

Aqualithium

investor
deck

opportunity

the opportunity.

Demand for lithium has increased by 72% in the past 4 years with the price of lithium increasing 496.7% in 2021. It is forecast that in the next 8 years demand will increase by a further 317%. This is driven by the global move towards battery powered vehicles and the growing requirement for new energy storage methods.



72%

Increase in demand for lithium since 2018
(Statista - 2021)

496.7%

Lithium price increase in 2021
(Trading Economics - 2021)

317%

Demand is forecast to increase by 2030
(Statista - 2021)

Problem

Existing land based reserves of lithium will be exhausted in the next twenty years at current rates of consumption.

Manufacturers of batteries for electric vehicles, whose preferred battery metal is lithium, need to find a long term, sustainable solution to this issue.

Solution

Aqualithium's innovative solution to commercially extract lithium from seawater is at the forefront of this technology race.

value proposition

the value proposition.

Improved separation technology unlocks lithium from previously untapped resources.

Research and process engineering have shown how to reduce the cost of separation.

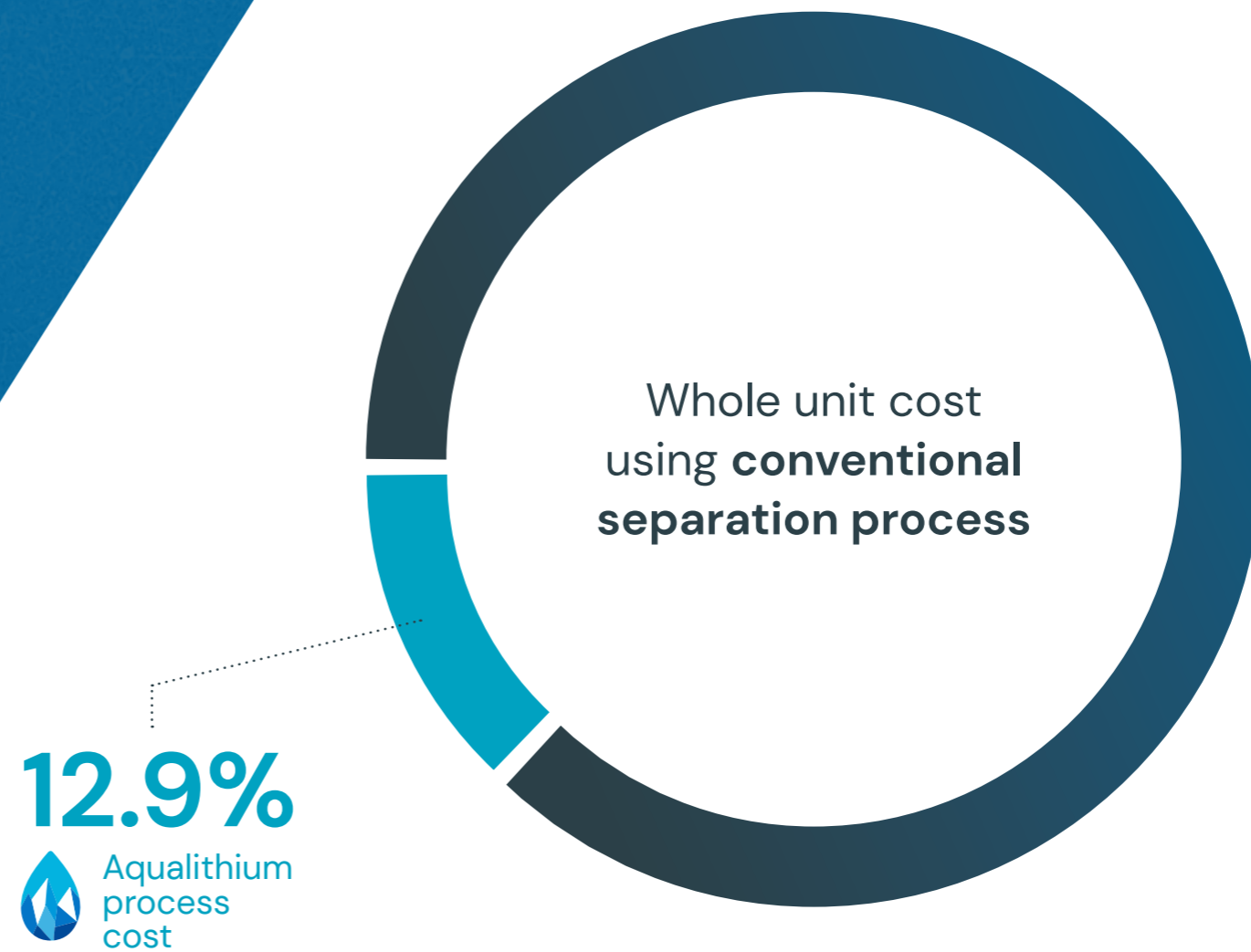
87.1%

Aqualithium's process reduces separation cost. Further optimisation is possible.

Aqualithium's partner, Bath University, have successfully extracted lithium from seawater in a laboratory at their Department of Chemical Engineering.

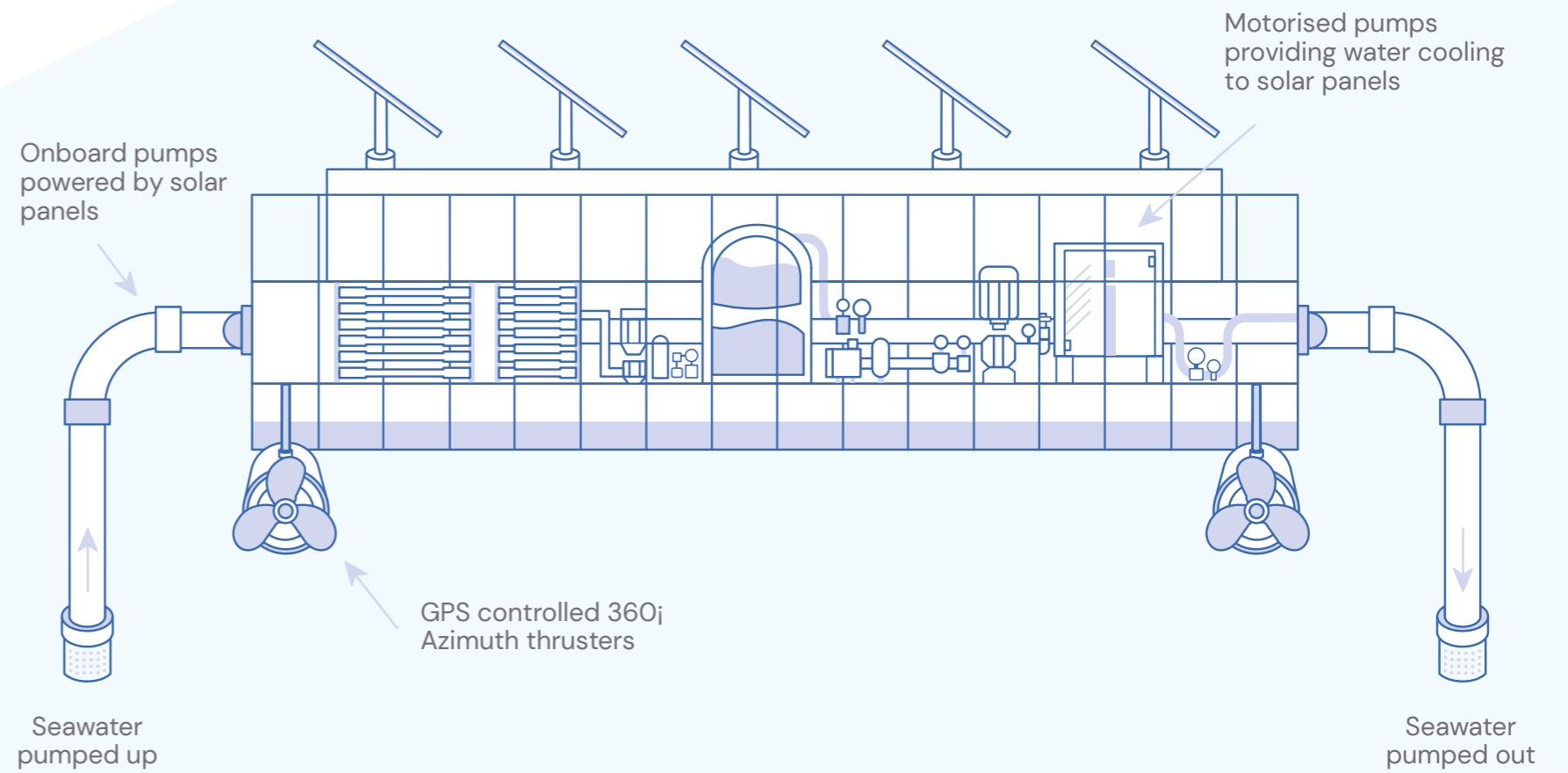
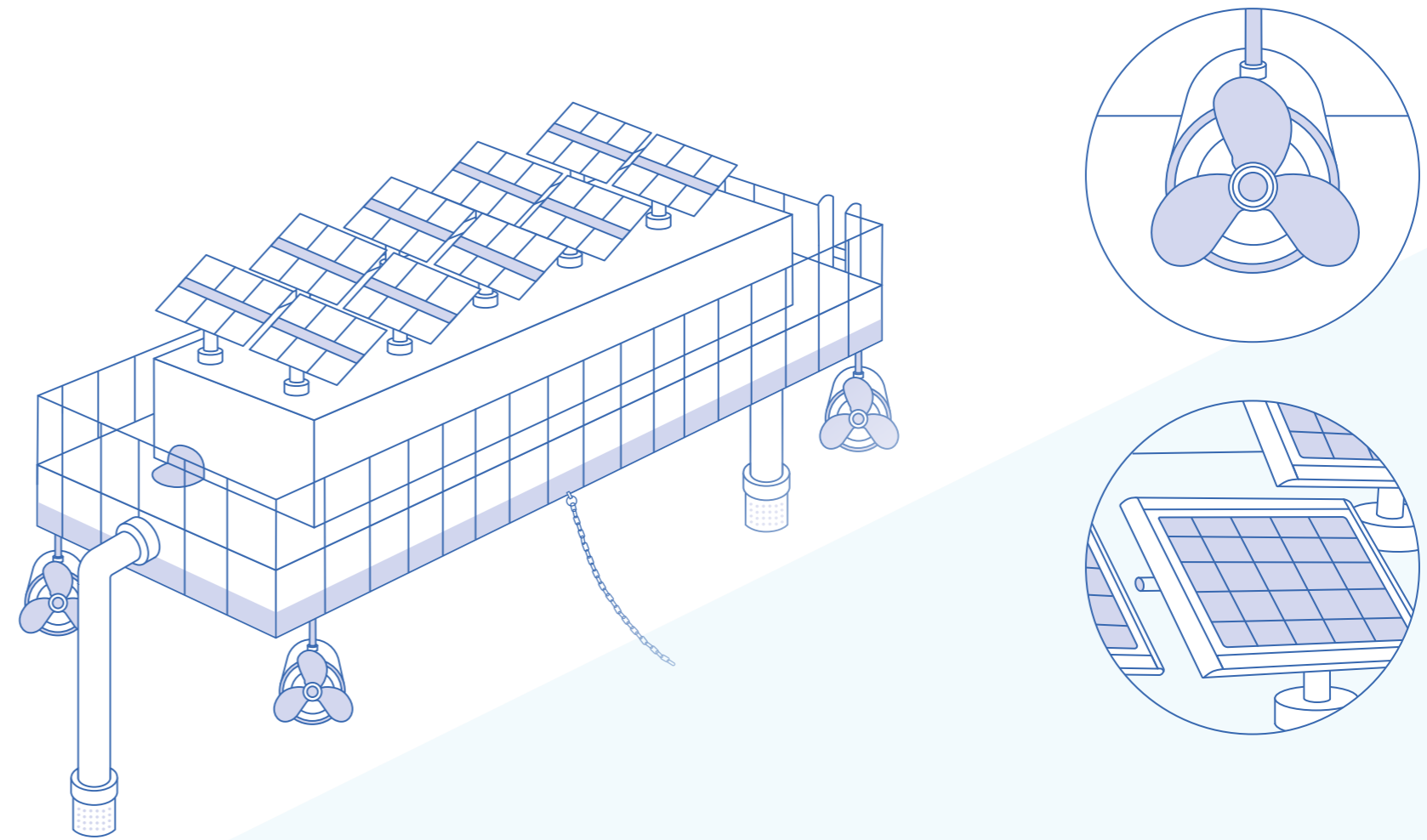
Bath University's innovative process combines adsorption separation and nano-filtration membranes.

Lithium separation cost reduction



The Aqualithium Harvester (patent applied for number 2002260.4)

The Aqualithium Harvester will be a world first; a floating solar powered lithium extraction system, efficiently collecting lithium from an endless supply in a sustainable, ecologically and environmentally sound way that produces no seaborne waste product and uses no fossil fuel power.



A group of eminent researchers led by a team with commercial acumen, experience and a proven track record for project delivery.



Sir Rodney Walker
Chairman
Seasoned Campaigner



David Oddie
CEO
Experienced CEO



Tom Black
Founder Director
Filtration expert



John Jeffrey
Director
Troubleshooting
Business mentor



Professor Semali Perera
Univ. Bath
Leading expert in
nano-filtration



Dr. Yannis Wenk
Univ. Bath
Leading expert in
extraction from liquids



Dr. Ming Xie
Univ. Bath
Leading expert in
membranes



Geoff Turrall
NED
Former CEO Porsche

the market.

The demand for Aqualithium's technological knowhow will come from companies producing lithium carbonate and lithium hydroxide.

Key Metrics

\$37.4 billion

The lithium-ion battery market worth in 2019

18%

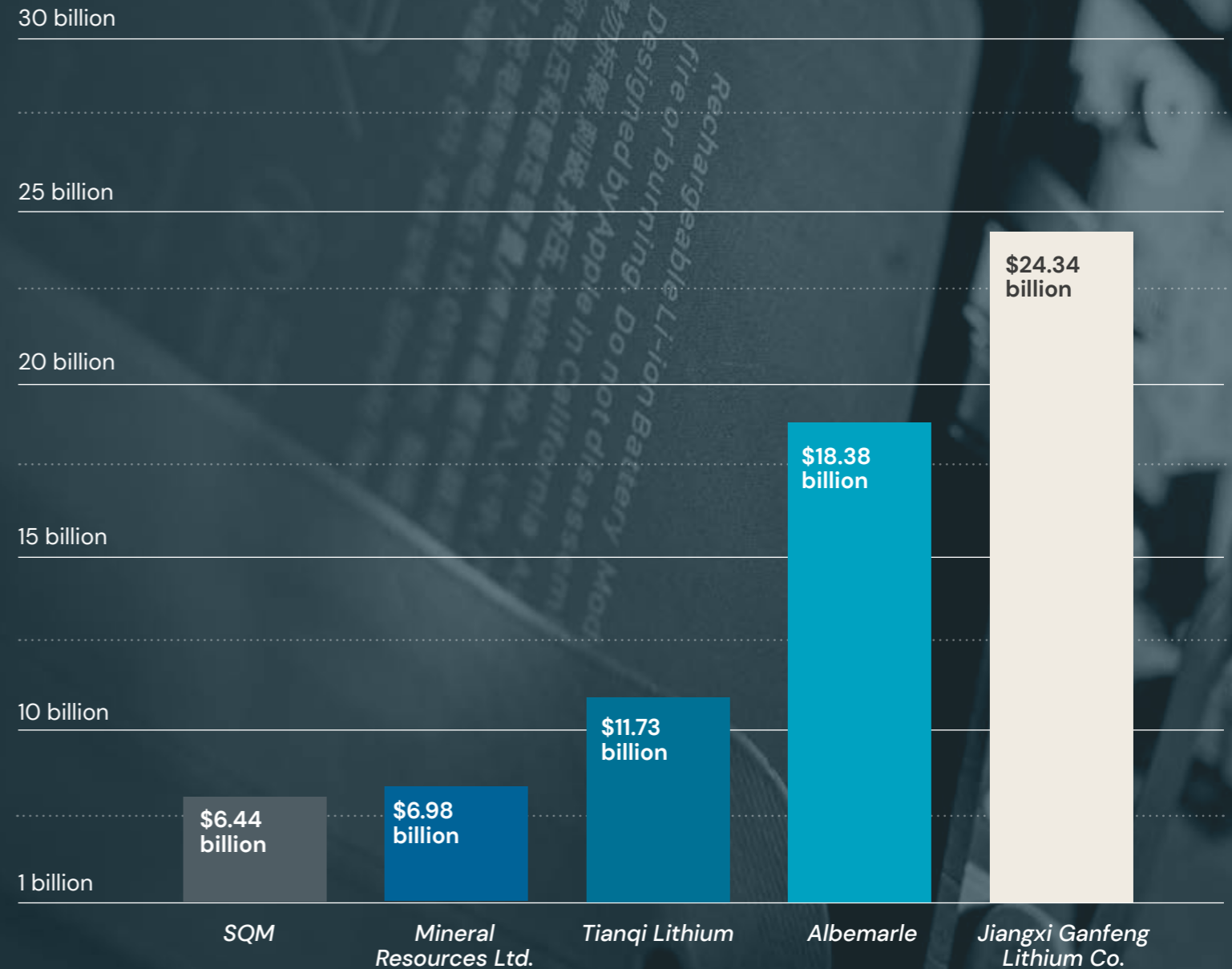
CAGR – Compound annual growth rate. 2020 – 2027

\$129.3 billion

Lithium-Ion Battery Market forecasted to reach by 2027

(Business wire – 2020)

market cap (\$)



Companies producing lithium carbonate and lithium hydroxide
(Mining Global- 2021)

the business model.



Aqualithium is...

a research partnership with a technology driven approach.



Preliminary engineering has yielded a viable process design.



Comprehensive availability of grant funding support.



Aqualithium are the leading collaboration in the field of aqueous lithium extraction.



Proprietary Technology.



Ongoing research is advancing commercially viable methods of extraction.



Comprehensive feasibility study results are published.



Patents already filed.

competitors and customers.

Producers of lithium are potential customers rather than competitors. Aqualithium's revenue will come from the sale or licensing of know-how.

The efficiency of Aqualithium's separation process is the valuable commodity.

Samco

A US based company specialising in process separation and filtration solutions to a diverse range of industries.

Lilac

A US based company with recent investment from Bill Gates and Jeff Bezos aiming to build a facility next to a geothermal power plant with the aim of extracting lithium from the wastewater.

Britishvolt

A U.K. base company currently building the first lithium battery giga factory in the North East of England.

Cornish Lithium

A UK based company who are currently prospecting in South West England with the aim of discovering and extracting lithium from underground brines. They are also working with Geothermal Engineering Ltd , a UK company deep drilling for geothermal waters capable of providing the hot water required by a geothermal power plant.

Since Aqualithium's inception in September 2019, they have :

- ✓ Accurately identified a need.
- ✓ Assembled a top team.
- ✓ Partnered with credible research partners.
- ✓ Identified technical and financial resources.
- ✓ Engineering research commissioned.
- ✓ Process design produced.
- ✓ Filed patents.
- ✓ Attracted attention in the market.
- ✓ Established credibility.
- ✓ Worked in partnership with the Centre for Process Innovation.
- ✓ Gained EIS tax accreditation.
- ✓ Extracted lithium from sea water in a laboratory environment.
- ✓ Applied for Innovation Grants.



the investment proposition.

First round of funding allocation:

Aqualithium Harvester Development

- Research and development of Aqualithium Harvester.
- Creation of AutoCAD model of Aqualithium Harvester.
- Creation of 3D printed working desktop model.
- DWG engineering drawings of full scale Aqualithium Harvester.
- Manufacture of scale model of Aqualithium Harvester.
- Patent filing.

28% - Overheads

- Office costs.
- Staff wages.
- Director's remuneration.
- Business operating costs.
- International patent publication.
- Insurance.

65% - Research

- Research and development of filtration methods by University of Bath.
- Proof of concept study on extraction methods.
- Extract lithium carbonate from sea water in laboratory environment.
- Absorbent materials regeneration and membrane fouling study.
- Membrane and nano filtration manufacture.
- Patent filing.

7% - Other

- Travel costs.
- Other expenses incurred.

£500k

Investment Target

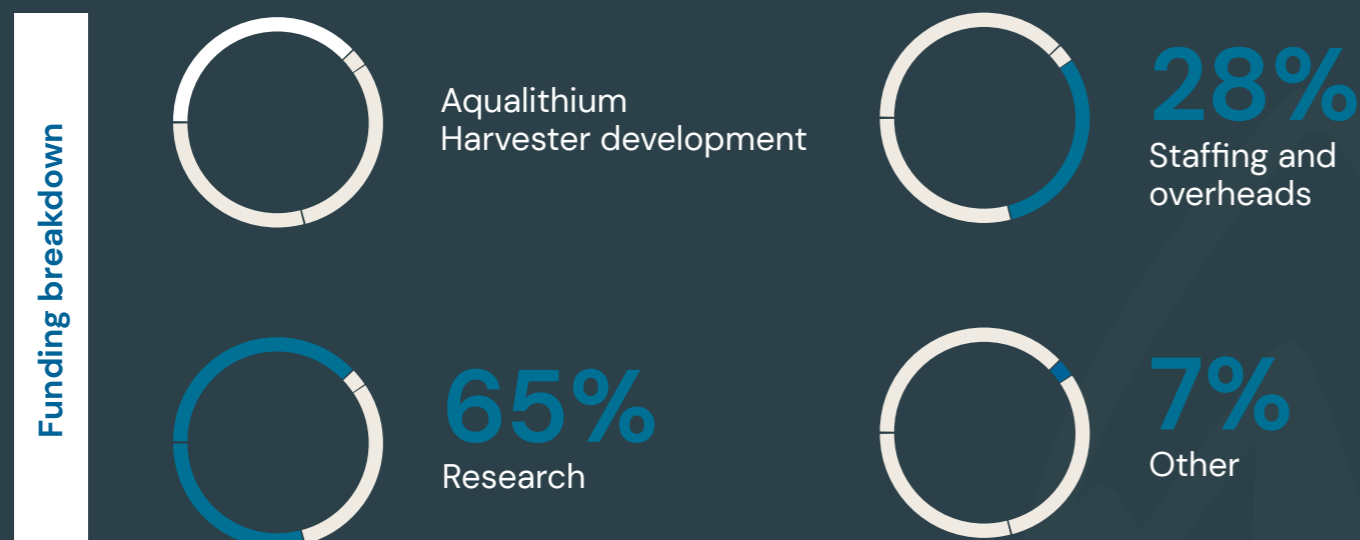
+120x

Forecast return on profit for investors

4/6 years

Planned exit via trade sale

EIS tax relief



key milestones

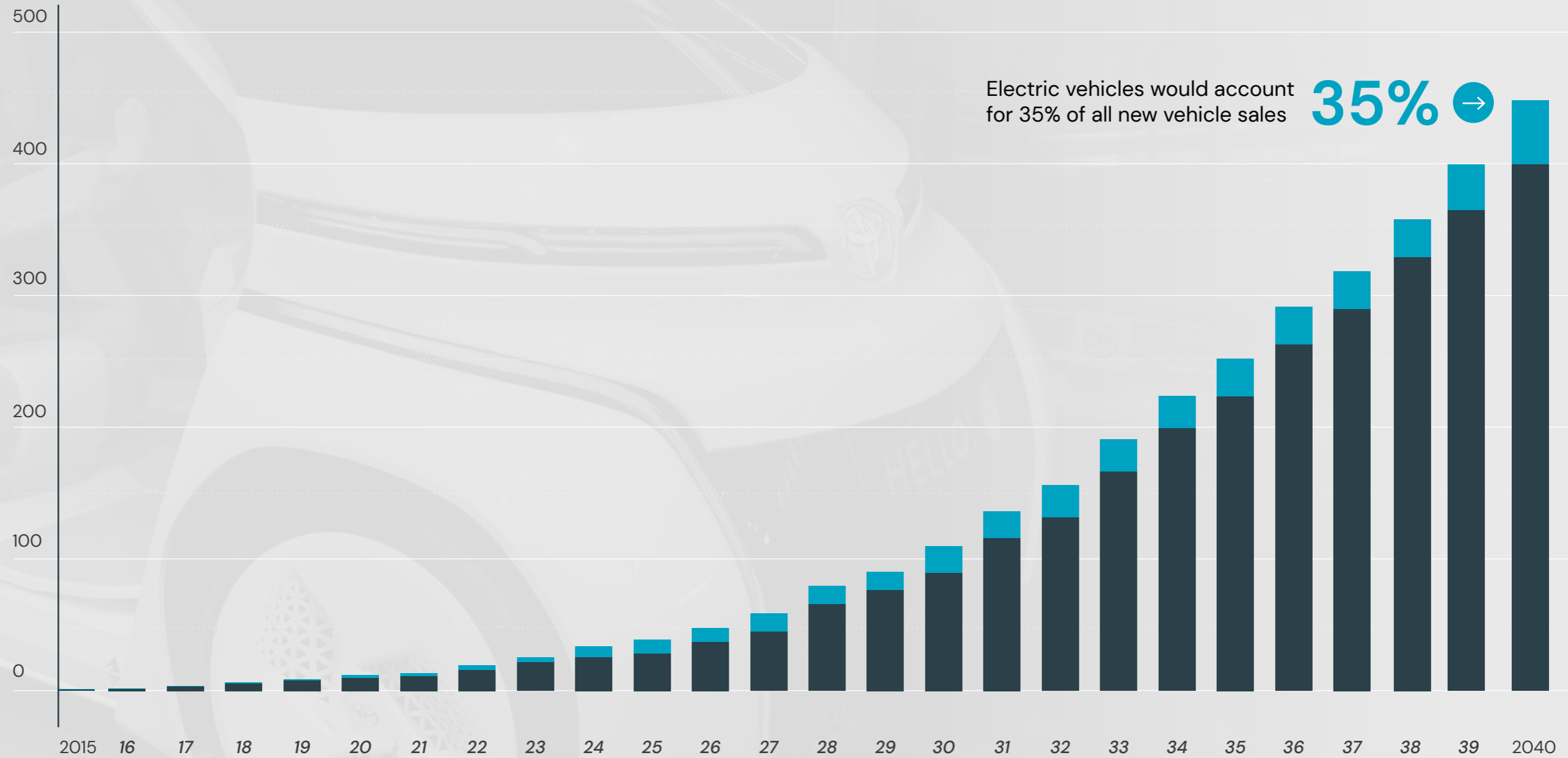
The rise of electric cars

By 2022 electric vehicles will cost the same as their internal combustion counterparts.

(Bloomberg - 2021)

Projected annual sales Cumulative sales

Per million vehicles



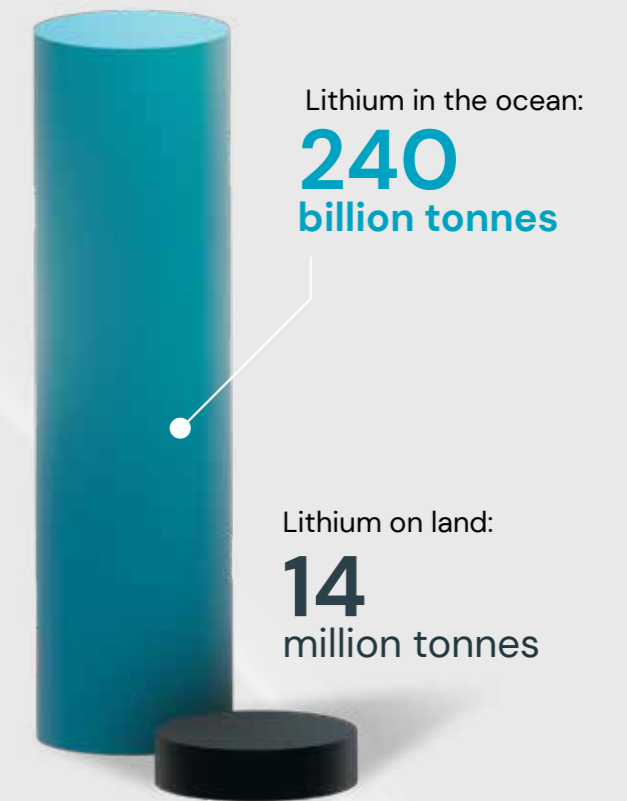
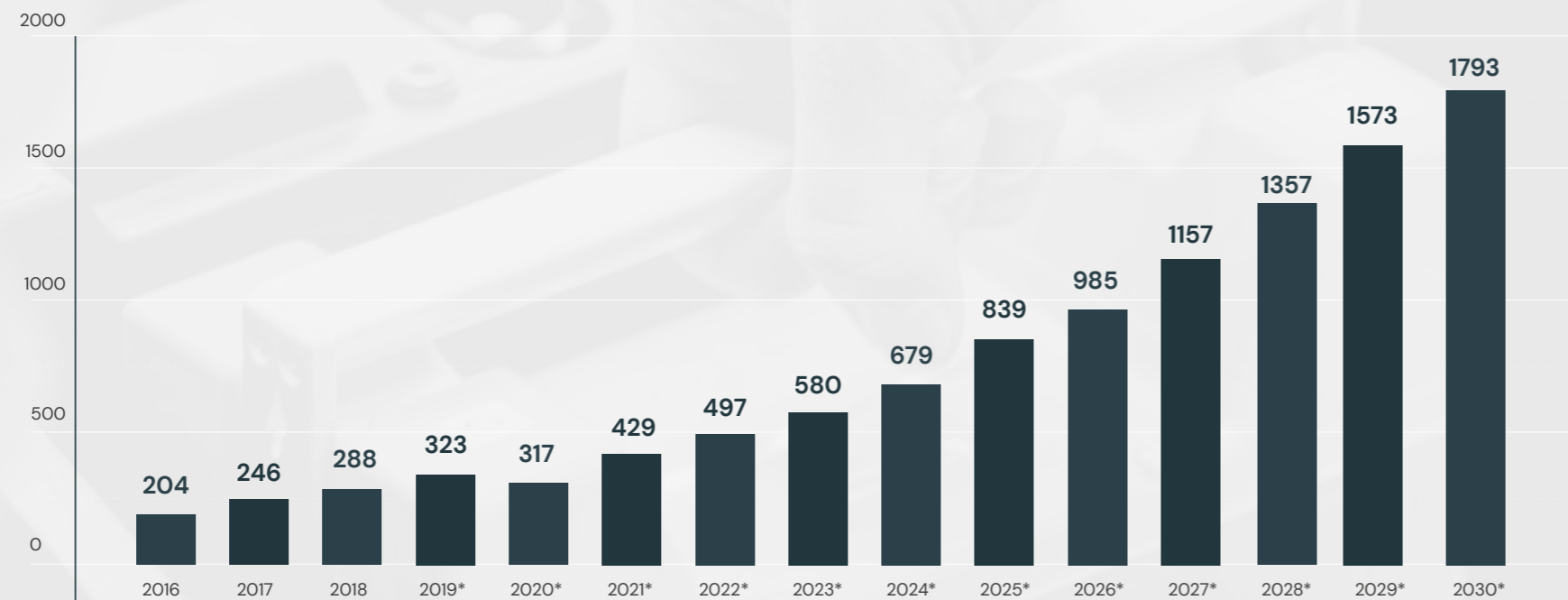
key metrics. milestones

The demand for lithium carbonate

By 2030* the predicated demand for lithium carbonate will be over 1700 metric tonnes per year.

(Statista - 2021)

Demand in metric tonnes



Lithium in the ocean compared to land based lithium

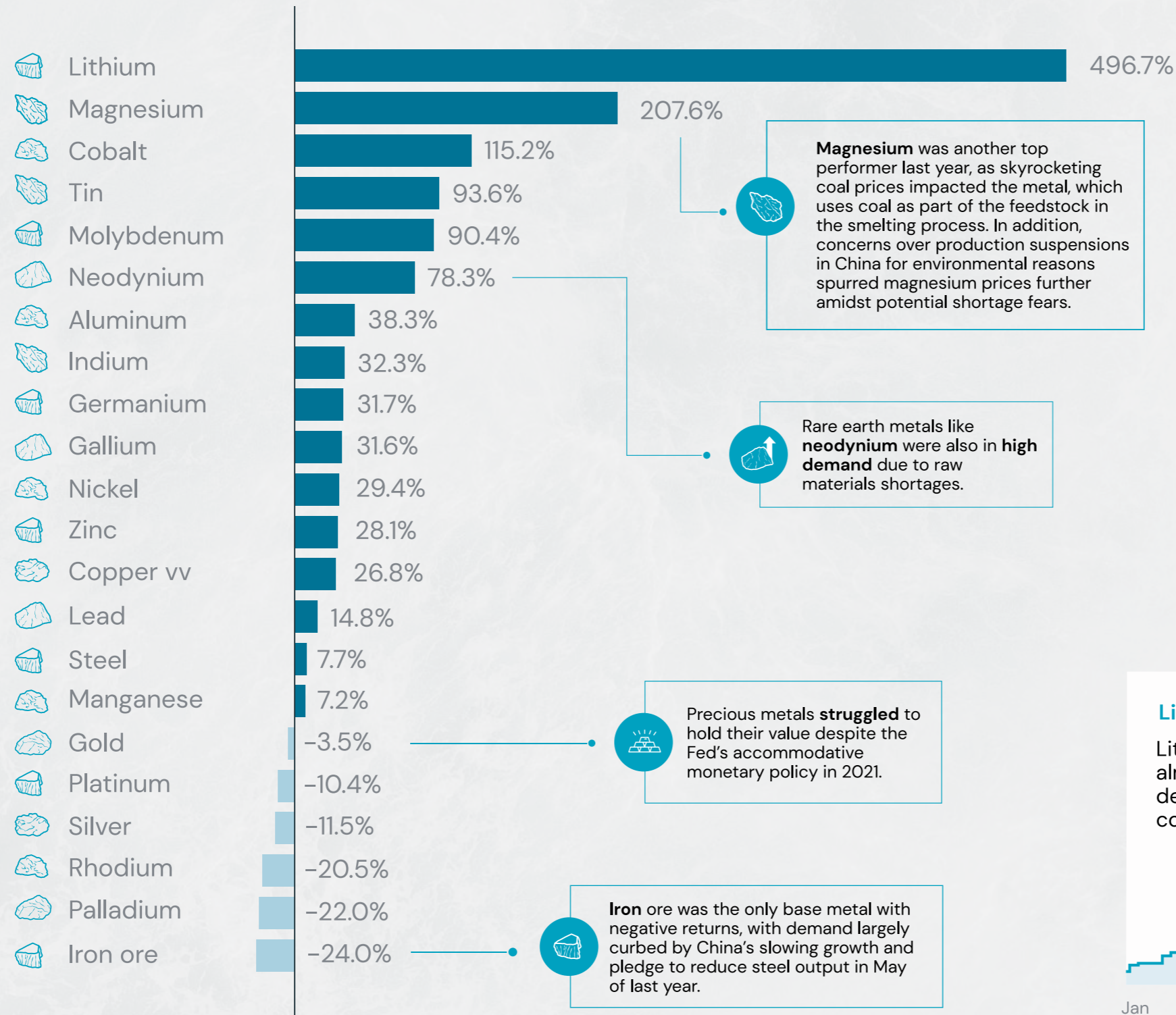
(U.S. Geological Survey - 2021)

(Science org - 2021)

key milestones

How metal prices performed in 2021

(Tradingeconomics- 2020)



Magnesium was another top performer last year, as skyrocketing coal prices impacted the metal, which uses coal as part of the feedstock in the smelting process. In addition, concerns over production suspensions in China for environmental reasons spurred magnesium prices further amidst potential shortage fears.

Rare earth metals like **neodymium** were also in **high demand** due to raw materials shortages.

Precious metals **struggled** to hold their value despite the Fed's accommodative monetary policy in 2021.

Iron ore was the only base metal with negative returns, with demand largely curbed by China's slowing growth and pledge to reduce steel output in May of last year.

As demand for **electric vehicles** boomed, prices for battery metals like **lithium and cobalt** skyrocketed.

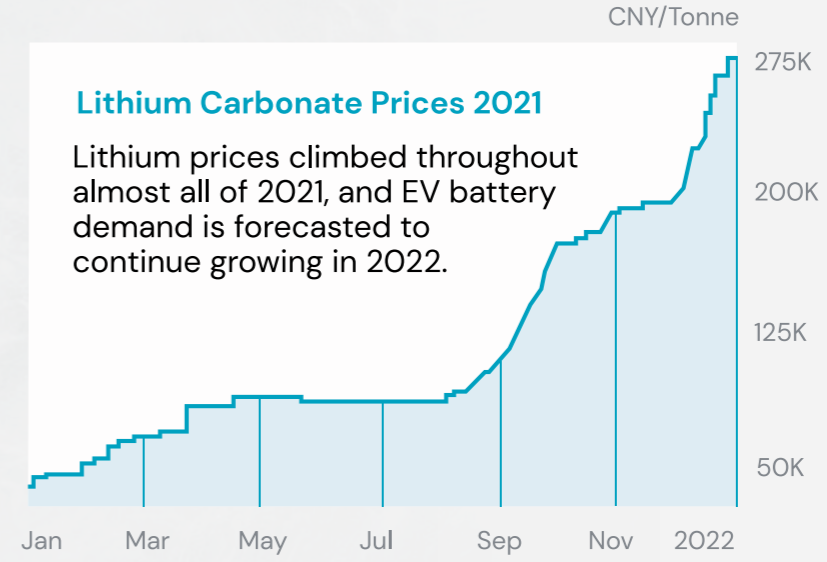
Lithium and Other EV Metals Outperform

Last year saw major automakers like Ford and GM commit themselves to all new car sales being zero emission by 2040, spurring an 80% rise in electric vehicle sales in 2021.

As a result, essential battery metals like lithium, cobalt, lead, and nickel were all in high demand as automakers secured these essential materials for their battery production.

The start of 2022 has also seen more positive catalysts for nickel specifically, as Tesla secured a supply deal with Talon Metals Corp. for 75,000 tonnes of nickel concentrate over six years.

Niccolo Conte
<https://lnkd.in/eNVBxkAv>





Aqualithium

The Kennels Suite
Nostell Business Park,
Wakefield, UK.
WF4 1AB

Tel: 07879 559100
info@aqualithium.com
www.aqualithium.com