AQUA METALS

LEADING A REVOLUTION

In Lead and Lithium Battery Recycling

NASDAQ: AQMS

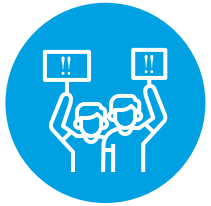
March 2023

Disclaimer

This presentation contains forward-looking statements concerning Aqua Metals, Inc. Forward-looking statements include, but are not limited to, our plans, objectives, expectations and intentions and other statements that contain words such as "expects," "contemplates," "anticipates," "plans," "intends," "believes", "estimates", "potential" and variations of such words or similar expressions that convey the uncertainty of future events or outcomes, or that do not relate to historical matters. The forward-looking statements in this press release include our expectations for our pilot recycling plant, our ability to recycle lithium-ion batteries and the expected benefits of recycling lithium-ion batteries. Those forward-looking statements involve known and unknown risks, uncertainties, and other factors that could cause actual results to differ materially. Among those factors are: (1) the risk that we may not be able to acquire the funding necessary to develop our recently acquired five-acre campus; (2) the risk that we may not be able to develop the recycling facility on the five-acre campus within the expected time or at all; (3) even if we are able to develop the recycling facility, the risk that we may not realize the expected benefits; (4) the risk that licensees may refuse or be slow to adopt our AquaRefining process as an alternative to smelting in spite of the perceived benefits of AquaRefining; (5) the risk that we may not realize the expected economic benefits from any licenses we may enter into; (6) the risk that we may not be able to access additional capital, through the sale of our TRIC facilities and equipment or otherwise, as and when needed and (7) those other risks disclosed in the section "Risk Factors" included in our Quarterly Report on Form 10-Q filed on November 3, 2022. Aqua Metals cautions readers not to place undue reliance on any forward-looking statements. The Company does not undertake and specifically disclaims any obligation to update or revise such statements to reflect new circumstances or unanticipated events as they occur, except as required by law.

Investor Highlights

Patented recycling solution that has the potential to deliver the best economics and the lowest environmental impact



Surging demand

EVs, mobile devices, solar storage, everything uses batteries, and demand is only growing.

Component deficit

The minerals for making modern batteries are rare, expensive, and frequently mined in unfriendly regions. The US does not have a domestic supply chain and China is increasingly creating a monopoly.

Environmental disaster

Legacy recycling methods are dirty, hazardous, and inefficient. Current Lithium Ion (Li-Ion) recycling methods don't recover Lithium, which costs $76,000/MT

Innovative solution with operational pilot proving technology, and plans for commercial-scale campus

Massive and growing global addressable market

Greenfield opportunity for partnerships and strategic alliances

Strong IP protection:
73 global patents; 43 patents pending
Only electro-hydrometallurgy recycler in North America

Sufficient cash to reach revenue

Only Li-Ion recycling method with pathway to net-zero operations

AquaRefining recovers all valuable materials, including Lithium Hydroxide and Manganese Dioxide, which are not recovered by competing methods

The World Is Powered By Batteries

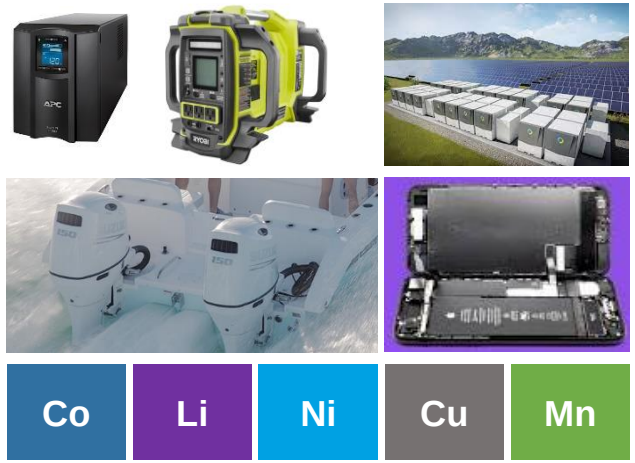
Lead-Acid Batteries (LAB)

- Most of LABs are used in EVs/cars, forklifts, cranes, data centers and e-bikes
- LAB market is about $65B globally
- 95% of LABs are recycled, but at massive environmental cost through smelting, one of the top polluting industries in the world
- Typical LAB contains 60 to 80 percent recycled lead and plastic
- LAB market expected to rise at 5.2% CAGR from 2021-2031 [1]

Pb | PbO_2 | $PbSO_4$ | H_2SO_4

Lithium-ion Batteries (LiB)

- Energy storage, microgrids, electric vehicles, and mobile electronics driving use-cases
- Only 5% of LiBs are recycled globally, from an estimated 8M tons/yr waste stream
- 145M EVs predicted to be on the roads globally by 2030
- Typical 10-year LiB life span, with estimated 15M tons to be retired by 2030
- Legacy recycling processes generate polluting emissions and chemical waste streams
- Legacy process can not recover lithium hydroxide
- Demand for LiB expected to grow from $44B to $94B by 2025 [2]
- Global battery demand for lithium and nickel will be 12-13x of the current size, 2x of the current size for cobalt by 2040E. [3]



Co | Li | Ni | Cu | Mn

1 Future Market Insights; 2 CNBC, March 2022; 3 - Goldman Sachs

Expensive, Scarce Components in Li-ion Batteries

As demand for EV batteries grows, countries are racing to build domestic supply chains
99% of raw and component materials for LiBs are produced outside the U.S.

Mineral	Pricing and demand growth[1]	Supply shortfall risks	Geopolitical challenges
COBALT Co	• **Currently $35,700/MT** • 9.26% CAGR 2021-2025	• Cobalt market to move into deficit by 2024.	• US sees cobalt a strategic and critical to U.S. security. • More than 2/3s mined cobalt comes from politically sensitive DRC.
NICKEL Ni	• **Currently $26,000/MT** • Nickel usage in EV battery sector predicted to increase 62% in 2022; 26% in 2023. • 7.3% CAGR 2021-2028	• Forecasted 196,000 tonne deficit of Class 1 material (Goldman Sachs) in 2022.	• Indonesia a major supplier; converts low-grade ore with high-carbon footprint to LiB quality. • Russia accounts for ~17% of production capacity.
MANGANESE Mn	• **Currently $2,500/MT** • High purity manganese needed for Evs. • Predicted 43% CAGR in next 5 years.	• Manganese dioxide is a critical link in the LiB supply chain that is driving EV adoption. • Many battery producers shifting to NMC vs. NCA batteries.	• US is 100% dependent on manganese imports. • China #1 miner and dominates manganese ore and concentrate imports, with 75% of imports.
COPPER Cu	• **Currently $9,000/MT** • Estimated 53% CAGR to 2040, driven by the electrification of transport and infrastructure (BNEF).	• By 2027, nearly 600,000 MT of additional copper needed to match EV demand (IDTechEx). • Forecasted deficit of 9M mt by 2030 (BMO). Capital markets), and 14M mt by 2040 (BNEF).	• Supply chain issues at key copper Latin American countries, dearth of new mines.
LITHIUM Li	• **Currently $76,000/MT (LiOH)** • 20.6% CAGR 2020-2025 • Lithium use up 4x since 2010 (BNEF).	• Global LI market predicted to move into deficit starting in 2025. • Typically produced as lithium carbonate, requires additional refining.	• China dominates lithium refining. 96% of Australia's exports go to China; largest importer of Chile's lithium carbonate.

1 Pricing based on London Metal Exchange, www.lme.com, and company estimates.

The Next Generation Recycling Process

Replaces furnaces and heavy chemical use with 100% electricity-powered and closed-loop regeneration, creating fundamentally non-polluting, cost-efficient solution that generates minimal waste

Proven for LABs and expanding to LiBs

Strong IP protection:

73 global patents

43 patents pending

Recovers the high-value metals lost in smelting, and produces high purity products

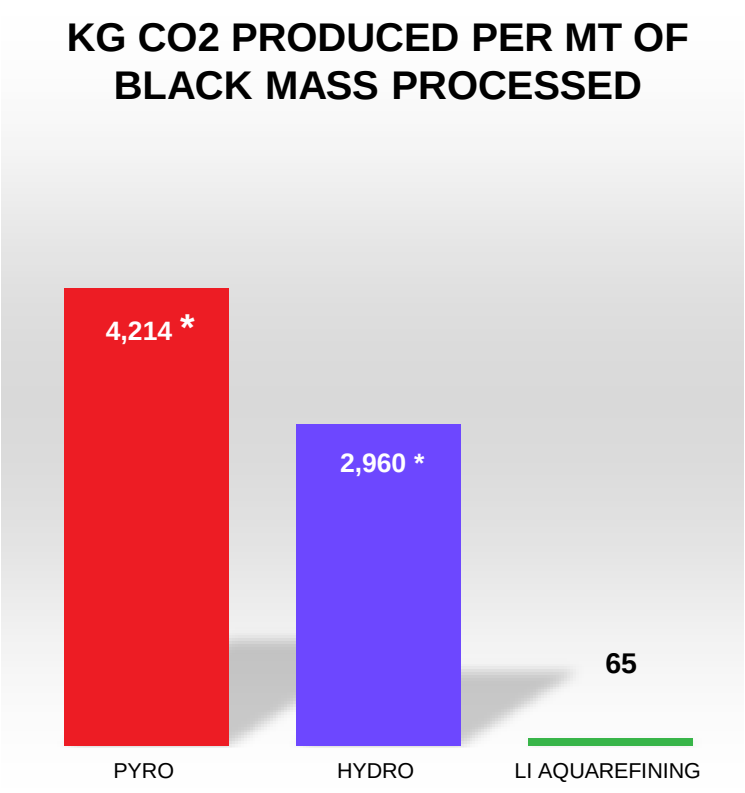
Safer work environment, less hazardous materials

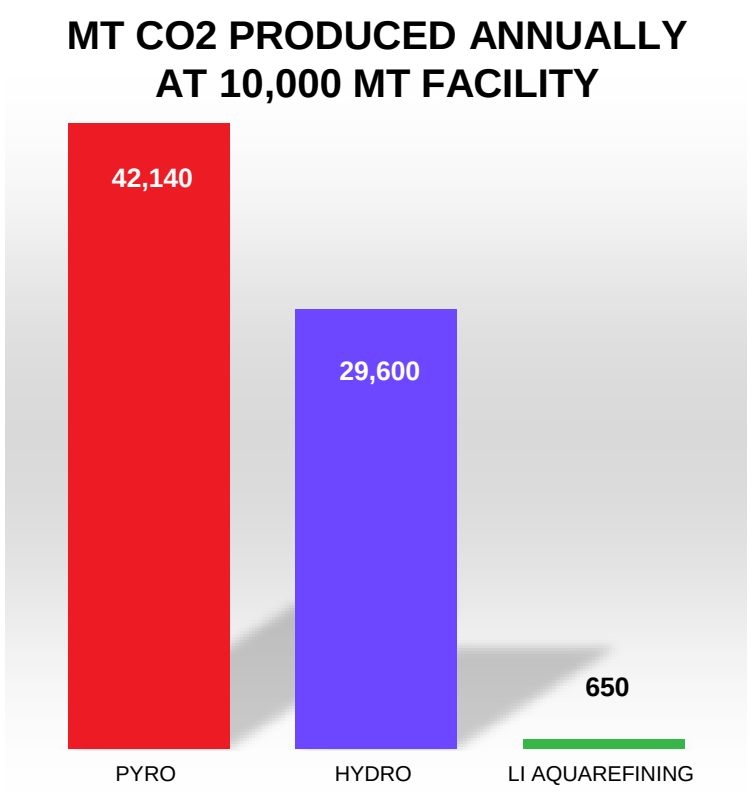
The only recycling process that:

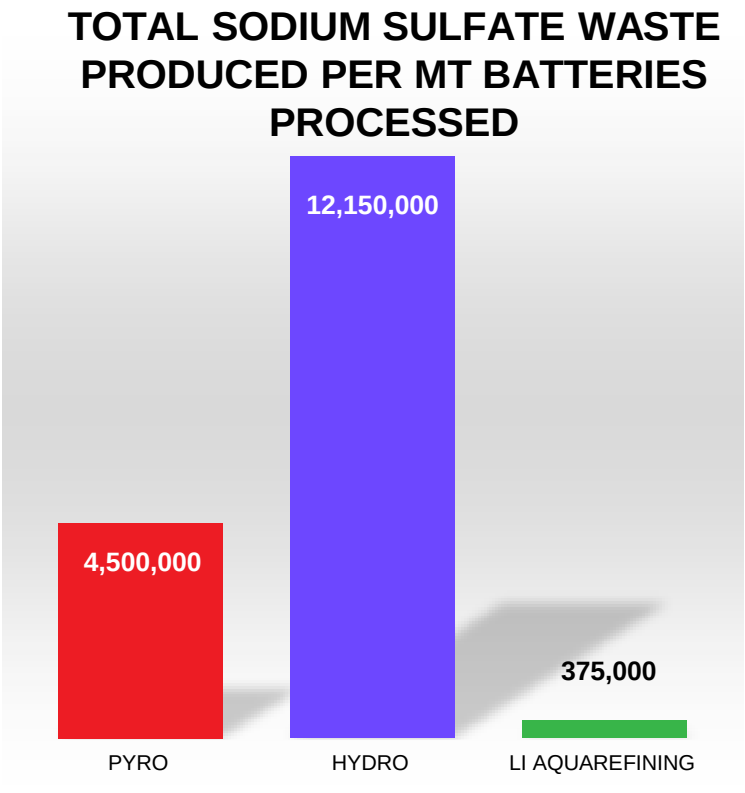
Produces lithium hydroxide directly, reclaims high purity metals (not salts), regenerates chemicals used in closed-loop system, and has a clear pathway to net-zero operations

Game-Changing Environmental Superiority

- Aqua Metals' Li AquaRefining technology uses drastically less energy – and is powered by electricity, instead of fossil fuels
- The process also produces markedly less waste than currently proposed solutions
- As we scale lithium recycling, these differences become very stark



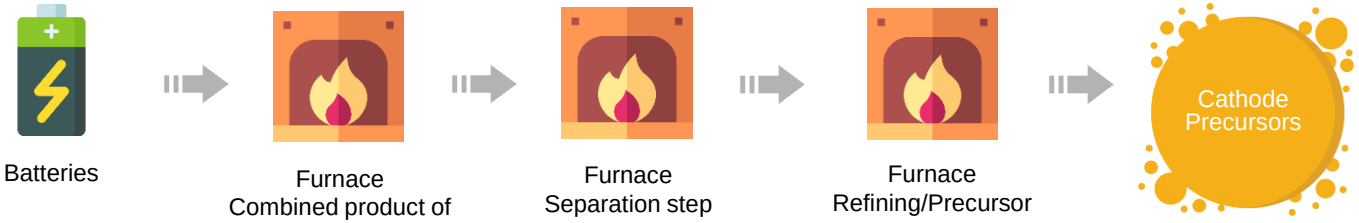




* Based on Argonne National Labs battery life-cycle model - Everbatt

PYRO

Smelting approach is currently a multistep pyro approach to get back into supply chain. Emissions will be unsustainable long term as recycling volume increases.



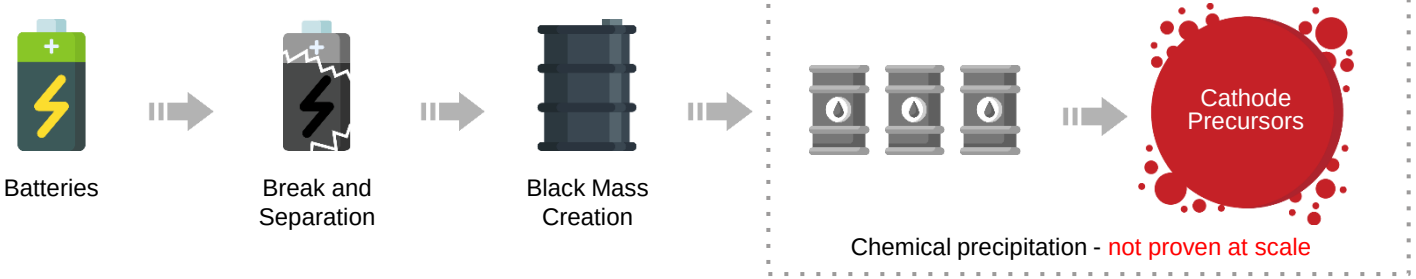
Co	Li	Ni	Cu	Mn
	X			X

High environmental impact – not viable long term. **Does not recover** lithium or manganese

Produces alloys (Ni-Co) requiring further refinement

HYDRO

Not commercially proven. High waste streams may prove economically inviable.



Co	Li	Ni	Cu	Mn
?	?	?	?	?

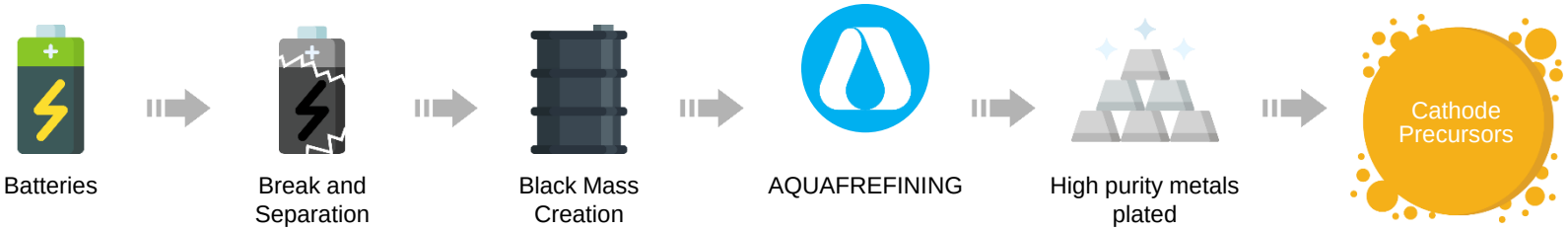
Expected to produce battery grade precursors **(High risk)**

Doesn't produce lithium hydroxide (only carbonate or salts)

Uses 200X the chemicals that Li AquaRefining uses

AQUAREFINING

Expected to be Economically and environmentally superior, producing higher quality product with better yield.



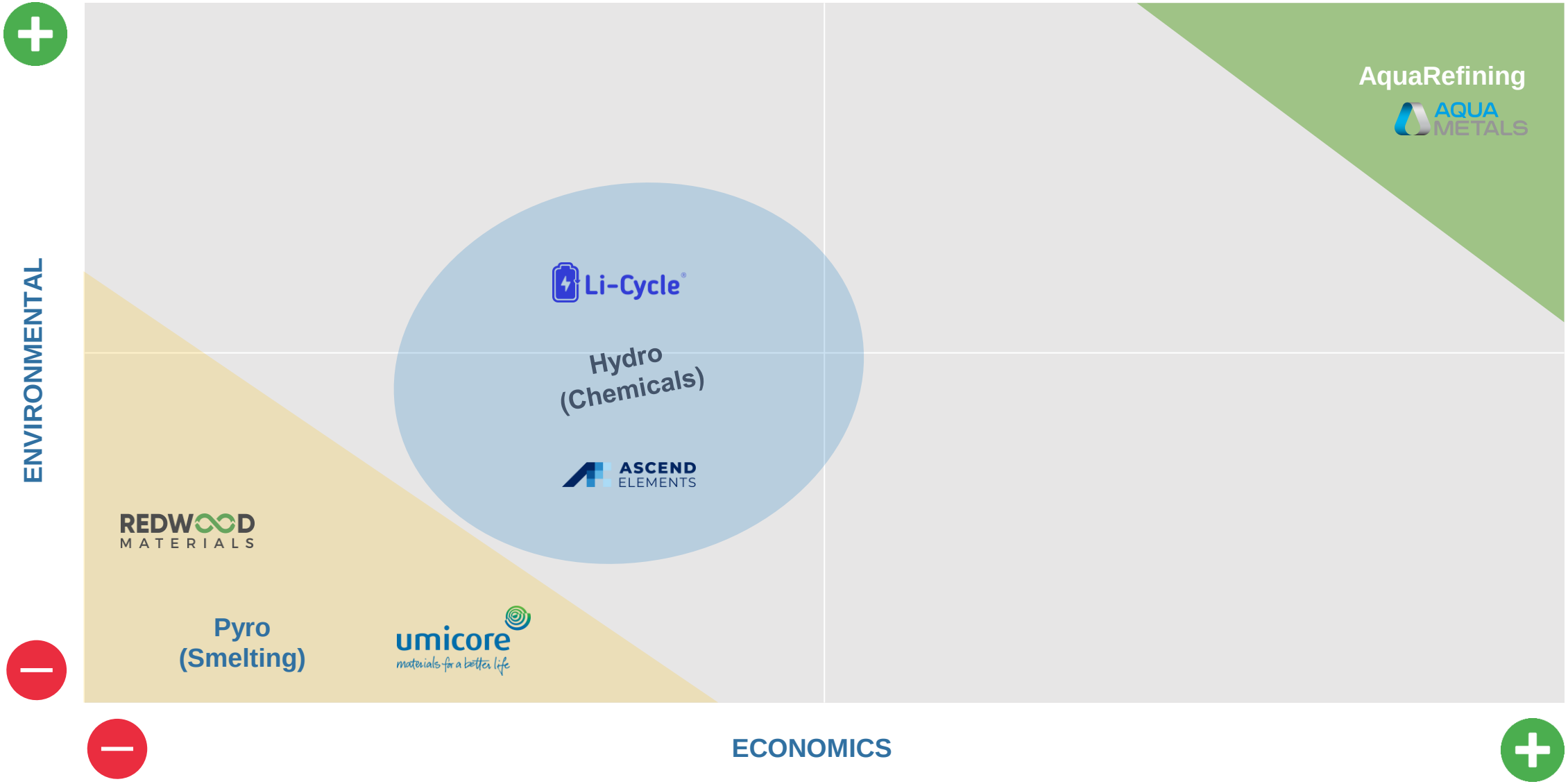
Co	Li	Ni	Cu	Mn

Produces pure metals (Co, Cu, Ni) for cathodes or adv mfg.

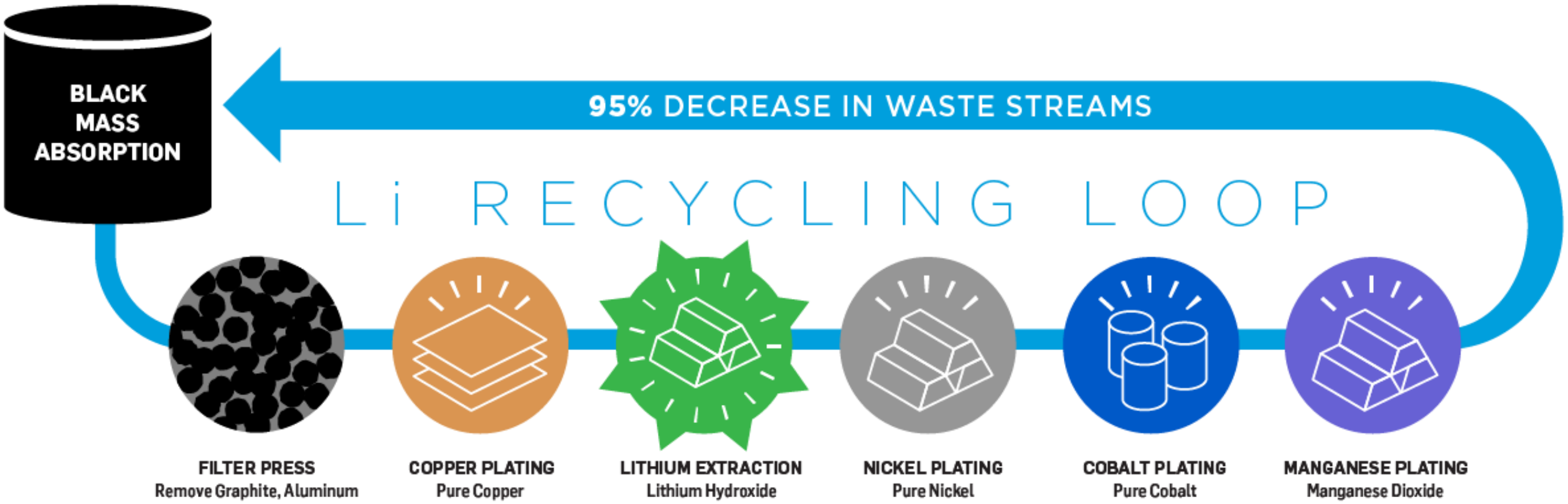
Directly produces **lithium hydroxide**

Electricity-powered, regenerates chemicals used in solution

Competitive Landscape Lithium Recycling



Li AquaRefining Flexibility



AQUA METALS: The Only Company To Recover All These Critical Minerals From Black Mass

AquaRefining's superior advantages

- ✓ **~95% reduction** in chemical waste streams compared to standard hydro processes
- ✓ **~96% reduction** in carbon reduction compared to standard hydro processes
- ✓ **~99%** carbon reduction over pyro
- ✓ **Negligible** greenhouse gas emissions that we cost effectively offset
- ✓ Produces **high purity, high value metals** that can be sold into the battery supply chain or metals industry
- ✓ **Recovers a higher percentage of the metals** from used lithium-ion batteries (cobalt, nickel, copper, lithium hydroxide & manganese)

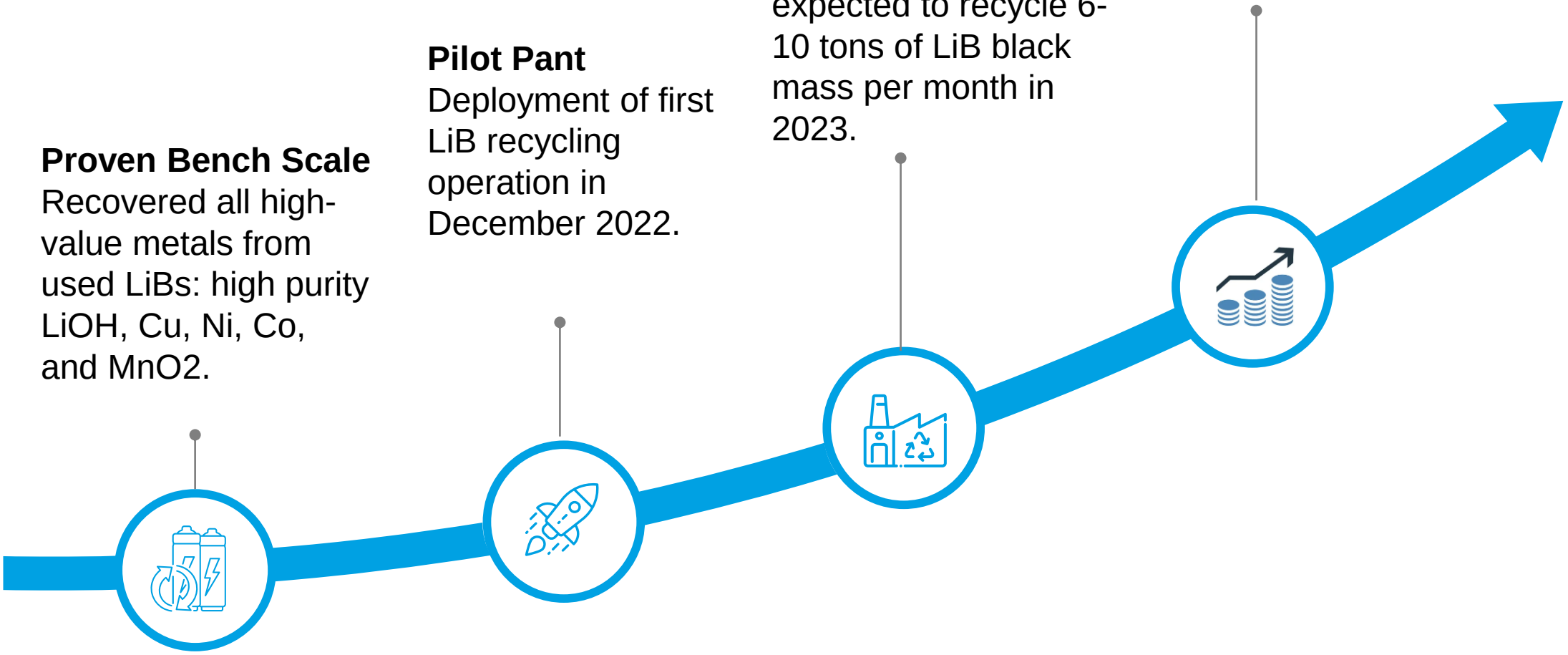
Recent Achievements

Proven Bench Scale
Recovered all high-value metals from used LiBs: high purity LiOH, Cu, Ni, Co, and MnO2.

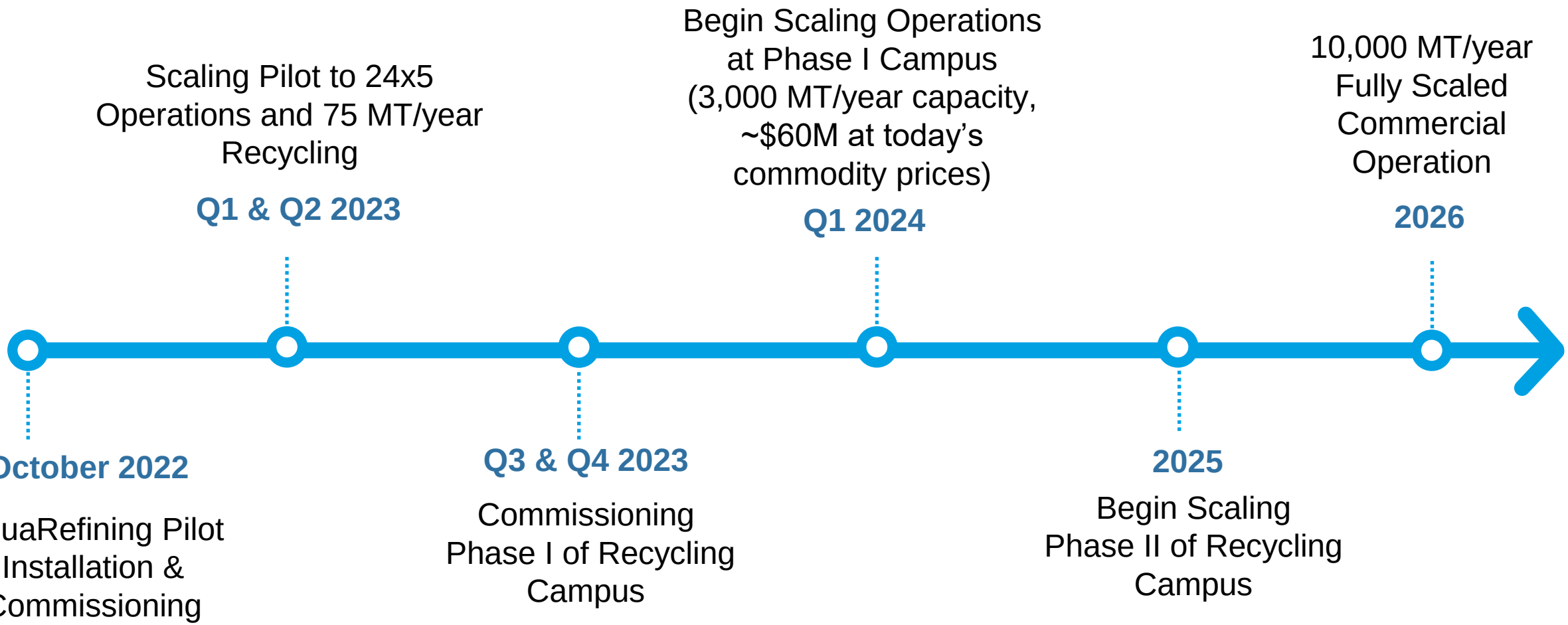
Pilot Pant
Deployment of first LiB recycling operation in December 2022.

Scaling Operations
Pilot plant scaling to 24x5 operations and expected to recycle 6-10 tons of LiB black mass per month in 2023.

Commercial Growth
Plans for new phased campus facility (at TRIC) with space for 10,000 t/yr.



Aqua Metals' Timeline



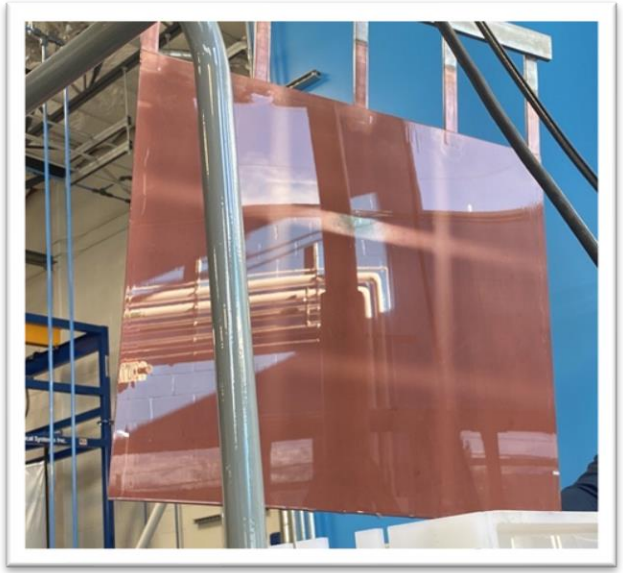
Pilot Plant Operational

Only regenerative electro-hydrometallurgy recycler in North America

Proven ability to remove valuable materials from black mass; scaling at Pilot facility

Black mass secured for operations through 2023

First sustainable LiB recycler - carbon footprint will be <10% of hydro process



Aqua Metals Converting Black Mass into Revenue

TAM: $165B based on 7.5M/MT of black mass x $22,000 of extracted value

LiB Recycling – An Exponentially Growing Market Opportunity

- LIB recycling predicted to hit $6.55B by 2028 with 18.5% CAGR vs. $1.7B in 2020 (Fortune Business Insights)
- By 2030 an estimated 15M tons of LiBs will reach end of life and need to be recycled
- Battery recycling attracting major investments - Redwood, Li-Cycle, Ascend
- Upcoming DOE grant status, awards between $10M (applied for) - $100M (applying now through 2Q2023)

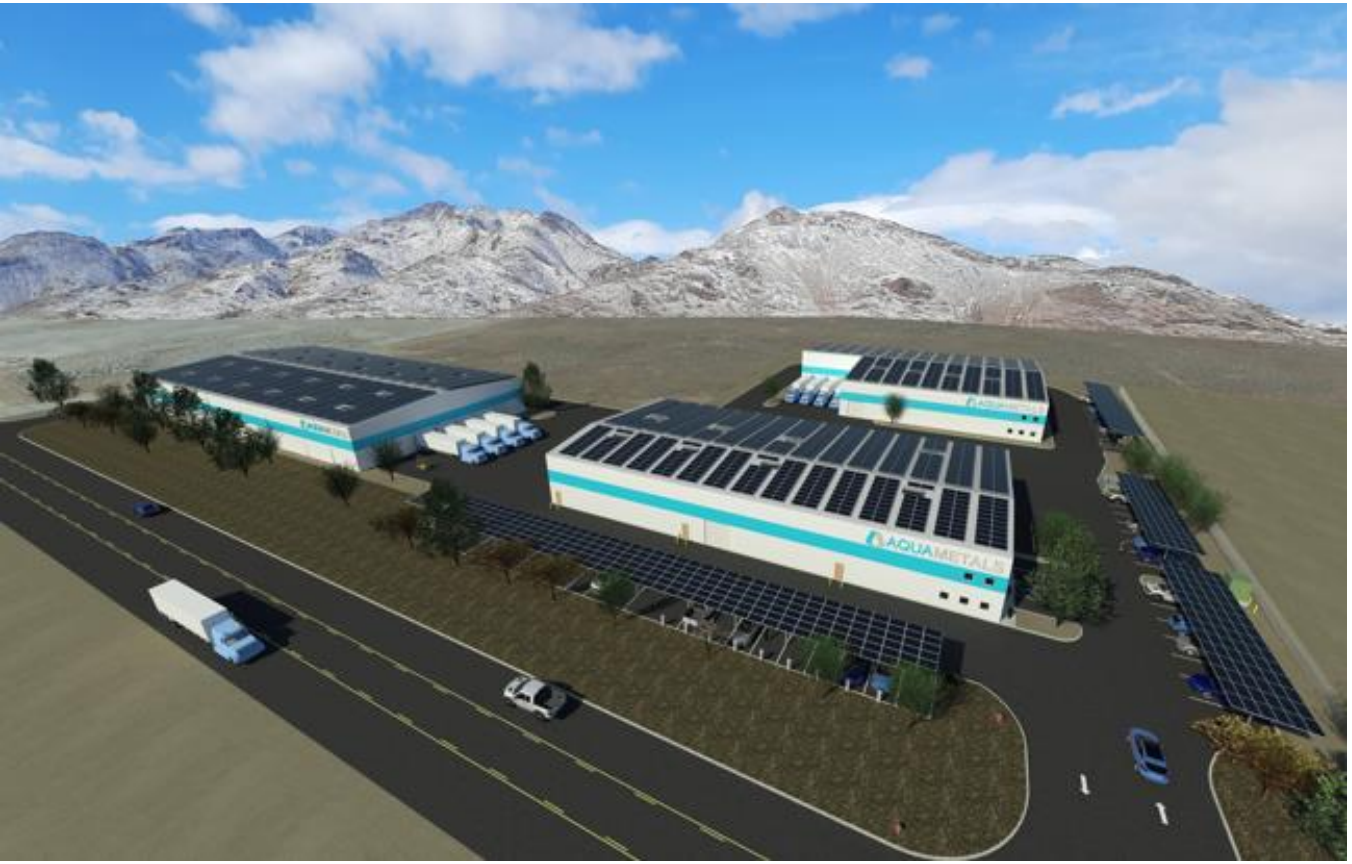
Strategic Partnerships

- Currently in discussions with 10+ EV manufacturers, cell component manufacturers, CAM manufacturers for additional partnerships
- LOI with Dragonfly Energy Corporation to qualify Aqua Metals' lithium hydroxide for use in Dragonfly batteries for its planned solid-state LiB Gigafactory

ACME Partnership Phase 1 Deployment

- TAM $350M annual licensing based on ~3.5M MT of lead paste x $100/MT licensing
- 1st licensee in Taiwan operational
- Pursuing expansion & new licensees

Phased Development of Commercial Scale Plant



- Five-acre campus designed to ultimately process more than 20 million pounds of lithium-ion battery material annually
- Tahoe-Reno Industrial Center campus at the heart of Nevada's lithium battery supply chain
- Rendering of existing building (lower right) and planned future expansions

Financials

$10.9 Million in Working Capital

As of December 31, 2022	
Cash and cash equivalents	**$7.1M**
Lease receivable (current)	**$15.5M**
Quarterly burn rate	**$2.4-2.6M**

Additional Sources of Capital	
Non-refundable LINICO deposit	**$1.25M, paid 10/15/21**
Second non-refundable LINICO deposit	**$2.0M, paid 10/25/22**
LINICO option to purchase facility	**$12.0M, payoff Alpen for net ~$6.0M**

Management

Steve Cotton
Chief Executive Officer, President

Rejoined Aqua Metals in, 2018; Previously served as Chief Commercial Officer

Co-founded Canara, Inc. (formerly Data Power Monitoring and IntelliBatt) in 2001; served as CEO through its sale to a private equity firm in 2012; Then served as Founder and Executive Chairman until 2014.

Led a team to commercialize Sendmail; began his career at Octel Communications through its $1.1B exit to Lucent in 1997

Judd Merrill
Chief Financial Officer

Joined Aqua Metals in 2018 from Klondex Mines Ltd., an international mining company where he was Director of Finance/Accounting, responsible for overseeing the SEC compliance and the management of the Company's $200+ million budget over five subsidiaries.

Spent five years as CFO of Comstock Mining Inc., a publicly traded gold company where he was instrumental in establishing financial modeling and analytics.

Controller at Fronteer Gold Inc. as an assistant controller at Newmont Mining Corp. Began his career at Deloitte & Touche

Ben Taecker
Chief Engineering and Operating Officer

20+ years of experience in manufacturing and operations leadership

Spent six years in progressive leadership roles at the Johnson Controls Inc. Lead Acid Battery Recycling Center

Experience in startups, environmental regulation compliance, process development and operational excellence.

Dave McMurtry
Chief Business Officer

Experienced Silicon Valley high-tech executive; expertise in renewable energy and international markets development

Responsible for leading the team in exploring and strategically pursuing multiple paths to scalable growth for LI AquaRefining.

Global experience includes working in more than 80 countries on five continents.

Previously CEO of the Global Stars Foundation at the Al Dabbagh Group. For the last 25 years, Dave has held multiple executive positions, including with Intuit Inc, and Habitat for Humanity International.

The future is bright for Aqua Metals

Strong competitive advantages with environmentally friendly and cost-effective recycling process that creates high quality metals

$18 Billion addressable market in 2025 for both Pb and Li battery recycling for AquaRefining

Expanding opportunities through partnerships and government grants, e.g., bipartisan Infrastructure Law with $3.1 billion in funding for battery manufacturing and recycling

Ability to sell into all markets and work with any recyclers worldwide

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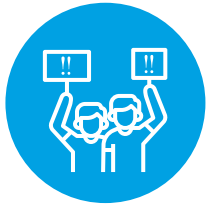

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NASDAQ: AQMS

WWW.AQUAMETALS.COM

Appendix


AQUA
METALS
FINANCIAL
OVERVIEW

Consolidated
Balance Sheets

AQUA METALS, INC.
Consolidated Balance Sheets
(in thousands, except share and per share amounts)

	December 31, 2022	December 31, 2021
ASSETS		
Current assets		
Cash and cash equivalents	$ 7,082	$ 8,137
Accounts receivable	12	269
Lease receivable, current portion	15,527	920
Inventory	278	123
Assets held for sale	47	2,633
Prepaid expenses and other current assets	263	356
Total current assets	23,209	12,438
Non-current assets		
Property and equipment, net	7,343	2,367
Intellectual property, net	461	640
Investment in LINICO	2,000	1,500
Lease receivable, non-current portion	—	15,528
Other assets	489	796
Total non-current assets	10,293	20,831
Total assets	$ 33,502	$ 33,269
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 1,075	$ 685
Accrued liabilities	1,780	3,005
Building purchase deposit, current portion	3,250	—
Lease liability, current portion	307	388
Note payable	5,899	—
Total current liabilities	12,311	4,078
Building purchase deposit, non-current portion	—	1,328
Lease liability, non-current portion	275	330
Total liabilities	12,586	5,736
Commitments and contingencies (see Note 15)		
Stockholders' equity		
Common stock; $0.001 par value; 200,000,000 shares authorized; 79,481,751 and 70,416,552 shares issued and outstanding as of December 31, 2022 and December 31, 2021, respectively	79	70
Additional paid-in capital	220,114	211,309
Accumulated deficit	(199,277)	(183,846)
Total stockholders' equity	20,916	27,533
Total liabilities and stockholders' equity	$ 33,502	$ 33,269

Consolidated
Statement of Operations

AQUA METALS, INC.
Consolidated Statements of Operations
(in thousands, except share and per share amounts)

	Year ended December 31,	
	2022	2021
Product sales	$ 4	$ 173
Operating cost and expense		
Plant operations and clean up	3,959	7,017
Research and development cost	1,813	933
General and administrative expense	9,815	9,688
Total operating expense	15,587	17,638
Loss from operations	(15,583)	(17,465)
Other income and expense		
Insurance proceeds net of related expenses	—	4,794
Impairment expense	(579)	(545)
PPP loan forgiveness	—	332
Gain (loss) on disposal of property and equipment	596	(5,665)
Interest expense	(125)	(21)
Interest and other income	262	379
Total other income (expense), net	154	(726)
Loss before income tax expense	(15,429)	(18,191)
Income tax expense	(2)	(2)
Net loss	$ (15,431)	$ (18,193)
Weighted average shares outstanding, basic and diluted	75,811,034	70,002,180
Basic and diluted net loss per share	$ (0.20)	$ (0.26)

Consolidated
Statement of Cash Flows

AQUA METALS, INC.
Consolidated Statements of Cash Flows
(in thousands)

	Year ended December 31,	
	2022	2021
Cash flows from operating activities:		
Net loss	$ (15,431)	$ (18,193)
Reconciliation of net loss to net cash used in operating activities		
Depreciation	882	1,140
Amortization of intellectual property	179	180
Fair value of common stock issued for consulting services	19	225
Stock-based compensation	2,255	2,201
Fair value of common stock issued for director fees	21	—
Amortization of deferred financing costs	13	—
Inventory NRV adjustment	—	146
Loss (gain) on disposal of property and equipment	(596)	5,665
Forgiveness of PPP loan	—	(332)
Impairment of equipment	579	545
Changes in operating assets and liabilities		
Accounts receivable	120	(237)
Inventory	(155)	822
Prepaid expenses and other current assets	93	345
Accounts payable	22	8
Accrued liabilities	1,428	378
Other assets and liabilities	(497)	(508)
Net cash used in operating activities	(11,068)	(7,615)
Cash flows from investing activities:		
Purchases of property and equipment	(4,771)	(2,350)
Proceeds from sale of equipment	1,760	275
Equipment deposits and other assets	91	79
Investment in LINICO	(500)	(232)
Net cash used in investing activities	(3,420)	(2,228)
Cash flows from financing activities:		
Proceeds from note payable	5,886	—
Lease of building	920	553
Proceeds from exercise of stock options	—	728
Proceeds from ATM, net	6,519	10,166
Proceeds from employee stock purchase plan	108	—
Net cash provided by financing activities	13,433	11,447
Net increase (decrease) in cash and cash equivalents	(1,055)	1,604
Cash and cash equivalents at beginning of period	8,137	6,533
Cash and cash equivalents at end of period	$ 7,082	$ 8,137