

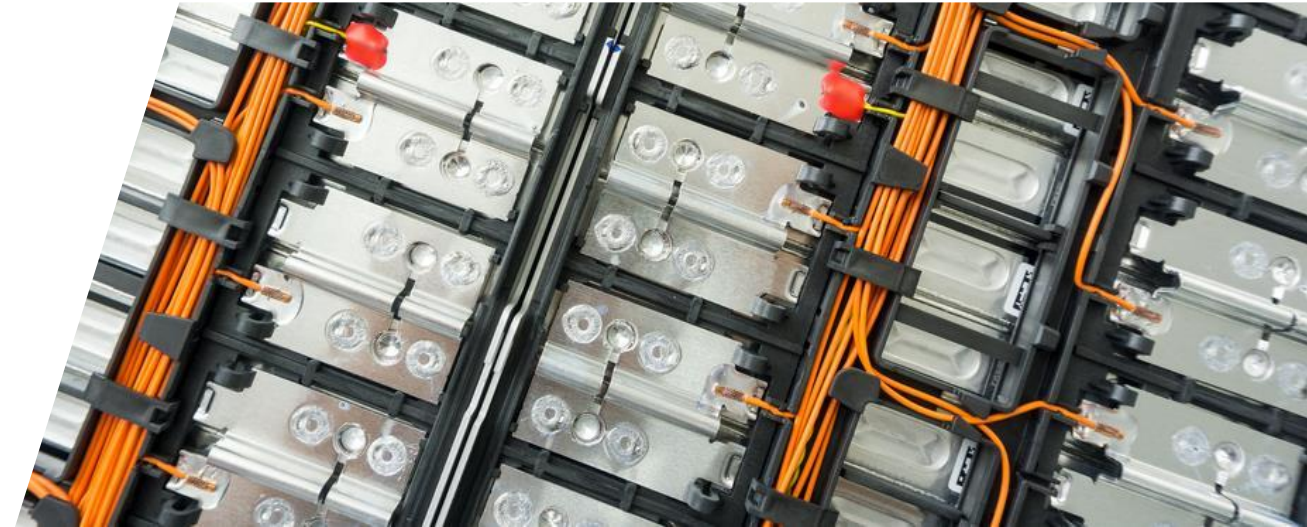
# Ace Green Recycling, Inc.

*An IP-driven battery recycling technology company*

May 2025



**ACE Green Recycling**



# Investment Highlights: Leading the green battery recycling revolution



## **Proven Commercial Technology**

- Commercial recycler of lead and lithium batteries enabling a domestic supply chain and the retention of critical metals and materials
- 4.7 million lbs processed with superior recovery rates (up to 99% lead recovery rate)
- IP portfolio with 108 patent filings



## ***Compelling Environmental & Economic Advantages***

- Compliance with current EPA requirements; environmental credentials support stricter future regulatory requirements
- Zero Scope 1 carbon emissions, zero toxic waste for both lead and lithium recycling



## ***Ace's Texas Flagship Facility***

- Texas facility positioned to be first large-scale GREENLEAD® (Phase I) and LFP recycling (Phase II) facility in the U.S.
- Feedstock agreements covering over 2x Phase I capacity with long-term offtake and tolling agreements in place
- Strategically located near key customers and direct rail access/logistics infrastructure



## ***Supportive Political & Economic Tailwinds***

- National security, economic, and sustainable initiatives have globalized the refinement of feedstock and battery production away from traditional sources in Asia
- Aligns with U.S. focus on prioritizing domestic supply chain and manufacturing



## ***Clear Path to Scalable Revenue***

- \$24.1 million in FY 2024 with three established revenue streams
- Modular design enables rapid, capital-efficient scaling with up to 40% lower CapEx vs. traditional methods
- Lower minimum viable plant size, 5,000 MT vs 20,000+ MT
- Licensing & JV partnerships spurred recurring revenue streams through proprietary chemicals



## ***Experienced Management & Strong Partnerships***

- Leadership team with 100+ years combined industry experience
- Strong capabilities with 44+ technologists & industry professionals
- Global network of strategic partners including Glencore, Olympic Metals, ACME, STC & others





**Supporting environmentally and economically sustainable**

**domestic supply chains for recycled battery materials**



# Ace Green Recycling – Recycling lead and lithium (LFP) batteries

Company	<ul style="list-style-type: none"> <li>Green battery recycler recapturing critical materials from: <ul style="list-style-type: none"> <li>Lead batteries</li> <li>Lithium batteries with focus on Lithium Ferro Phosphate (LFP)</li> </ul> </li> <li>Utilize a modular, fully-electrified technology with zero Scope 1 carbon emissions, zero toxic water and solid waste</li> </ul>
Business Model	<ul style="list-style-type: none"> <li>Operate solely-owned recycling facilities (U.S. and large markets)</li> <li>Joint ventures (JV) and licensing (small to mid-size markets)</li> <li>Supply chain and service contracts: <ul style="list-style-type: none"> <li>Proprietary chemical mix through long-term contracts</li> <li>Trade, source, and supply battery feedstock, black mass, and battery materials</li> </ul> </li> </ul>
Our Facilities	<ul style="list-style-type: none"> <li>Texas lead and LFP facility (solely owned, in permitting)</li> <li>India LFP facility (solely-owned, operating pilot facility)</li> <li>Taiwan lead facility (licensing, commercially operating)</li> <li>Armenia and Georgia lead and lithium facilities (licensing, in development )</li> </ul>
Headquarters	<ul style="list-style-type: none"> <li>Houston, Texas (Delaware Incorporated)</li> </ul>
Key Partners	<ul style="list-style-type: none"> <li>Investors: Circulate Capital, CDFO (Trafigura founder's family office), MIH Capital Management, Prospect Innovation, Francis Family Office, Prismecs, New Dawn Holdings and others</li> <li>Key Commercial Relationships: Glencore, ACME, STC, Volvo, Gold Star, OM Commodities, SPIRO, Mel Metal, GSI Environmental, NREL, Worley and others</li> <li>Offtake: Glencore (15-year global contract)</li> </ul>



GreenLead™



Lithium Carbonate



Graphite



Plastic

# Ace has a team of over 44 technologists and recycling & mining business experts



**Nishchay Chadha**



**CEO**

- 19 years in **recycling, global trading, mining, supply chain**
- Asia Pacific & Middle East **head for lead/zinc & India/MENA for scrap metals at Trafigura**
- **Senior global positions in Vedanta & 2 startups**
- Bachelor of Technology in Mining Engineering from **IIT (ISM) Dhanbad** and MBA in Finance, Strategy & Leadership from **ISB, Hyderabad**



**Teodoro Alban**



**CFO**

- 26 years in **finance & treasury, M&A** and business development
- **CFO position at Acclaim Energy and Rotary Drilling Tools, Inc**
- Bachelor of Science in Mechanical Engineering from Brown University & Master of Finance from London Business School



**Vipin Tyagi**



**CTO**

- 12 years in **battery materials cleantech recycling**
- **PhD in Mechanical Engineering from Texas A&M University** and Bachelor of Technology in Mechanical Engineering from **IIT Bombay**
- Co-authored several peer reviewed journal and conference publications
- Ex **Merrill Lynch** Trader, USA



**Siddharth Roy**



**Business Director**

- 15 years in **base & precious metals, recycling, international trading, and logistics**
- Hindustan zinc manager APAC
- Startups – global head of lead & zinc



**Farid Ahmed**



**VP – Business Development**

- 30+ years in the **metals sector** with deep ties to industry players across the globe
- Recognized as a global thought leader in commercial intelligence for **battery materials, energy, metals, and mining**



**Aaron Wee**



**VP Strategy & Investments**

- 10+ years in **investments, M&A, and consulting**
- Extensive VC experience in digital technology, web infrastructure, and blockchain



**Eric de Compiegne**

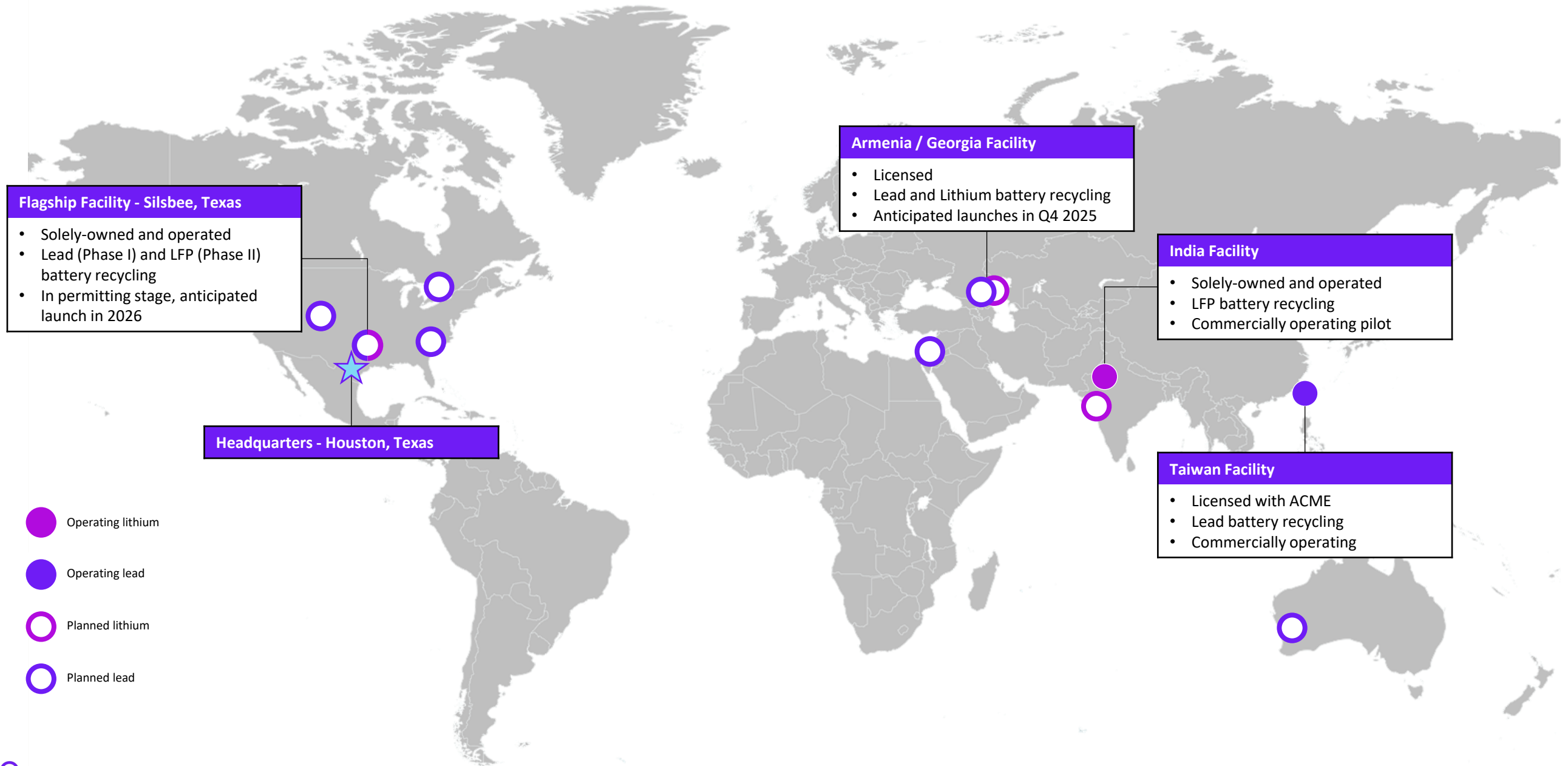


**SVP – European Operations**

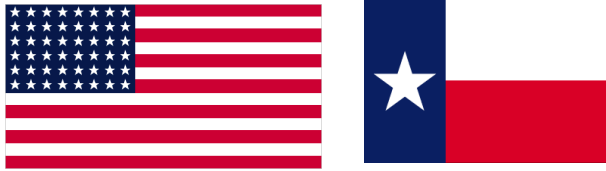
- 20+ years experience in **maritime logistics, offshore renewable energy, and decarbonization**
- **Managed large-scale industrial and infrastructure projects** across Europe, the Americas, and Asia
- **Director of Operations at EnergiEP**, a energy management platform for smart buildings (since acquired by ACOME)




# With minimal capital deployment, Ace expects to have a global footprint by 2026

*Ace is aiming for strong growth and displays a clear path to profitability through its hybrid deployment strategy*



# Ace is developing and building out its flagship U.S. recycling facility in Silsbee, Texas



Model	Solely-Owned & Operated		
Phase	1A	1B	2
Battery Feedstock	Lead	Lead	Lithium – LFP
Stage	New	Modular Expansion	New
Anticipated Launch	H1 2026	2027	2027
Initial Volume (equivalent Scrap Batteries in MT/year)	30,000	100,000	5,000
Feedstock	 		

## Why Texas?

- Issued EPA ID to handle batteries in Texas
- **Leased location with suitable zoning, industrial power supply, and workforce availability**
- Strategically located near feedstock providers, key U.S. manufacturers and end customers, and well-established freight systems (port, rail, trucking)
- Proximity to Ace HQ

## Anticipated Outcomes

- **Full control over plant capacities and products to showcase and build future partnerships**
- **First commercial GREENLEAD® recycling facility** in the U.S.
- **First commercial LFP battery recycling facility** outside China
- Support Ace **achieve profitability in 2026**

## Two Phase Strategy

- **Phase I LAB:** Capitalize on existing shortage of LAB recycling, higher relative battery recycling margins, and continued tightening of regulatory standards on smelters
- **Phase II LIB:** Secure advance permits for electronics recycling and future recycling for EV, data centers, and energy storage

# The ACE Flagship Battery Recycling Facility



ACE Texas Phase I projected annual run rate

**18,450 metric tons  
(~\$40M Revenue)<sup>1</sup>**

(equivalent to 1.32% of domestic consumption)<sup>2</sup>

Existing partnerships are sufficient to cover over **2x of Phase I requirements**

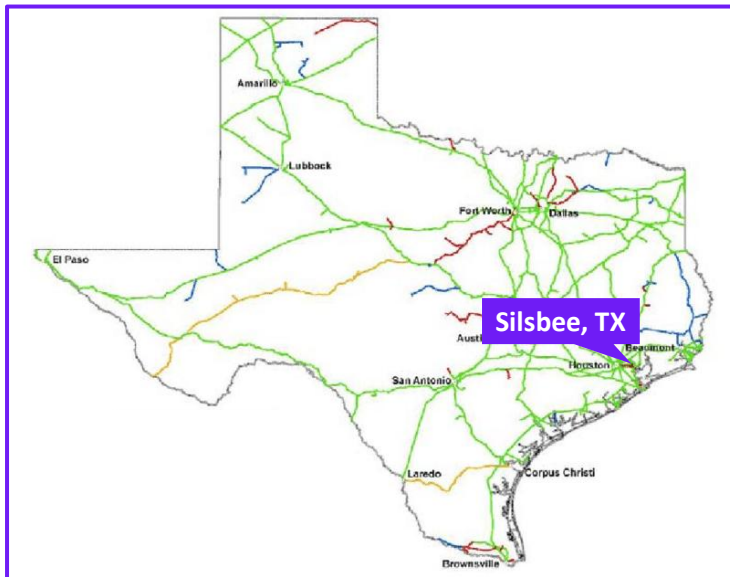


Existing offtake agreement can cover over **3.3x of Phase I capacity**

GLENCORE

**Phase I machinery CAPEX: \$~23 million | Steady state EBITDA: \$~ 8.5 million<sup>1</sup>**

**Phase II machinery CAPEX: \$~50 million | Steady state EBITDA: \$~25 million (incremental)<sup>1</sup>**



## Strategically located

Scalable industrial facility

Direct rail access for feedstock and offtake delivery

Permitting support provided by:



## Direct rail access to ACE facility

- Silsbee is a major rail junction between the ports of Houston and Beaumont
- **Accessible to major U.S. rail, trucking, and water transport networks**
- Close proximity to feedstock collection points

## 2025 Development Launch

Location secured in Q2

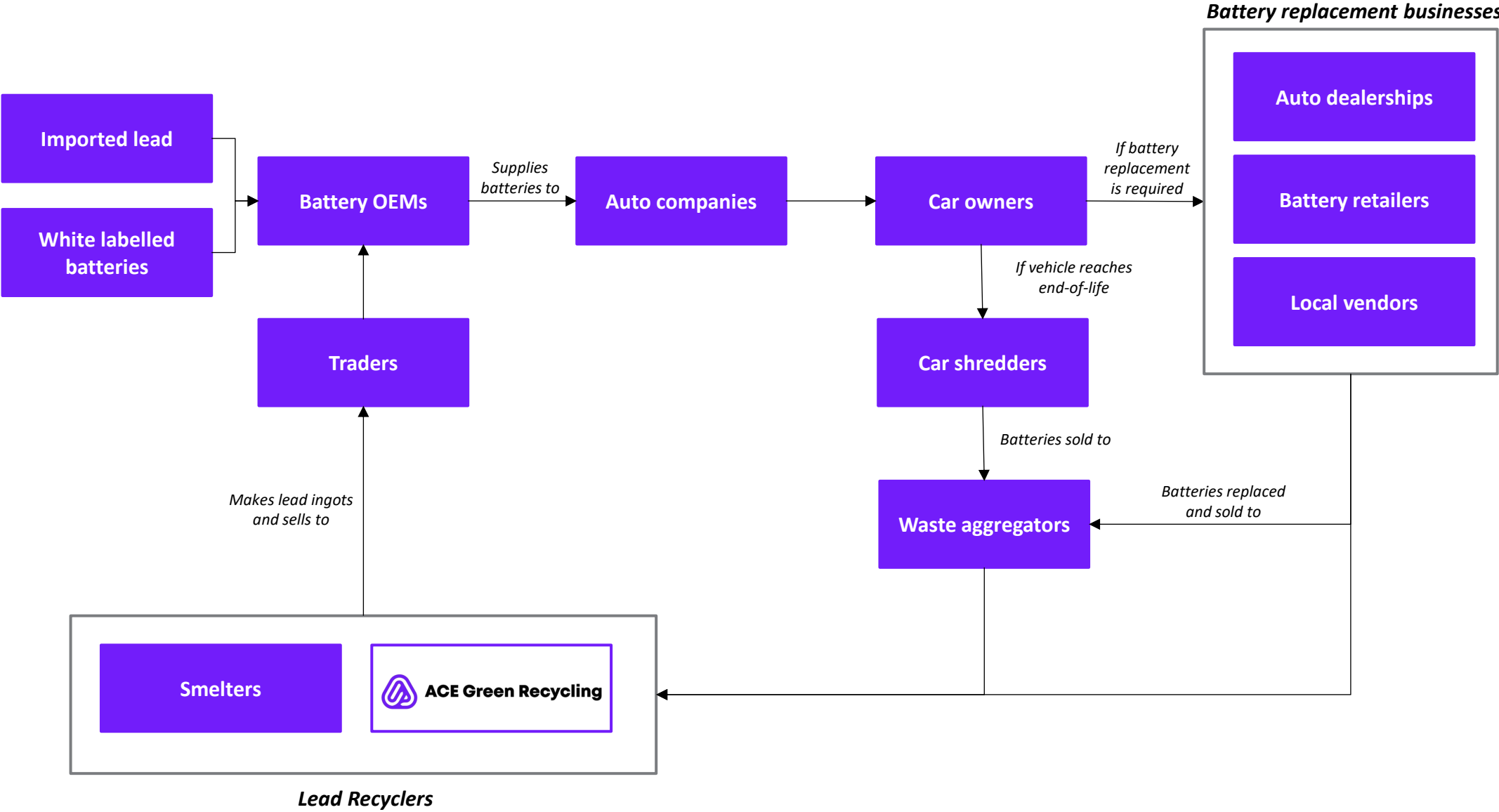
Permitting underway as of Q2 (completed by YE)

Anticipated delivery of recycling equipment in Q4

## 2026 Anticipated Phase I Commercial Launch



# Circular supply chain of batteries in the United States



Lead consumption 2024<sup>1</sup>  
**1,800,000 metric tons**

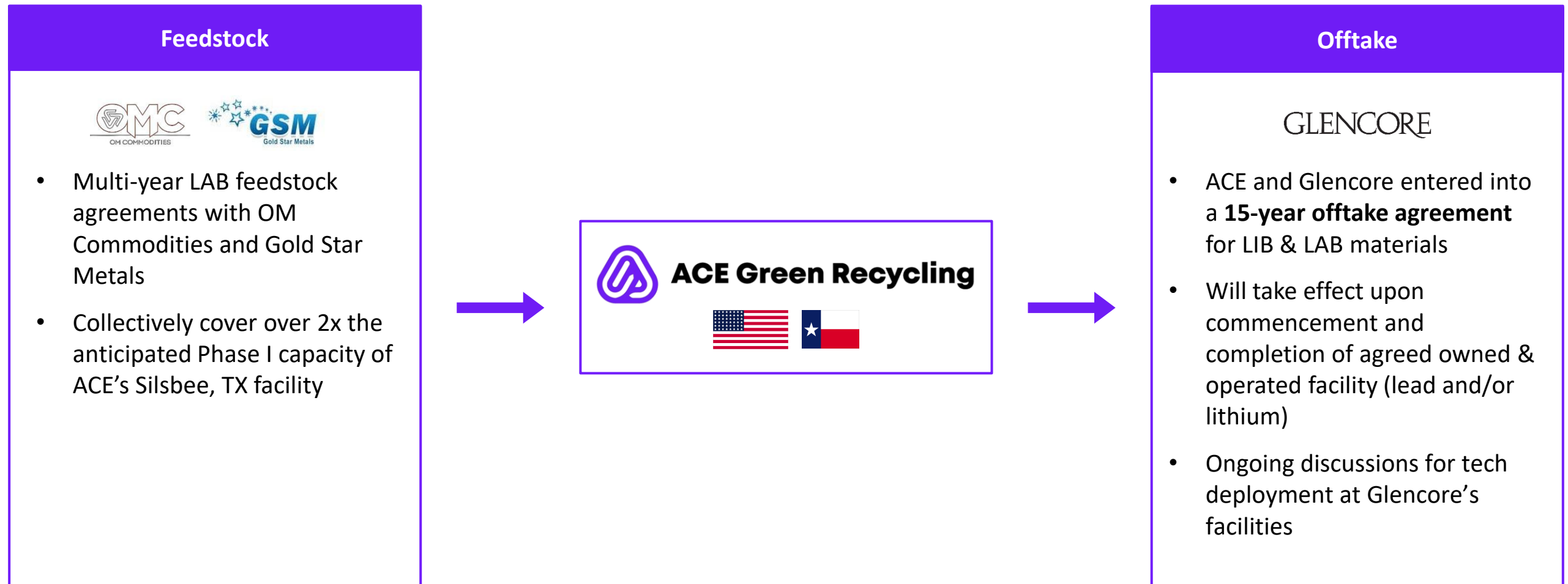
Lead battery market size 2024<sup>2</sup>  
**\$11.7 – 13.6 billion**

Lead battery scrap exports 2023<sup>3</sup>  
**\$436 million**

Raw lead imports 2023<sup>4</sup>  
**\$1.3 billion**

Lead battery imports 2023<sup>5</sup>  
**\$3.1 billion**

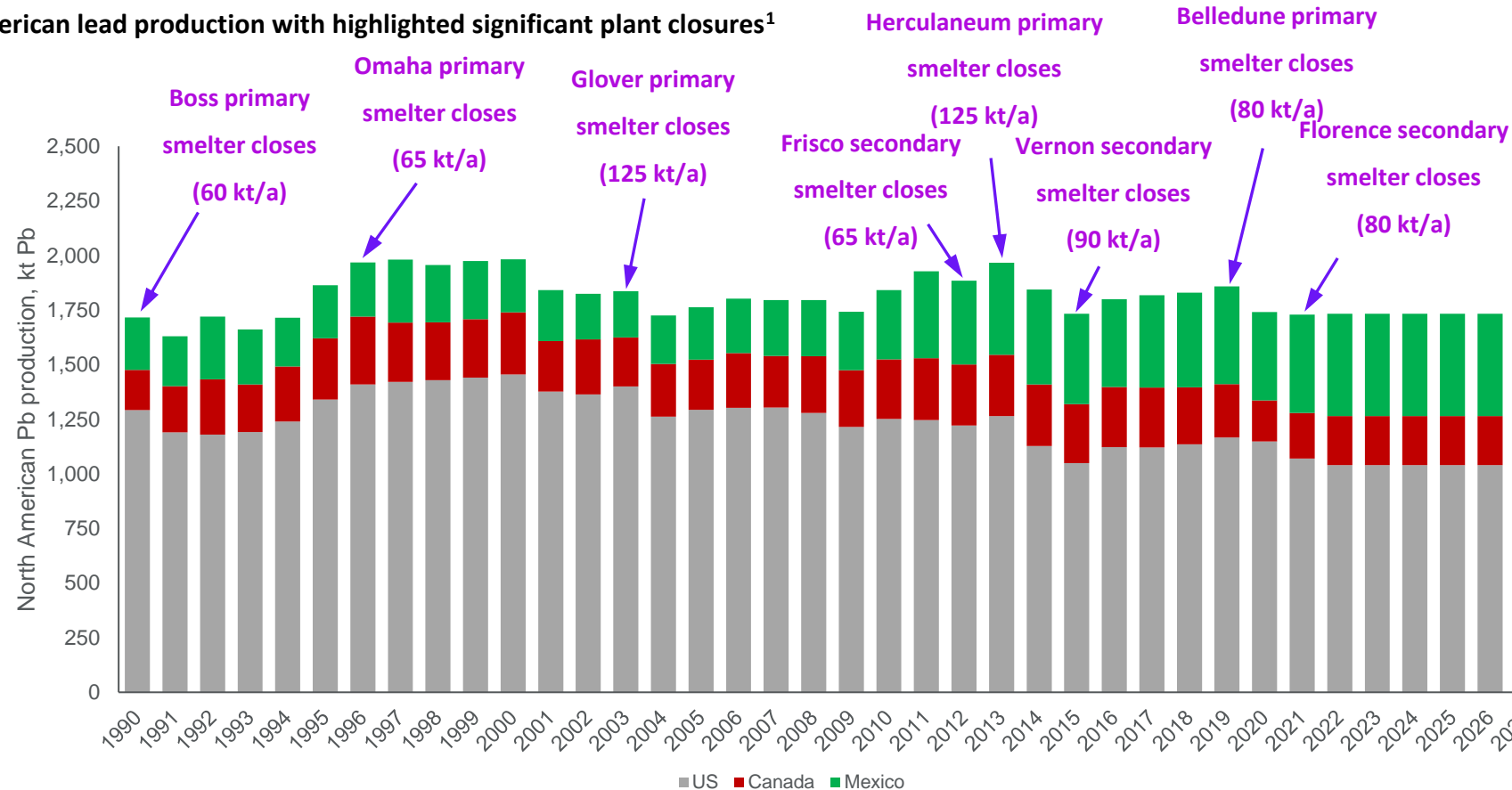
# Significant blue-chip validation from leading metals, battery, and resources firms



# Incumbent players have faced multiple plant closures

*Environmental pressures and industrial accidents are creating a difficult operating environment for traditional smelters*

North American lead production with highlighted significant plant closures<sup>1</sup>



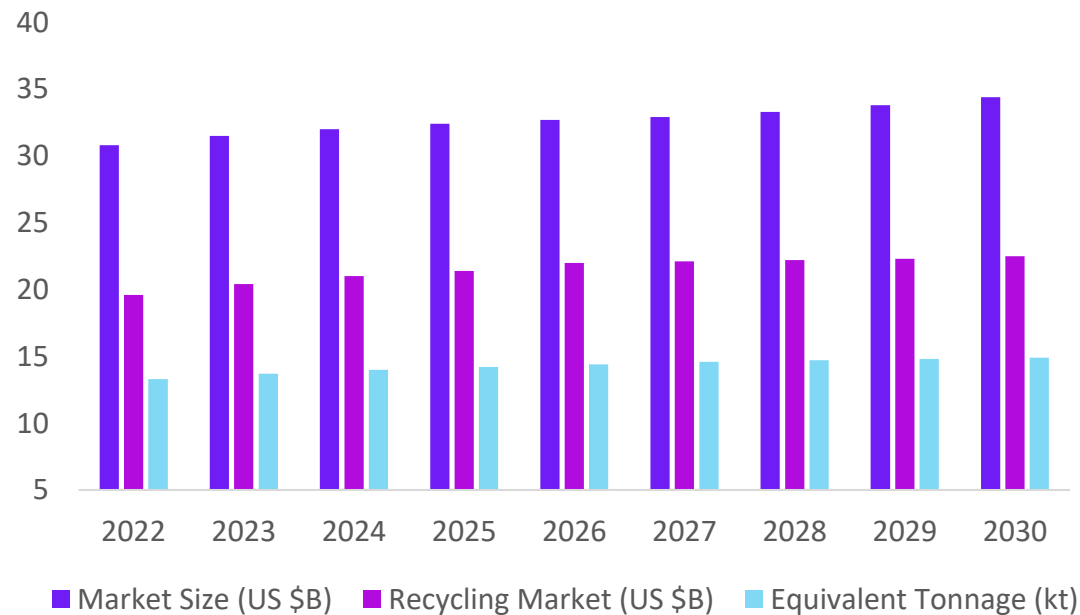
- All North American smelter closures have been a consequence of environmental pressure, except for the Canadian Belledune primary from asset rationalisation and the Florence secondary plant due to operational difficulties.
- As a consequence of these closures, US production has fallen 20% during this period, while consumption has grown by 17%.
- The fallout is a US market moving from nearly balanced in 1990 to now running a ½ million tonne annual deficit.



# Battery materials across the chemistry spectrum will be required to ensure an electrified future in many diverse applications and markets

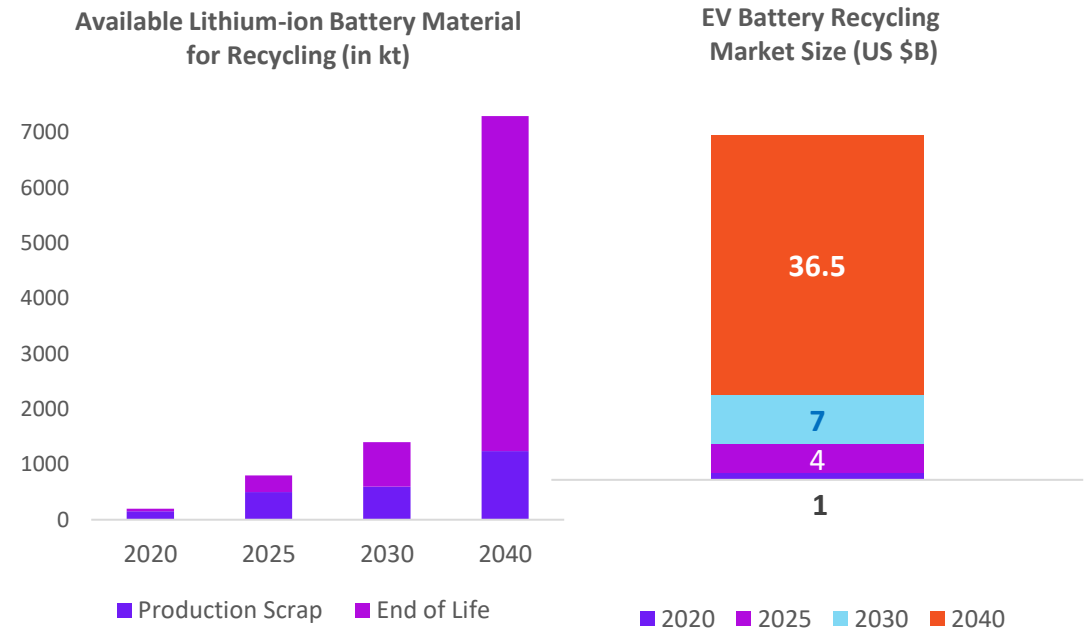
Lead Recycling Market by 2030<sup>1</sup>

**US\$ 22.3B**



Lithium-ion Battery Recycling Market by 2040<sup>2</sup>

**US\$ 36.5B**



Battery chemistries differ by application – for energy storage, mobility or personal devices - and in markets – where cheaper lead batteries (LAB) and (Lithium Ferro Phosphate) LFP batteries may be preferred over more expensive (Nickel Manganese Cobalt) NMC ones

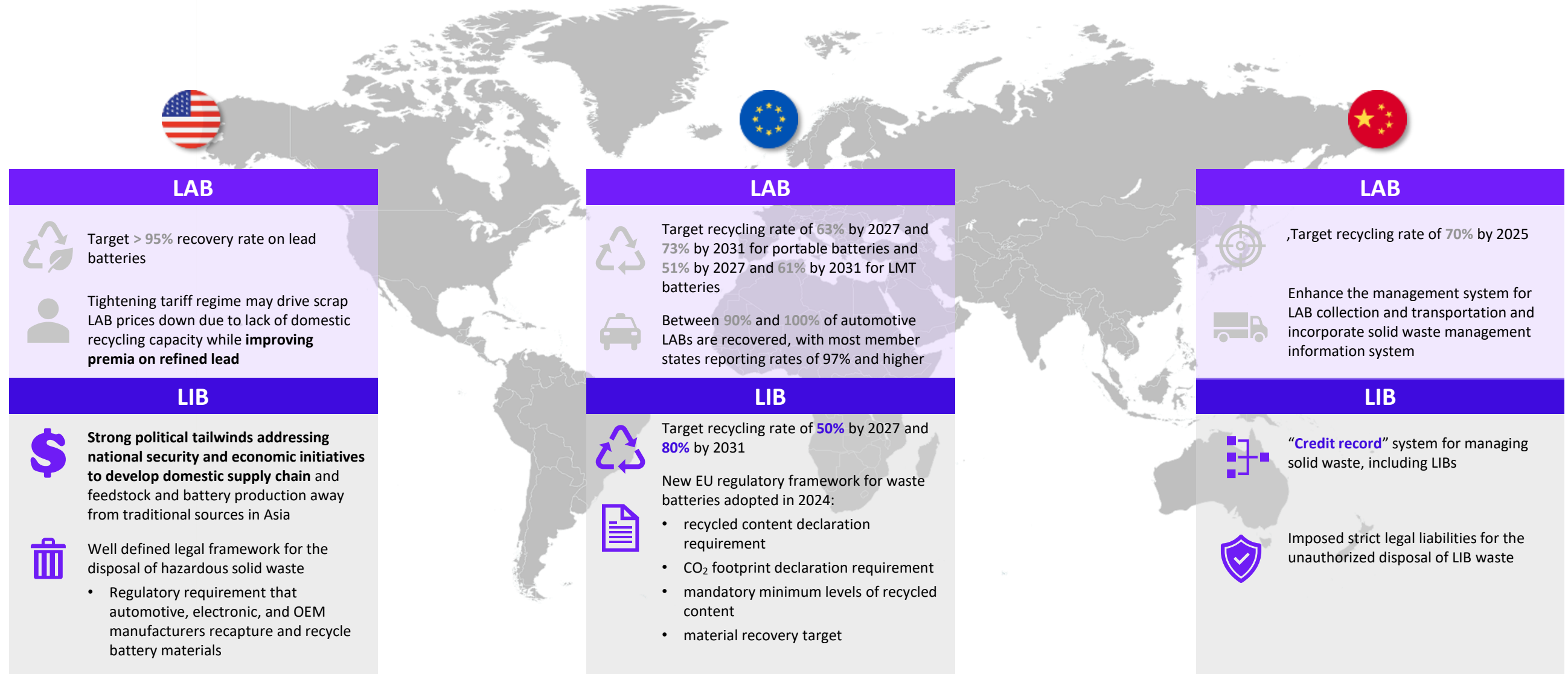
## Mining alone is insufficient, pollutive, energy inefficient and expensive



China is far ahead in the mining race, threatening to leave the U.S., Europe and India behind

# Regulatory tailwinds are driving multi billion-dollar investments into urban mining, a.k.a. recycling

We believe that the prioritization of a domestic supply chain will continue to catalyze the implementation of battery material recycling in the U.S. and Europe and ensure strong future demand for materials processed locally





# Traditional vs Ace: the differences are CLEAR

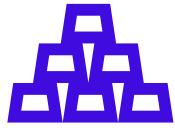
**Typical Recycling Smelters**



**Ace Green Facility**



# Ace Green Recycling – Lead battery recycling USPs



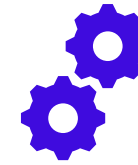
## “GREENLEAD®” Recovery

- **Fully electrified process** with zero Scope 1 carbon emissions
- Recovers **99% of battery-grade lead**
- **Safer operator conditions** allow for continuous production



## No Smelting or Slag Dumping – Ease of Permitting

- **Replaces legacy smelting**, which faces significant regulatory pressure
- **Developed market customers facing shutdowns** of existing polluting facilities



## Ease of Deployment

- **Low-cost modules** allow customers to set up commercial pilot for less than US \$0.5M and seamlessly transition from existing operations



## Dependence on Ace

- **Proprietary chemicals** lock customers in with Ace for long-term deals for licensing & JV business models, **providing a recurring source of revenues**

# Ace Green Recycling – Lithium battery recycling USPs



## “LithiumFirst™” Recovery

- **Proprietary process** built in-house by Ace
- **>98% purity lithium carbonate**
- **Fully electrified process** with relatively low energy requirements
- **High IP defensibility** independent of legacy technologies



## Modularity

- **Significant reduction in initial CapEx** (~40% savings)
- **Lower minimum viable facility size** (5,000 MT/year)
- **Enables phased growth** to meet growing market needs



## No Water Dumping – Ease of Permitting

- **Closed loop water cycle and zero Scope 1 carbon emissions**, allow for easier permitting
- Ace already **working with regulatory agencies** to establish recycling standards



## Battery Agnostic

- Proven ability to **recycle all commercially-available** lithium batteries (NMC, LFP, etc.)
- **Not dependent on OEM waste** for feedstock or customer base



# Ace technology has proven its credentials commercially by processing 4.7 million lbs of LFP, NMC and lead batteries with zero toxic waste dumping or smelting

## Lithium Highlights

- ✓ Successfully processed over **700,000 lbs of LFP & NMC scrap**
- ✓ Overall recoveries of **> 90%**; NMC salt recoveries of **> 99%**; lithium recoveries of **> 70%**
- ✓ Graphite recoveries of **> 90%**
- ✓ Products accepted by **U.S., European, and Asian players**

## Lead Highlights




- ✓ Successfully processed over **4 million lbs from Luminous (Schneider Electric) and at ACME**
- ✓ Produced **99.98+% purity battery-grade lead**
- ✓ Purities **exceed London Metals Exchange** standards
- ✓ In process of setting up facilities in **USA** (Ace owned) and **Armenia** (tech license)

*Both Ace's lithium and lead battery recycling tech has 3<sup>rd</sup>-party validation from*

**ARTHUR LITTLE**



# Leveraging over a decade of experience and tech development for future growth

Revenue Source	Description	FY 2024	5-Year Target <sup>2</sup>
 <b>Solely-Owned &amp; Operated Facilities</b>	<ul style="list-style-type: none"> <li>Capture full economics and recognize full margin, powered by Ace's recycling technology</li> <li>Establish Texas facility as flagship for Ace lead (Phase I) and LFP lithium (Phase II) battery recycling</li> <li>New source of Ace revenue growth in and beyond FY 2026</li> </ul>	3.7%	30%
 <b>JV Ownership and Licensing Fees</b>	<ul style="list-style-type: none"> <li>Enter new geographies with limited investment and operational footprint</li> <li>Establish key strategic relationships (upstream and downstream)</li> <li>Served as low-cost R&amp;D programs to optimize technical processes and infrastructure requirements</li> <li>Proved modular system at commercial scale</li> </ul>	1.4%	40%
 <b>Supply Chain</b>	<ul style="list-style-type: none"> <li>Trade, source, and supply lead and lithium feedstock to affiliate and 3rd-party facilities                             <ul style="list-style-type: none"> <li>Battery collection, battery tolling, black mass tolling, unrefined lead and black mass sales</li> </ul> </li> <li>Establish key strategic relationships (upstream)</li> <li>Supply proprietary chemical mix critical to Ace's green recycling technology</li> <li>Source of recurring revenues and a foundational source of R&amp;D working capital</li> </ul>	94.9%	30%

# Investment Summary: Leading the future of sustainable battery recycling



## Compelling Market Opportunity

- *\$22.3 billion lead battery recycling market by 2030<sup>1</sup>*
- *\$36.5 billion lithium battery recycling market by 2040<sup>2</sup>*
- *Regulatory tailwinds driving adoption*



## Validated Green Technology Platform

- *Zero Scope 1 carbon emissions, environmentally superior process*
- *Commercial operations proven across multiple facilities*
- *Substantially lower CapEx enables rapid market capture*
- *Protected by comprehensive IP portfolio (109+ patent filings)*



## Near-Term Value Catalysts

- *Texas facility launch in H1 2026 (lead) and H2 2026 (lithium)*
- *First GREENLEAD® and LFP recycling facility in the U.S.*
- *Glencore 15-year offtake agreement*
- *Anticipated path to profitability by 2026*

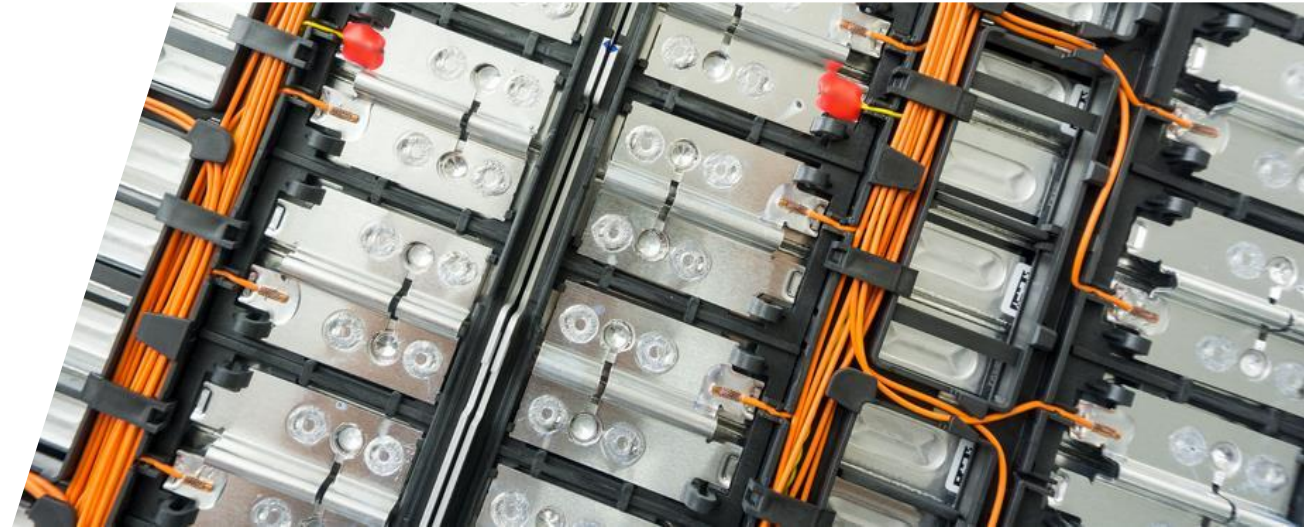


## Key Investment Highlights

- *\$24.1 million current revenue*
- *Multiple revenue streams: operations, licensing, supply chain*
- *Capital-efficient expansion model*
- *Experienced management team with proven execution*



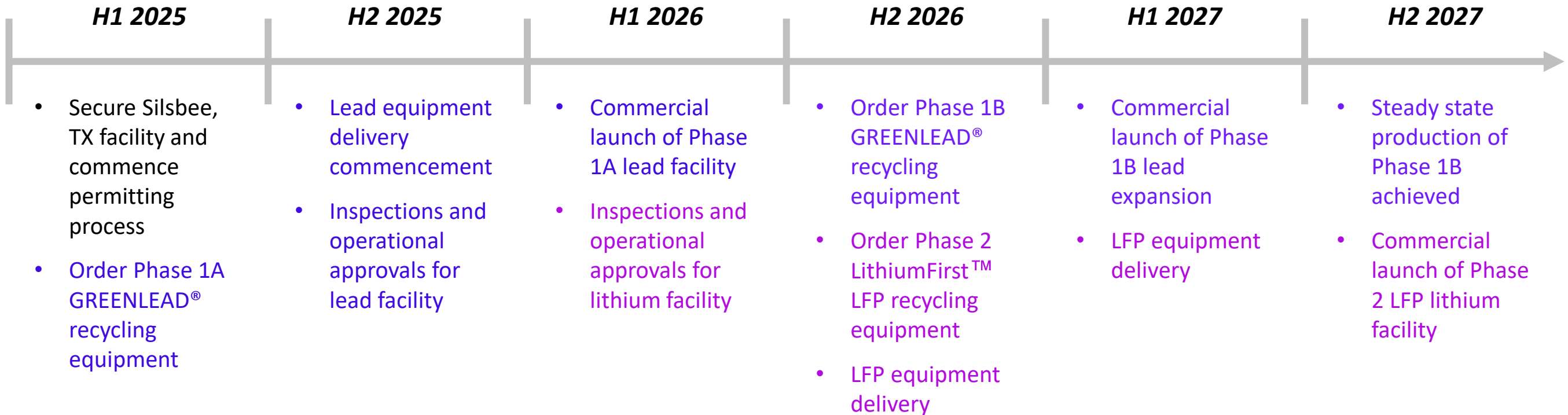
# Appendix



**ACE Green Recycling**















# Anticipated timeline of Texas facility



*Specific to Phase I – Lead recycling capabilities*


*Specific to Phase II – Lithium recycling capabilities*

# Ace Green vs. conventional lead recovery

		 <b>GREENLEAD® LAB Technology</b>	 <b>Traditional Smelting</b>
		 <b>ACE Green Recycling</b>	
Energy Source	 Energy requirement	Low	High
	 Renewable power	Yes	No
Operations	 Operating environment	Room temperature	> 1000 °C
	 Modular	Yes	No
	 EHS risk	Low to none	High
Environmental Impact	 Scope 1 carbon emissions	Zero	0.5-1 kg/kg battery
	 Oxygen release	43 kg/1000 kg battery	No
	 Toxic waste creation	Very low volume	5x higher volume
%	 Lead metal recovery %	99+%	95%-97%



# Ace Green vs. conventional lithium recovery

		Ace Lithium Tech	Pyrometallurgy	Standard Hydro Process (Solvent Extraction)
		 <b>ACE Green Recycling</b>		
Operations	Minimum viable plant size	5,000 Tons PA	50,000 Tons PA+	20,000 Tons PA+
	NMC battery recycling	Yes	Yes	Yes
	LFP battery recycling	Yes	No	Emerging
	Lithium recovery	75%*	None	30-75%
	Graphite recovery	Yes	None	Yes
	Output flexibility	Yes	No (metal only)	No
Environmental Impact	Scope 1 carbon emissions	None	High	High
	Solid waste generation	None	High	Medium
	Liquid effluents	None	Low	High
Planning Efficiency	Intellectual property defensibility	High	Very low	Very low
	Relative energy requirements	Low	High	Low
	Long term ease of permitting	High	Low (landfilling & emissions)	Low (liquid effluents)

Ace is ready to scale globally with a vast network of supply chain partners, ongoing discussions or potential partners with past relationships

Select Partners



Industrial Associations



Select Research Partners



# Legal Disclaimer

## **Legal Disclaimer**

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## **Forward-looking Statements**

Certain information set forth in this presentation constitutes forward-looking statements including, but not limited to: (i) projected financial performance of the Company, in particular, that the Company will be profitable by 2026 and its 5-year target revenue distribution; (ii) future expected sources of revenue growth; (iii) the expected development of the Company’s business and projects, in particular its anticipated Texas facility including the anticipated timeline and outcomes thereof; and (v) the Company’s anticipated future growth/expansion. Forward-looking statements reflect management’s beliefs and opinions in respect of the future and are not guarantees of future performance, and undue reliance should not be placed on them. Such forward-looking statements necessarily involve known and unknown risks and uncertainties that may cause actual performance and financial results in future periods to differ materially from any projections of future performance or result expressed or implied by such forward-looking statements. The Company undertakes no obligation to update forward-looking statements if circumstances or management’s estimates or opinions should change, except as required by applicable securities laws.