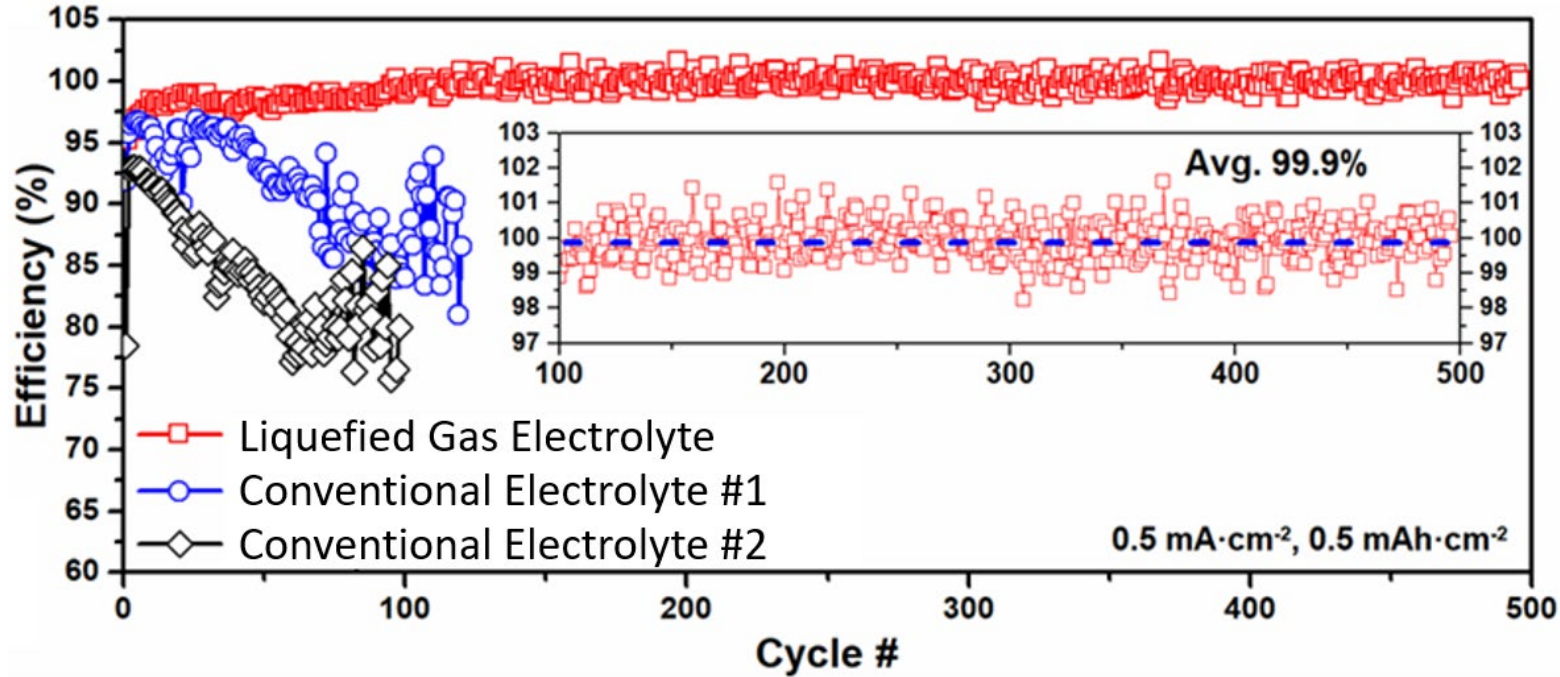
Material Compatibility

Existing supply chain provides all necessary components at scale



Manufacturing Compatibility

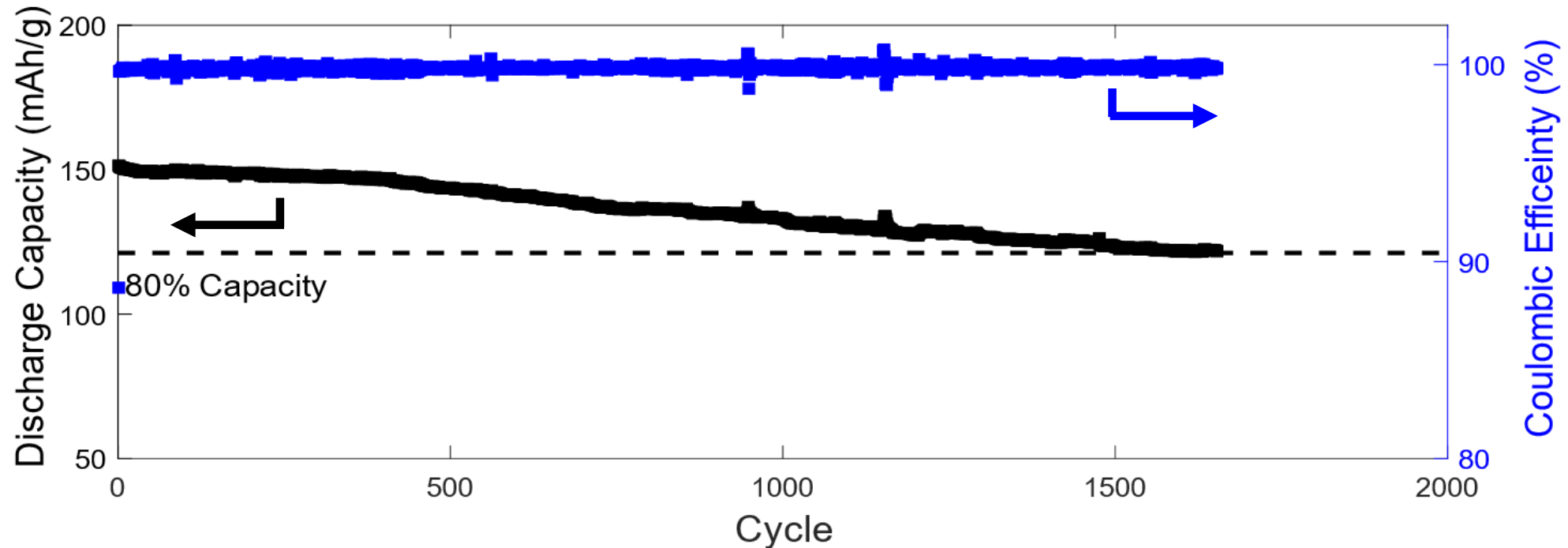
Minimal switching cost reduces barriers to adoption



Life Performance

Cathode: NMC622, 52 µm thick
Separator: 25 µm Celgard
Voltage: 2.5 - 4.2 V vs. Li
Rate: 1C-Rate (277 mAh/g assumed)
Temperature: +20 °C
Electrolyte: Gen-3
Form Factor: Coin-Cell

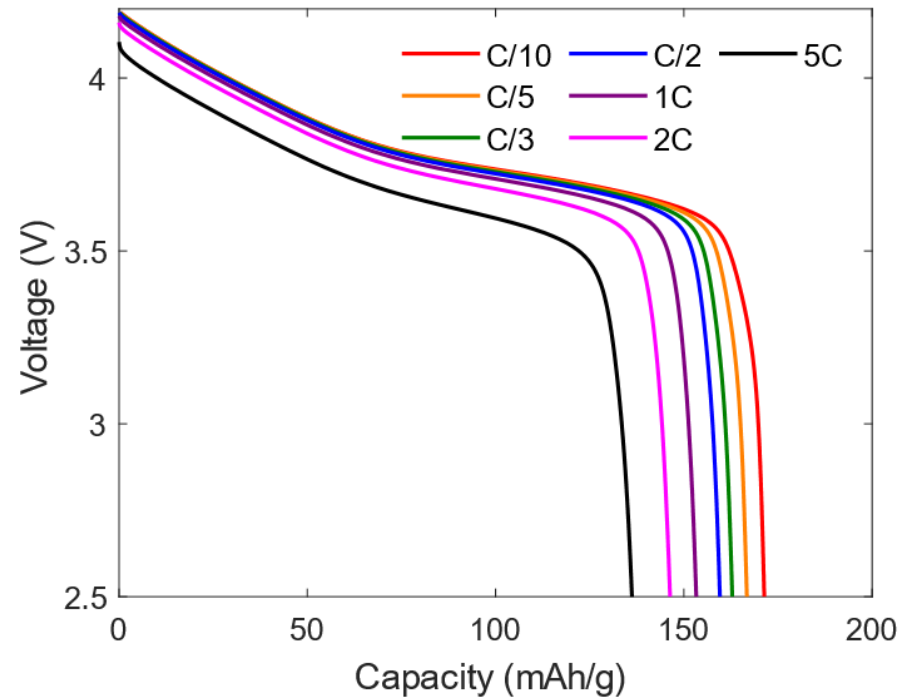
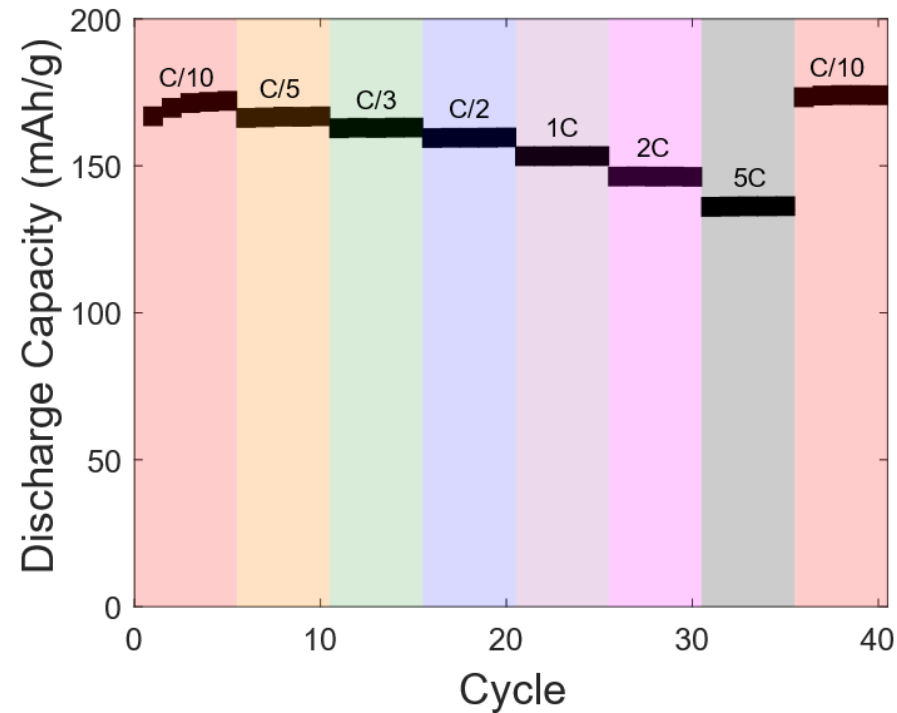
**Excellent life performance
>1600 cycles at 4.2 V w/ 100% DoD**



C-Rate Performance

Cathode:	NMC622, 52 μm thick
Separator:	25 μm Celgard
Voltage:	2.5 - 4.2 V vs. Li
Rate:	Various (277 mAh/g assumed)
Temperature:	+20 °C
Electrolyte:	Gen-3
Form Factor:	Coin-Cell

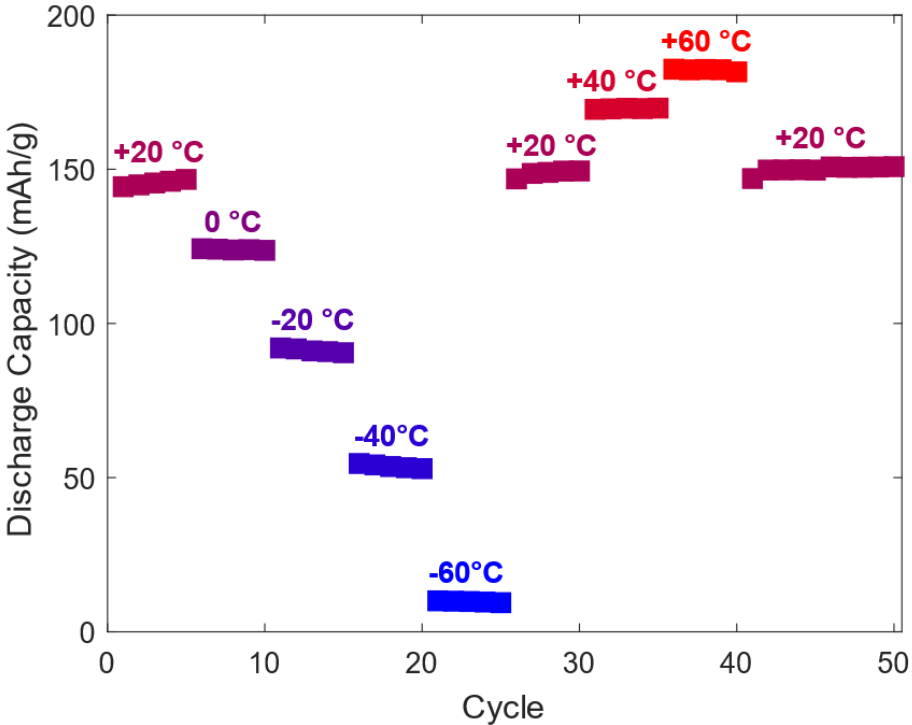
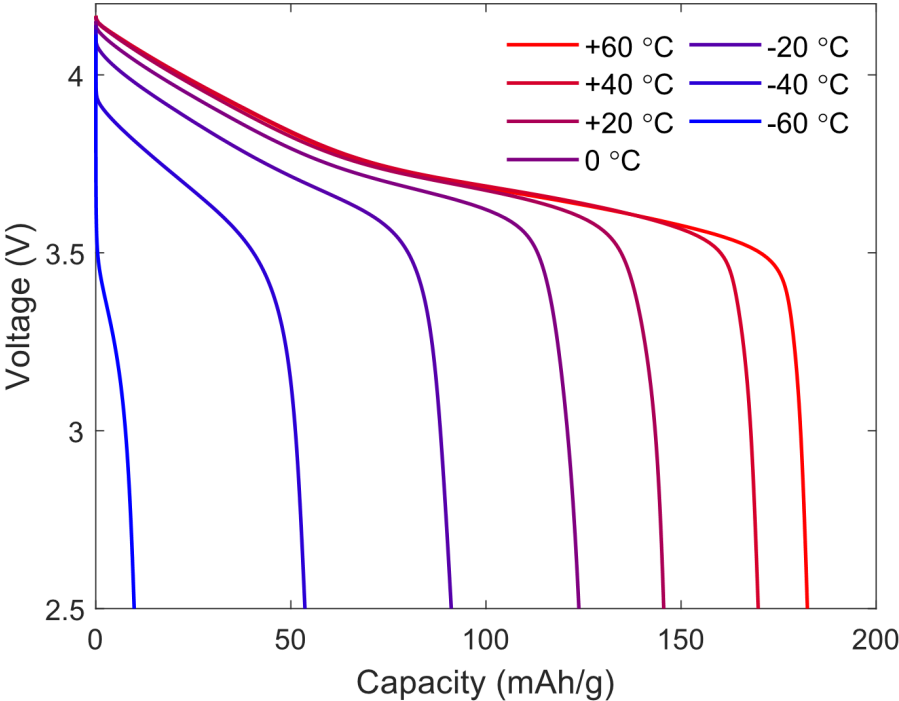
Excellent power performance
on standard cathode



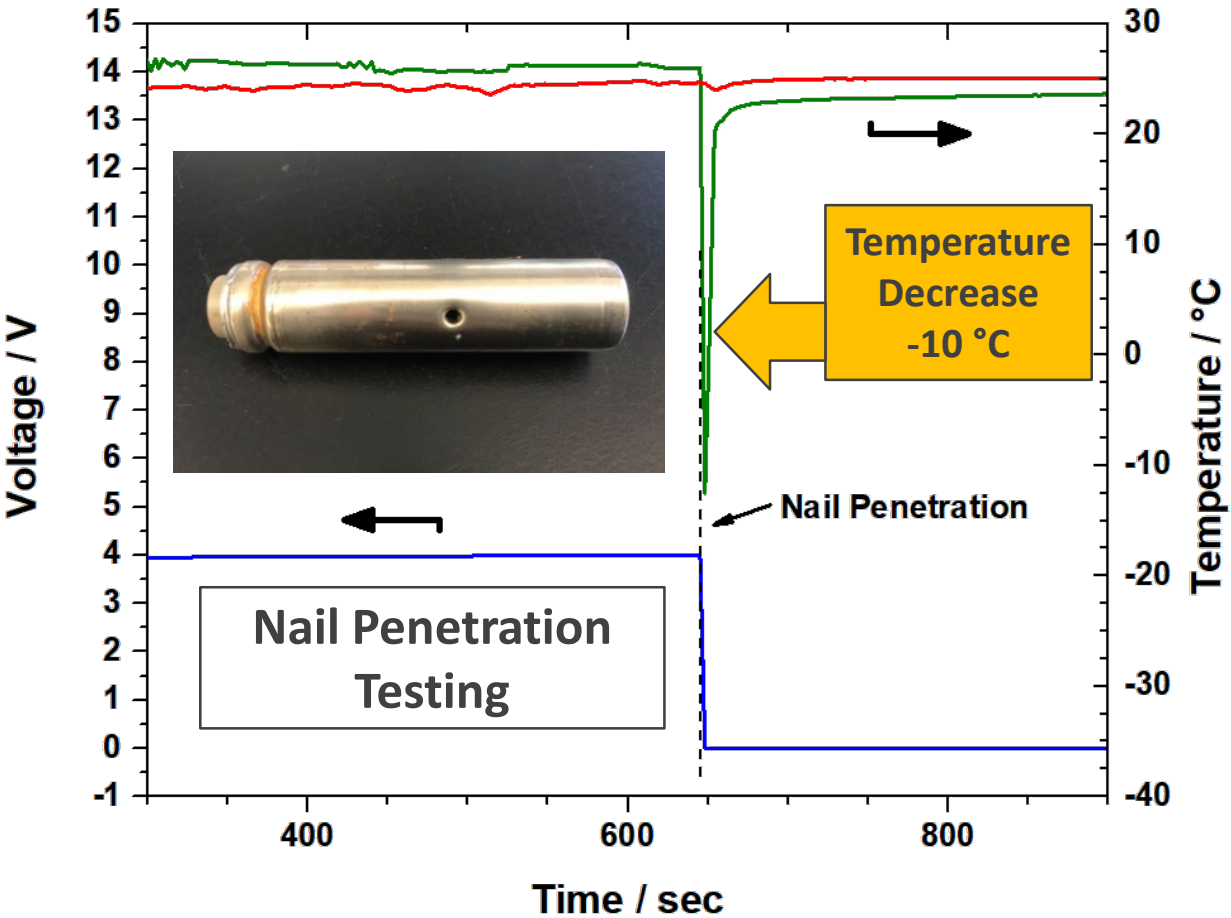
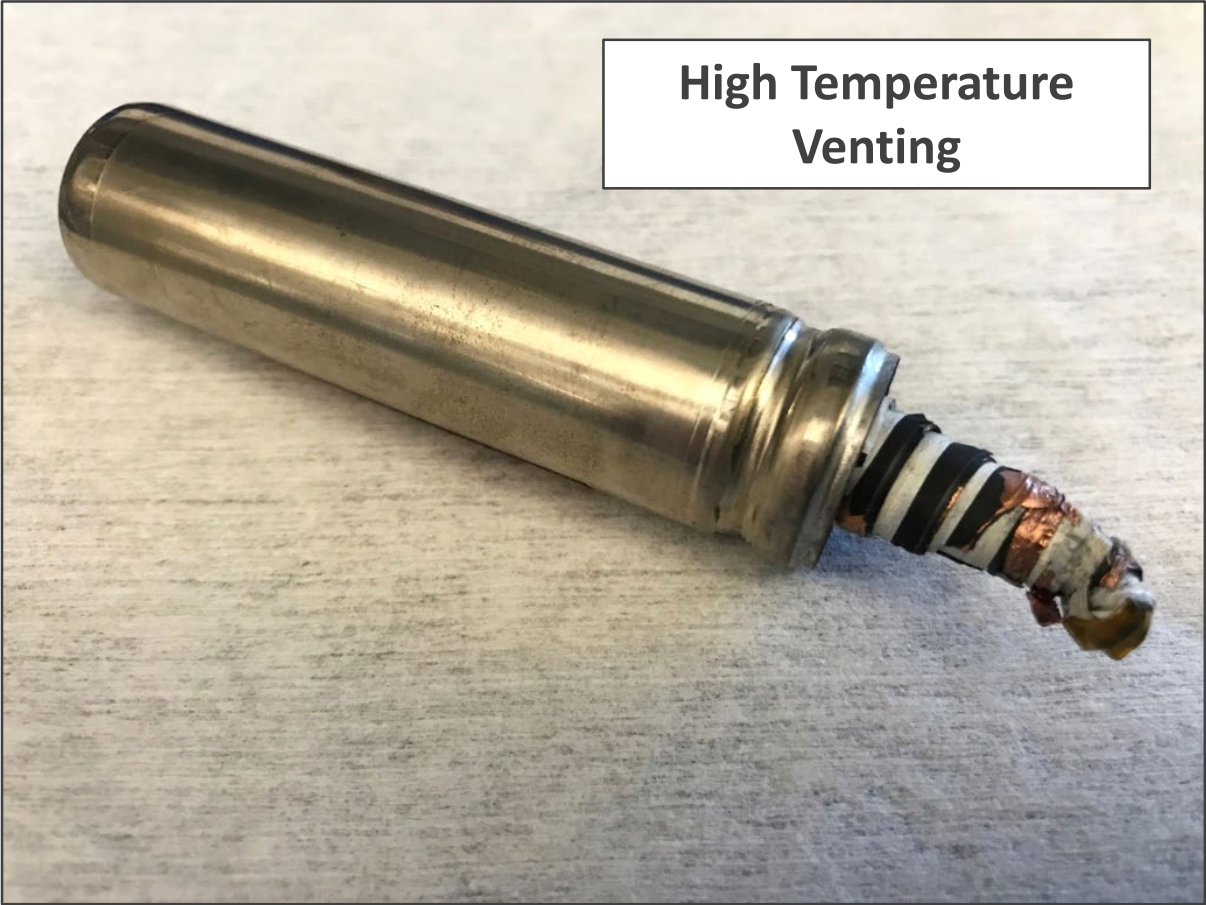
Temperature Performance

Cathode:	NMC622, 52 μm thick
Separator:	25 μm Celgard
Voltage:	2.5 - 4.2 V vs. Li
Rate:	C/2-Rate (277 mAh/g assumed)
Temperature:	Various
Electrolyte:	Gen-2
Form Factor:	Coin-Cell

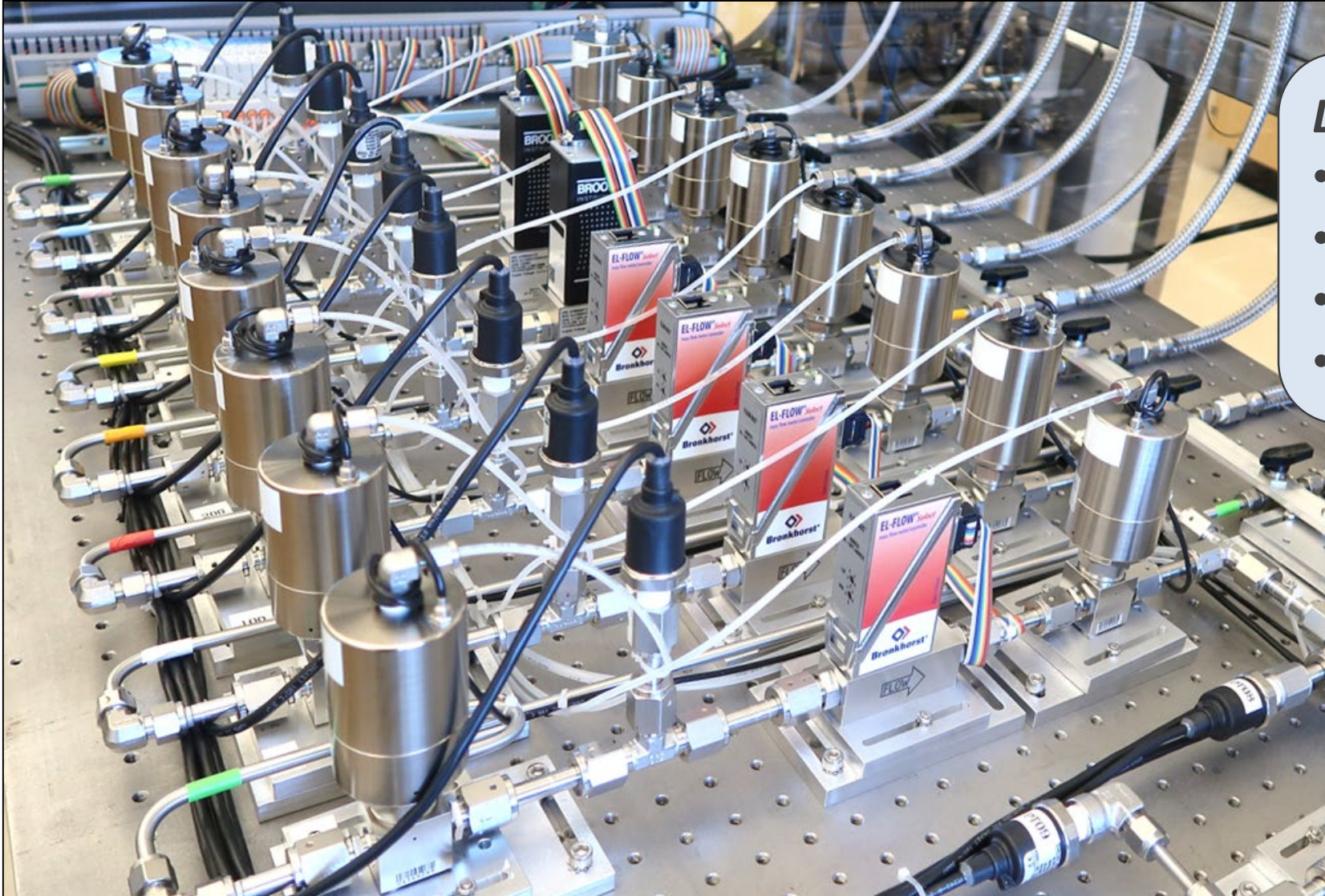
Broad temperature performance demonstrated



No fire. No spark. No thermal runaway.
Non-toxic chemistry



Manufacturability Validated



LiGas Injection Prototype Line

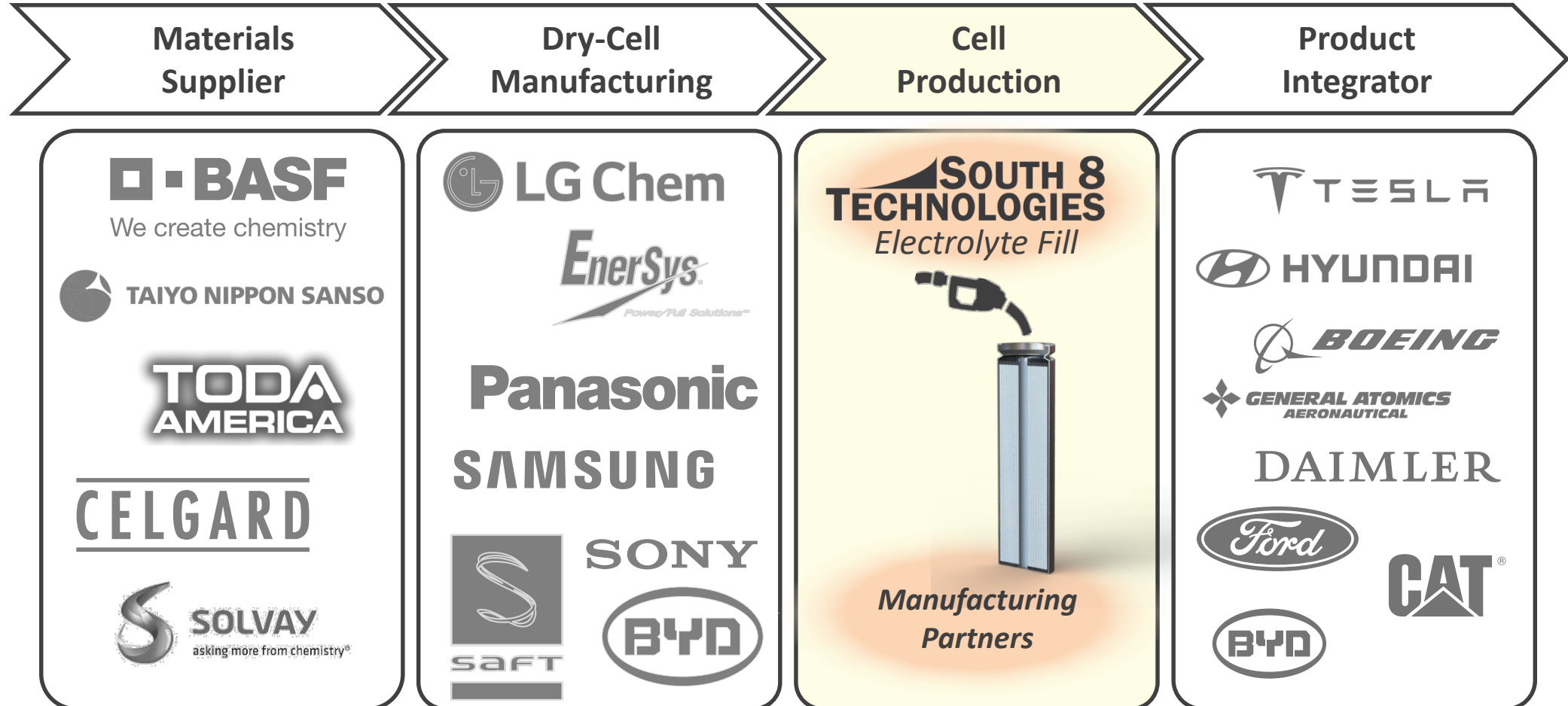
- 8 Different Gas Lines
- Rapid Injection Times
- Fully Automated Fills
- High Accuracy

Standard 18650 Form-Factor

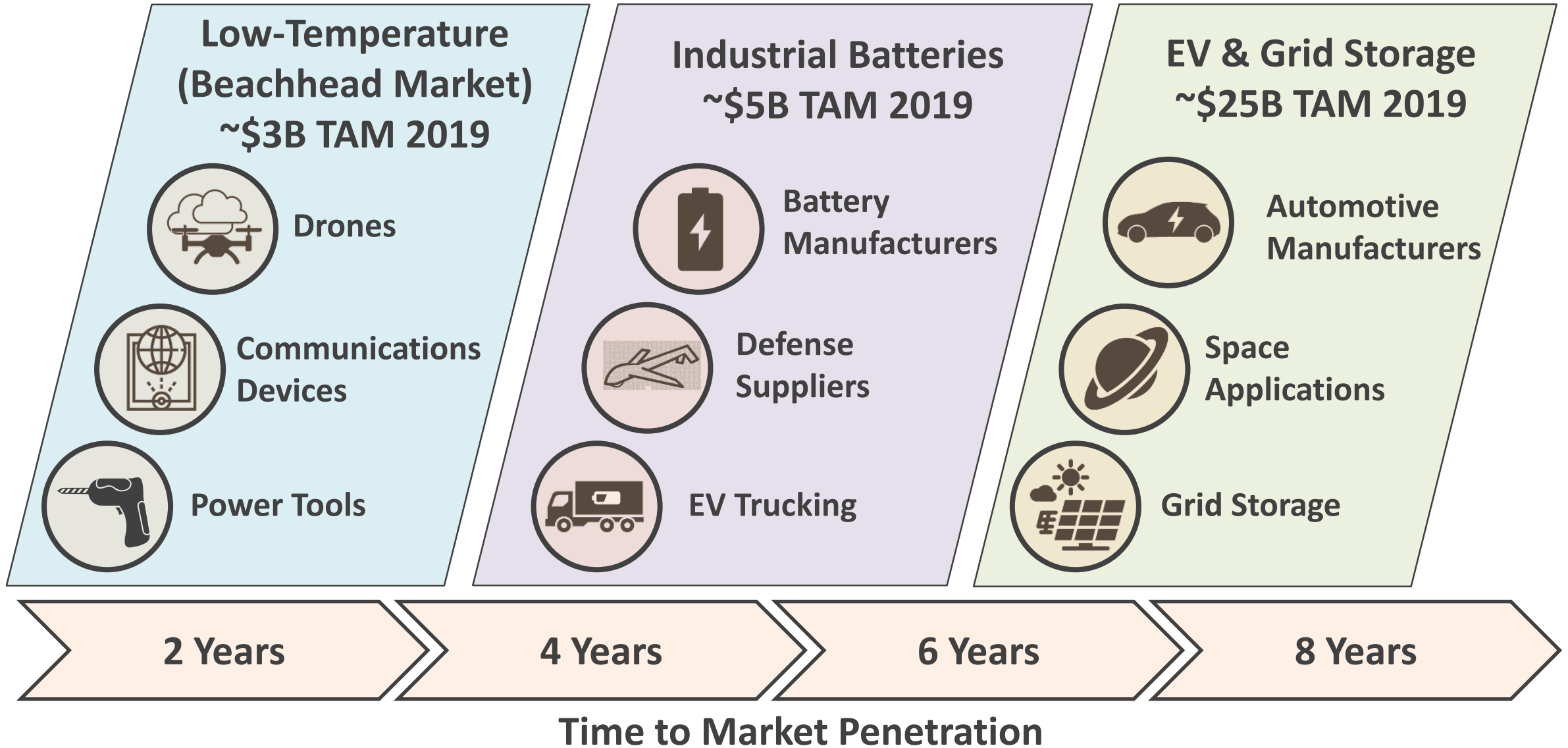


Role in Value Chain

South 8 is focused on electrolyte development and electrolyte filling
---Lean Business Operations, Not Capital Intensive---



Customer Timeline



Funds to Date

**\$3.3M government and
industry grants and
contracts**



SOUTH 8 TECHNOLOGIES

Next Generation Energy Storage Devices



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