Accelerating Energy Transition Through Battery Materials Discovery and Health Management

SES

March 2026

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Risk Factors" in our annual report on Form 10-K for the fiscal year ended December 31, 2025 filed with the Securities and Exchange Commission ("SEC") on March 4, 2026, and other documents filed from time to time with the SEC. There may be additional risks that SES presently knows and/or believes are immaterial that could also cause actual results to differ from those contained in the forward-looking statements. In addition, forward-looking statements reflect SES's expectations, plans or forecasts of future events and views only as of the date of this presentation. SES anticipates that subsequent events and developments will cause its assessments to change. However, while SES may elect to update these forward-looking statements at some point in the future, SES specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing SES's assessments as of any date subsequent to the date of this presentation.

ACCELERATING THE ENERGY TRANSITION THROUGH AI

UNIQUELY POSITIONED TO SOLVE THE ISSUES OF BATTERY DEVELOPMENT AND SAFETY REQUIREMENTS

- Standard timelines are a hindrance to adoption of new technology with ingrained R&D processes by the largest cell makers
- Energy transition needs are requiring more integration of AI software and hardware along with precise battery health monitoring

SES AI ACQUISITIONS AND TECHNOLOGY ARE ADDRESSING LARGE, RAPIDLY DEVELOPING MARKETS IN A CAPEX-LIGHT MANNER

- The ESS market is expected to be 10x the size of the EV market within the next 10 years[1]
- Global ESS battery shipments are expected to grow from 300 GWh in 2024 to 1,400 GWh in 2030[2]
- Global military drone battery market is expected to grow from $9.5bn in 2025 to $21.8bn in 2030[3]

SUCCESSFULLY COMMERCIALIZING OUR IP FOR EXPECTED REVENUE GROWTH AND VALUE CREATION IN 2026 AND BEYOND

- Core intellectual property of SES Molecular Universe provides competitive advantages for ESS, Cells and Electrolyte Materials businesses
- Molecular Universe has evolved into our own AI4Science company and a virtually untapped asset with robust comparable valuation markers in the private market

KEY PRODUCT, REVENUE, DEVELOPMENT AND PROFITABILITY MILESTONES INTACT

- Revenue of $21.0 million for full year 2025 and issued revenue guidance of $30 million to $35 million for full year 2026
- Strong liquidity position of $200 million as of December 31, 2025

Source:

1. *Meticulous Research. (2023, June). Battery Energy Storage System Market - Global Forecast to 2030*
2. *CATL's A1 Prospectus, GGII Report*
3. *Precedence Research*

“The Genesis Mission marks a defining moment for the next era of American science. We are linking the nation’s most advanced facilities, data, and computing into one closed-loop system to create a scientific instrument for the ages, an engine for discovery that doubles R&D productivity and solves challenges once thought impossible.”

Dr. Darío Gil, Under Secretary for Science and Genesis Mission Director (DOE)

SES AI History

2012

Est.
(MIT spinoff)

2017

Started **AI Initiative**

Battery Cell Data Collection Across Multiple Chemistries – Powering Predictive Models

2021

Built **NDAA-compliant Li-Metal** cell manufacturing line in Chungju, South Korea

Sign **world's first EV A-sample** (GM, Hyundai, Honda)

2022

NYSE Listing (NYSE: SES)

2023

Opened **Electrolyte Foundry** Boston, USA

2024

Entered **EV B-sample** (Hyundai and Honda)

Booked **1st Revenue**

2025

Launched **Molecular Universe**

Acquired **UZ for ESS**

Formed **JV with Hisun for Materials**

NDAA-compliant cells ready for production in Korea facility

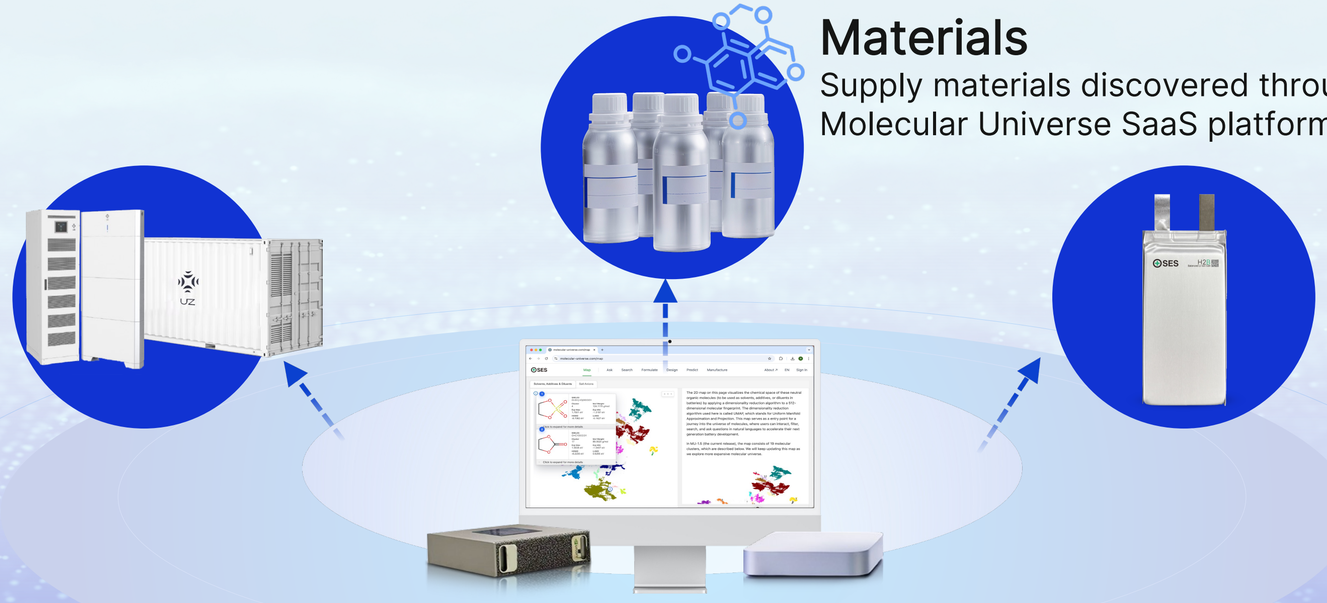
2026

Establish **3 Business Units: ESS, Drones, Materials** focusing on revenue generation

Molecular Universe focusing on value generation

@2026 Molecular Universe Pte. Ltd. (Confidential & Proprietary)

Multi-Pronged Business Opportunities Enabled by SES AI's Core Molecular Universe Platform



Materials
Supply materials discovered through Molecular Universe SaaS platform

ESS
Supply fully integrated hardware/software solutions with battery health and safety management software powered by Molecular Universe for data centers and C&I

Cells
Supply high energy and power density and NDAA-compliant Li-Metal and Li-ion cells designed through Molecular Universe for drones/UAM/robotics

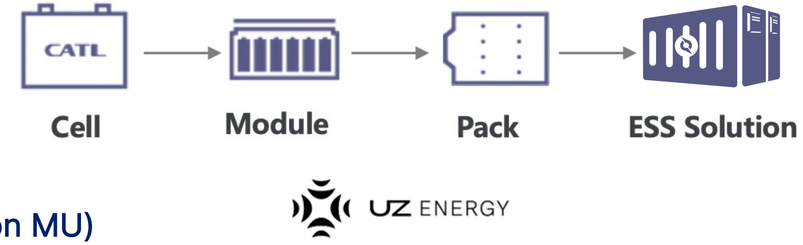
Molecular Universe
(AI4Science SaaS Platform)

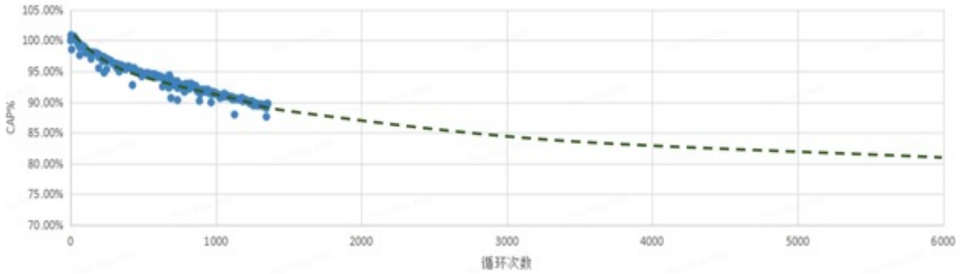
Revenue Generation	Focus on fast growing markets (ESS, Drones and Materials) and our unique value proposition for each driven by our compelling intellectual property and targeted business plans
Value Generation	Molecular Universe is an AI4Science platform comparable to private, pre- and early-revenue AI4Science peers such as Periodic Labs, SandboxAQ and DP Tech, among others, who raised capital in 2025 at valuations ranging from ~$1bn to ~$5bn

ESS (Acquisition of UZ)

Supply fully integrated hardware/software solution for data centers and C&I

SES AI Material discovery
(ESS is #1 most searched query on MU)





SES AI Battery Health Monitoring
(Ensure safety and lifetime)

5-10kWh

10-100kWh

100-500kWh

5MWh

- Molecular Universe battery health management software can predict safety issues and reduce maintenance/operation cost
- UZ, with its >500MWh of manufacturing capacity and customers in over 60 countries, provides valuable real-world data to further train Molecular Universe

Materials (JV with Hisun)

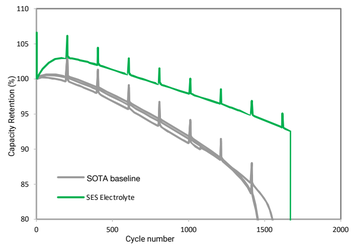
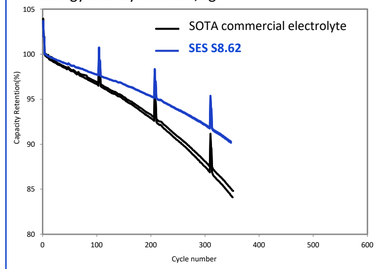
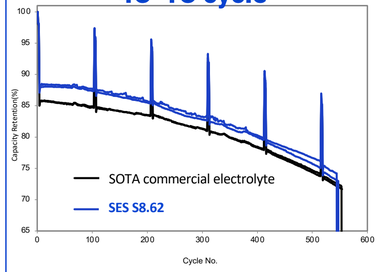
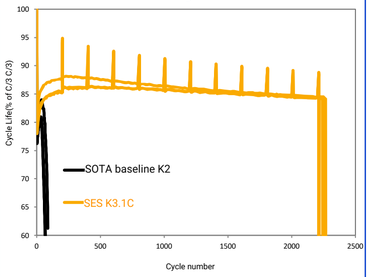
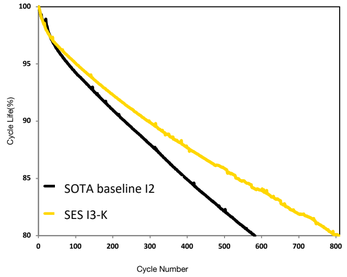
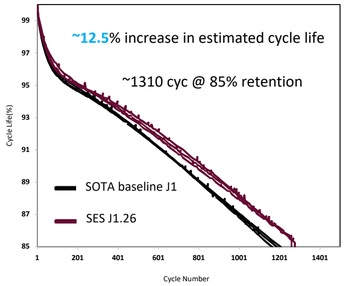
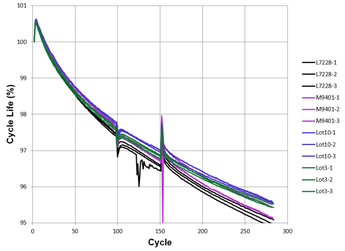
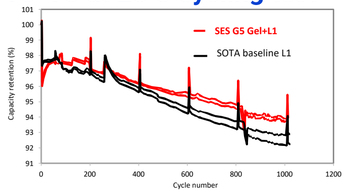
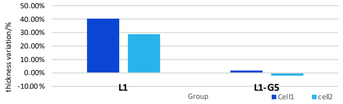
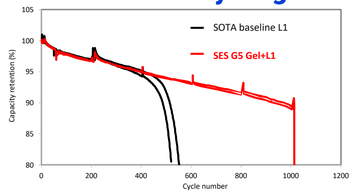
Supply materials discovered through Molecular Universe on a commercial scale

Currently **6 breakthroughs** discovered through Molecular Universe being tested at **40+ customers**

A. **SES H2.32** – better cycle life and storage for **EV**
B. **SES S8.62** – better cycle life and power density for **Drones**
C. **SES K3.1** – better low-temp cycle life and power density for **Heavy Duty Trucking**
D. **SES I3/J1** – better cycle life and longer life **for Consumer Electronics**
E. **SES K3/4/11** – better cycle life and low-temp performance for **ESS and EV**
F. **SES G5-Gel** – better cycle life and storage for **Consumer Electronics**

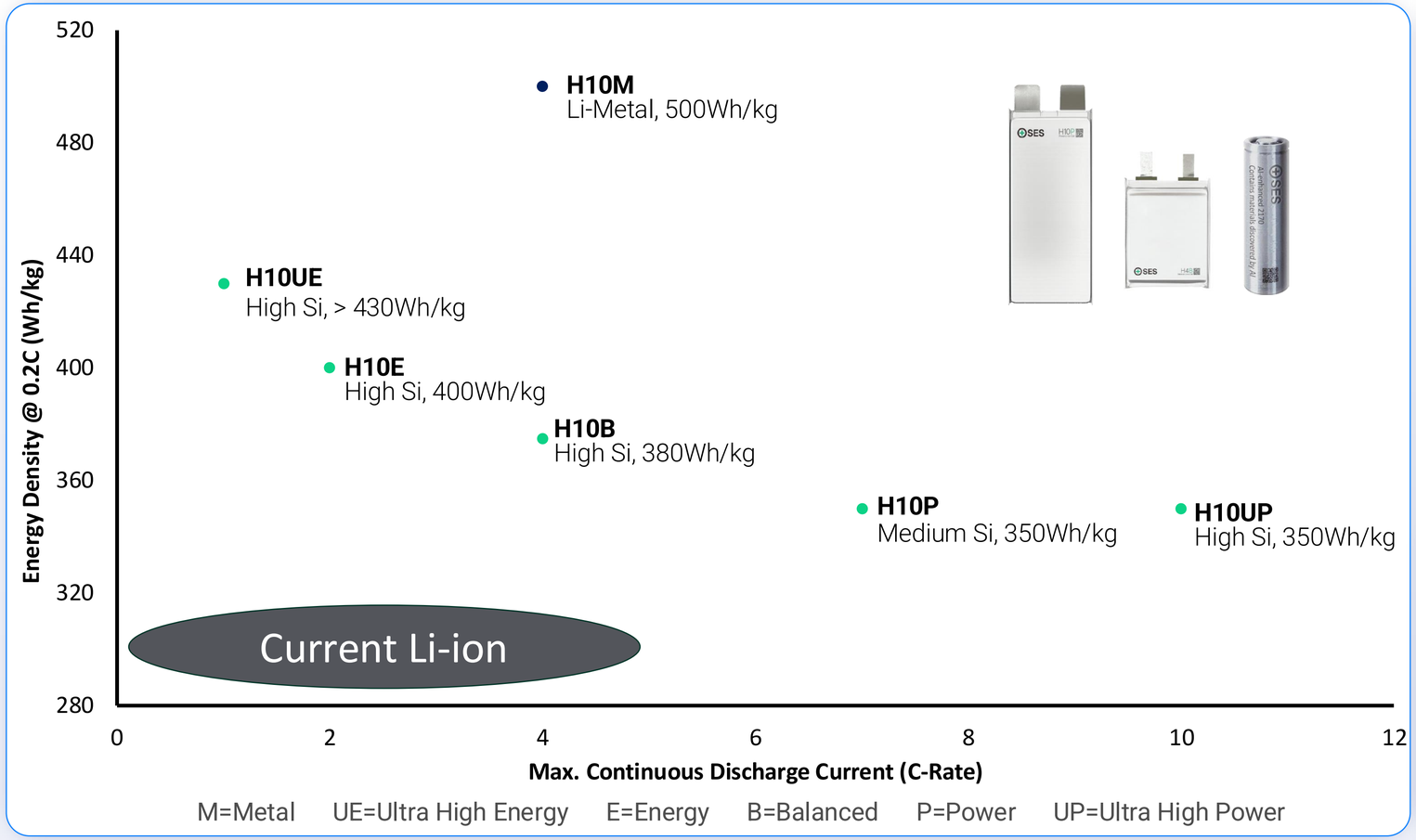
Materials (materials breakthroughs discovered through Molecular Universe SaaS)

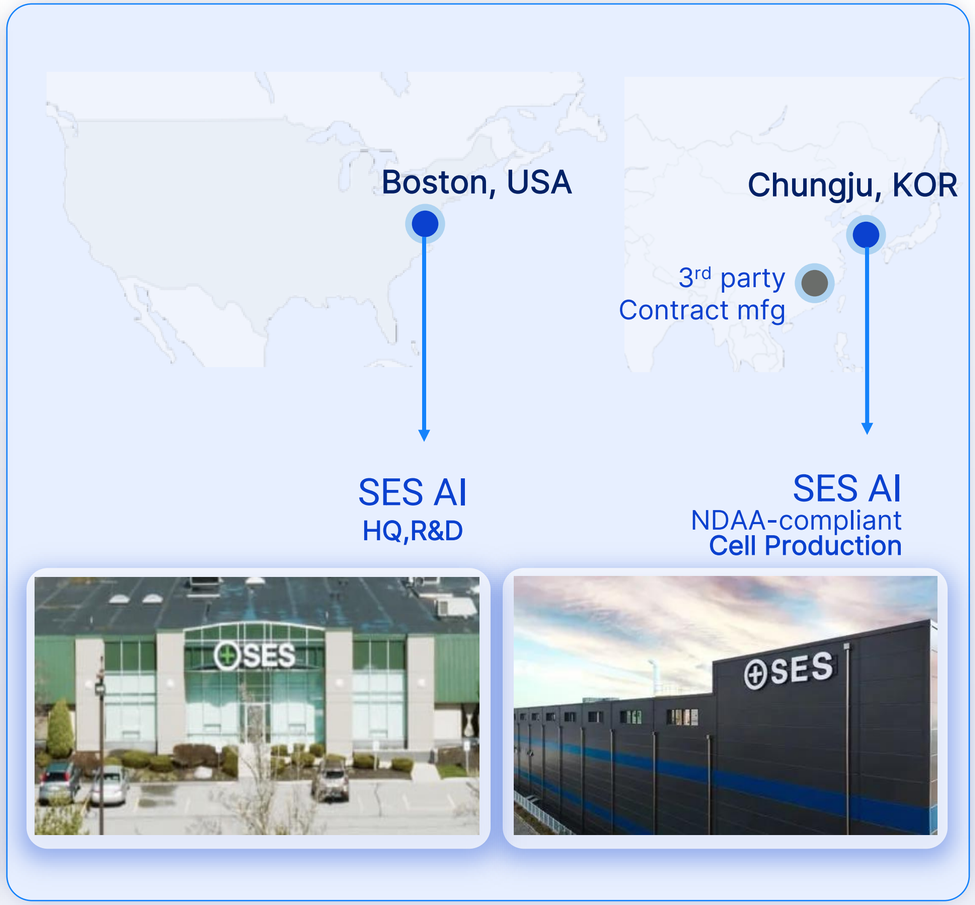
Molecular Universe has already discovered 6 novel electrolyte materials across multiple applications

Electrolyte Product Name	A. SES-H2.32	B. SES-S8.62	C. SES-K3.1	D. SES-I3/J1	E. SES-K3/4/11	F. SES-G5-Gel
Cell Chemistry	Low Si anode –NCM811	High Si /Li-Metal – NCM811	Graphite anode- LFP	Si/Gr anode-LCO or NCM	Graphite anode - LFP	Graphite anode - LCO
Applications	EV	Drones/UAM	Heavy-duty Trucking	Consumer Electronics, EV	ESS or EV	Consumer Electronics
Key Improvements	Better RT cycle life and 60°C storage	Better RT cycle life and C-rate	Better LT cycle life and C-rate	Better RT and 45°C cycle life	Better RT cycle life, 60°C storage and -20°C C-rate	Better RT cycle life and 45°C storage
	1C-1C  SES electrolyte outperformed commercial electrolyte reported in SOTA	**1C-1C cycle** Energy density: 360 Wh/kg  **4C-1C cycle**  Develop electrolytes to enable >20% cycle life improvement over commercial benchmark under 1C/1C and 4C/1C for 100%Si battery chemistry	**4C-4C cycle**  ● K3.1-C electrolyte demonstrates further increased **cycle life compared** to SOTA baseline electrolyte at 4C-4C cycling condition ● Cells are currently still cycling	**4.4V-3V (1C-1C) at 45°C**  **4.45V-3V (4C-1C) at 25°C**  SES I3-K and J1.26 electrolytes demonstrate better stability than SOTA baseline electrolytes under high voltage charge (4.4V/4.45V) and fast charge (4C)	**45°C 1C-1C**  SES Lot 3/Lot 10 are the most promising, compared to SOTA baseline	**1C-1C at 25℃ cycling test**  **thickness variation after 7-Day Storage at 60°C**  **1C-1C at 45℃ cycling test**  **Capacity retention** In terms of capacity retention, gel electrolytes demonstrate better stability than liquid electrolytes at 1C-1C at 25℃ and 45℃ as well as high temperature storage, SES electrolyte outperformed SOTA baseline	

Drones

Supplying High Energy and Power Density and NDAA-compliant Li-Metal and Li-ion Cells





- High Energy Density: up to 500 Wh/kg
- High Power Density: up to 10C continuous
- With materials discovered through Molecular Universe

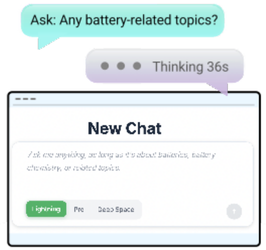
- NDAA-compliant own manufacturing capacity: 1m cells/year (can scale up)
- 3rd party contract manufacturing capacity: 10m cells/year (can scale up)

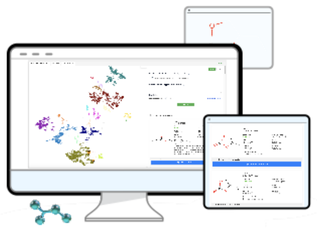
An AI4Science Platform Built by Battery Professionals, for Battery Professionals

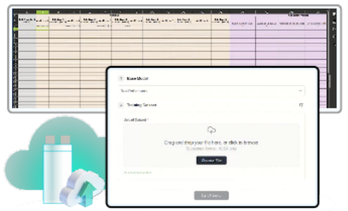
This is the reality of today's R&D

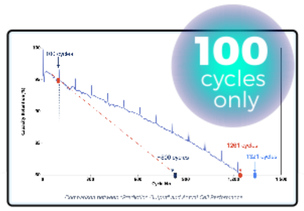
$200B+	8–10 year	80%
spent	timelines	failure

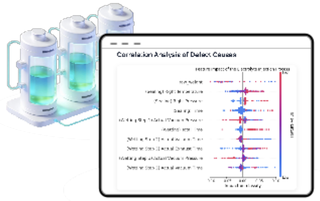
Repeat the old ways—or accelerate discovery with Molecular Universe, an AI4Science SaaS platform covering the complete end-to-end workflow. It has already helped users discover several breakthroughs including battery materials for consumer electronics, drones, energy storage and EV applications.











Ask > Search > Formulate > Design > Predict > Manufacture

Agentic LLM

Senior scientist level agentic LLM trained on public and private battery domain knowledge

Battery Database

Largest database of battery-relevant properties for battery-relevant molecules

Foundry Integration

Dry and wet automated lab integration including high throughput molecule synthesis, formulation screening and cell performance validation

Simulation Engine

Proprietary high speed and high precision property simulation models including DFT and MD

Cell Performance and Quality Prediction

Machine learning models pre-trained on SES AI internal data and to be further trained using customer data.

Design: impact of material changes on cell performance.
Predict: end of life prediction based on early performance data.
Manufacture: cell quality improvement based on MES data

Why Molecular Universe is the best battery domain AI4Science platform

1. Incubated at a battery company, SES AI, since 2017
2. Offers latest high precision and high-speed simulation models, high quality experimental data, and world class domain expertise
3. Available both in cloud (for your convenience) and on-premises (for your security)

PRIORITIES FOR 2026 AND BEYOND

LEVERAGE NEW BUSINESS UNIT LEADERSHIP TO EXECUTE ON ESS AND DRONE CELL OPPORTUNITIES

EXECUTE ON CONVERSION OF NDAA-COMPLIANT LINE IN KOREA FROM EV CELLS TO DRONE CELLS

CONTINUE GROWTH OF UZ ENERGY'S EXISTING HARDWARE BUSINESS IN AUSTRALIA, MIDDLE EAST, EUROPE AND U.S. AND INTEGRATE SES AI SOFTWARE WITH NEW EDGE BOX

DELIVER ON EXISTING NOVEL ELECTROLYTES DISCOVERED BY MOLECULAR UNIVERSE IN MATERIALS BUSINESS WITH HISUN JV AND CONTINUE TO EXPAND PIPELINE

LEVERAGE MOLECULAR UNIVERSE MATERIAL DISCOVERY TO ACCELERATE NEW PRODUCT DEVELOPMENT AND BUILD LEAD OVER COMPETITION

FOCUS ON CAPEX-LIGHT BUSINESS MODEL IN ESS, CELLS AND MATERIALS WITH R&D CONCENTRATED IN MOLECULAR UNIVERSE

All-in on AI™
SES