RNS Number : 1425T
Gelion PLC
16 March 2023

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Gelion plc

("Gelion", "the Group" or the "Company")

Interim results to 31 December 2022

Gelion plc (AIM: GELN), the Anglo-Australian energy storage innovator, is pleased to announce its interim results for the six months ended 31 December 2022.

Operational / strategic progress

- Achieved significant milestone with the commissioning of our pilot manufacturing plant at Battery Energy Power Solutions ('Battery Energy') in Western Sydney, Australia
- First industrial production of Gelion's zinc-bromide battery technology
- Appointment of John Wood as the new CEO, a battery, clean-tech and innovation specialist, bringing over 30 years of significant commercial and manufacturing expertise and C-Suite experience
- Launched the zinc-bromide match to market exercise focussed on the identification of applications that are best suited to our technology in the near-term
- Demonstrated progress towards success on both half-cells and our proprietary electrolyte based on our LiSiS IP that is intended to be compatible with variety of anode materials, including graphitic, silicon and lithium metal-based. LiSiS batteries offer the potential to produce lower cost, safer batteries with double the range of existing electric vehicles
- Developed and implemented a more sophisticated battery management system ("BMS") for zinc-bromide batteries, designed to allow for high accuracy measurements
- Initiated development of a robust BMS software to manage multi-string systems and provide reliable data for real-time data analysis
- Advanced the development of a LiSiS based technology that is intended to be compatible with variety of anode materials, including graphitic, silicon and lithium metal-based

Financial Highlights

- The Company remains well capitalised with Cash and cash equivalents (incl. term deposits) at period end of £14.4m (June 22: £17.0m)
- Debt free balance sheet
- Adjusted EBITDA loss for the period: £4.4m (H1 FY22 EBITDA loss: £2.3m) indicative of the investments made to develop and progress on the path towards commercialisation
- Our FY23 guidance is largely in line with our expectations at the time of the IPO

Post Period Highlights

Acciona trial

- Manufactured 1,200 zinc-bromide cells for the Acciona trial from our pilot manufacturing line.
- BMS is currently being subject to internal testing and validation to occur in realistic on-site environment prior to trial start.
- Completed the zinc-bromide match to market exercise with opportunities identified that have potential for strong competitive advantage in many lead acid applications, particularly within the fast discharge space e.g., Uninterruptible Power Supply (UPS) for data centres and telecommunications, ESS and other stationery applications etc.

Lithium-Silicon-Sulfur

- Acquired world leading intellectual property ("IP") portfolio from Johnson Matthey:
  - Contains over 450 patents granted, based on 82 patent families, which strengthens our position in the (LiSiS) market and accelerate technology development, fast-tracking commercialisation pathways
  - This acquisition strongly complements current LiSiS technological advancements and its IP portfolio. The combination of Gelion's existing and the new IP portfolio has the potential to facilitate and fast track technological advancements to deliver ground-breaking high energy density lithium technology to the market up to 5 years earlier that the current industry estimates
  - Sulfur cathode technologies promise exceptional performance and market desirability. The combination of the Johnson Matthey IP portfolio with Gelion's incumbent solutions is intended to provide paths to address the primary challenges to establish durability and place Gelion at the forefront of the competitive lithium-sulfur battery space
- Building up on the Johnson Matthey acquisition, Gelion acquired the IP assets in relation to sulfur cathodes, electrolytes and additives from the University of Sydney by converting the existing exclusive licence, providing Gelion with greater control of the entire IP around LiSiS.
- Gelion was selected for the "Supercharge Australia Innovation Challenge" to support lithium battery innovation and capture more value from the lithium battery supply chain. Gelion aims to use the initiative to extend visibility and understanding of the strength, relevance, and ultimate potential of its LiSiS initiative and to help further develop important connections inside the Australian and Global supply chain.

Dr Steve Mahon, Non-Executive Chairman commented: "H1 FY23 was an exciting period of development for Gelion, during which we welcomed CEO, John Wood. Since his arrival, John has deployed his sector experience working alongside our experienced team further refining our strategy in order to deliver long term, sustainable growth.

"Our post-period end IP acquisitions in the LiSiS space are incredibly exciting and give us a more robust platform from which to develop Performance Additives, while the production of around 1,200 zinc-bromide batteries is a clear sign of the progress being made as we work towards bringing our products to market.

"We remain committed to creating and delivering long-term value to our shareholders. Notwithstanding, the unprecedented macro-economic environment seen in 2022, Gelion's growth drivers remain strong. Clean technologies will be fundamental to the transition to a green economy and we are well placed to service this growing market. We continue along our path to commerciality and look to the future with confidence, with an experienced management team, energised workforce, clearly defined market opportunity and a product set capable of making a tangible difference."

John Wood, Chief Executive Officer commented:"It has been very encouraging to work with the Gelion team to develop our planning toward realizing the potential of both of our technology streams for our shareholders and other stakeholders.

Recognizing the strength of opportunity opened by the work that has been done toward unlocking paths to high performance, safety, and low cost that have been opened by the Gelion Lithium Silicon Sulfur work we acted quickly to strengthen our program and protection with the Johnson Matthey IP acquisition following with the IP acquisition from the University of Sydney.

On the zinc-bromide side, the early production has been very helpful in defining a work plan toward establishing the best match to market and the areas of focus to achieve before investing in scaling. We have a talented team and they have exhibited a strong willingness to work at the combined levels of creativity and rigour needed for success in advanced innovation".

Investor presentation

John Wood, CEO, Amit Gupta, CFO and Thomas Maschmeyer, Founder and Non-Executive Director, will host an interim results retail investor presentation via the Investor Meet Company platform on 23 March 2023 at 9.30am GMT. The presentation is open to all existing and potential shareholders and registration can be completed via the following link: https://www.investormeetcompany.com/gelion-plc/register-investor

Interim Report

Copies of the Interim Report can be viewed and downloaded from the Company's website: https://gelion.com/investors/documents-notices/.

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About Gelion plc

Gelion ("gel: ion") is a global renewable-energy storage innovator who supports the transition to a sustainable economy while delivering value for its customers and investors by designing and manufacturing the outstanding zinc-bromide batteries for stationary energy storage and Lithium Sulfur and Lithium Silicon Sulfur technologies for mobile battery applications.

Mobile storage - Tomorrow's transport systems will rely on mobile renewable energy. Gelion is developing sulfur cathode, electrolyte, and additive technologies with the aim of improving the safety, longevity and energy density of lithium-based batteries for mobile applications. Using nanotechnology, Gelion's lithium-silicon-sulfur additives will help power the EV and e-aviation markets.

Stationary storage - Gelion Endure: the sustainable energy storage solution.
Gelion has developed patented technology for a breakthrough zinc-bromide battery to support the transition to a carbon neutral economy by 2050. The technology is being developed with the goal of establishing Gelion Zinc Bromide as a logical participant in the ecosystem of suppliers, manufacturers and customers surrounding lead acid technology.

Gelion's zinc-bromide gel battery uses non-flow technology, which is scalable, can deliver 100% depth of discharge and has potential for higher temperature tolerance and longer duration discharge than lead-acid batteries.

Gelion was spun-out from the University of Sydney in 2015 by Professor Thomas Maschmeyer, Fellow of the Australian Academy of Science and recipient of the Australian Prime Minister's Prize for Innovation 2020, that country's highest honour for scientific entrepreneurship.

The Company's ESG credentials are strongly aligned to six of the UN's 17 Sustainable Development Goals.
Gelion's shares are listed on the AIM market of the London Stock Exchange and it received the Green Economy Mark at IPO in November 2021 recognising its commitment to energy transition.

www.gelion.com

CEO Statement

I am pleased to report on my first interim results statement as CEO, since joining the very talented team at Gelion in

I am pleased to report on my first interim results statement as CEO, since joining the very talented team at Gelion in December 2022.

As I outlined on appointment, the energy storage industry will perform a crucial role in supporting the global renewable energy transition. Gelion's core strategy remains focussed on developing the Company to be a global contender in the energy storage market while delivering real-world impact through our technology.

The last few months have reinforced my view that Gelion offers exceptional technology solutions that will ensure the Company remains a force at the forefront of this fast-moving and highly competitive space. Our focus is to refine and deliver these breakthrough technologies in a form suitable for our large target markets.

I am pleased to report that we have achieved two key milestones with the successful completion of our first pilot production of our zinc-bromide cells and significant advancements in the performance of our performance additive technology.

A match-to-market study for our zinc-bromide technology generated valuable data, which we will use to further develop our technology to strategically position our batteries with a competitive advantage for several core lead-acid applications. The end market is vast, but it is critical that we deliver a robust and proven product that meets customer requirements in the target markets identified.

While Gelion has made significant advancements in our sulfur cathode development over the last few months, the recent strategic acquisition of the two intellectual property portfolios, from Johnson Matthey, and the transfer of previously licensed IP from the University of Sydney, will provide greater flexibility to realise the full potential of our technology within the LiSiS space. We view this space as being the primary business unit for value growth in the near term. These acquisitions complement and strengthen Gelion's position within the LiSiS space and provide significant opportunities to rapidly accelerate the development toward achieving highly important industry goals of gravimetric energy density, safety, and lower cost ahead of competing efforts. They will also help to develop a moat of protection around our work as its importance progressively becomes more broadly recognised.

With a view to long term flexibility, market value and business prospects, Gelion is designing our cell technology which is intended to be compatible with a variety of anode technologies, including graphitic, silicon and lithium metal-based anodes.

Gelion has achieved clear operational progress in the first half of the financial year, building on momentum from the prior year. We continue to experience strong customer interest in our technology and continue to develop a strong partnership base that will assist in fast-tracking our path to commercialisation.

I am encouraged by the progress we have made over the last few months and am confident that the business plans will deliver long-term, sustainable growth for the benefit of our shareholders.

Our Technology

Our technology will help power the transition from fossil fuels to renewable energy. Gelion is currently developing battery technologies that will revolutionise the lead-acid and lithium energy storage markets.

Zinc-Bromide Technology

Our zinc-bromide technology aims to provide a viable alternative to current lead-acid batteries, which will solve key limitations of these current technologies. Our technology offers a path to competitive advantage in the lead-acid battery market by providing a safer, more sustainable and more durable solution to traditional lead-acid batteries.

Gelion's zinc-bromide gel battery uses non-flow technology, which is scalable, can deliver 100% depth-of-discharge with no loss of function or damage to the battery, and is tolerant of temperature extremes.

Gelion's zinc-bromide technology has been designed with safety in mind. Our chemistry is fire resistant and has been engineered to minimise the risk of thermal runaway, even under deliberate fault scenarios.

Gelion's battery is distinct from other zinc energy storage technologies in the market, utilising our proprietary gel technology. Our technology is well-suited to, and is highly competitive for adaption to, high-power discharge applications currently serviced by the lead-acid market.

Lithium-Silicon-Sulfur (LiSiS) Technology

Gelion aims to transform the energy storage industry through its development of sustainable, high-performance LiSiS batteries that offer a competitive advantage over traditional lithium-ion technologies by providing a safer, cost-effective alternative with superior energy density.

The inherent features of sulfur-based chemistries provide significant improvements with regards to safety compared to current technologies. The mechanism by which our batteries operate reduces the risk of thermal runaway and catastrophic failure, even in the event of a short-circuit.

There is a strong push to continue to develop technologies with higher energy densities to continue to drive down the price, weight, and size of lithium-based battery packs. With the theoretical gravimetric energy density of LiSiS technologies predicted to be more than double of that achievable with existing Nickel Manganese Cobalt ("NMC") graphite-based lithium batteries.[1] Our LiSiS technology is at the cutting edge of next-generation lithium energy storage solutions.

Our Strategy

The global battery market is anticipated to increase five-fold over the next ten years. The lead-acid- and lithium-based batteries remain key players, comprising around 90% of the total global energy storage market. Lithium-ion batteries are forecast to reach a value of US$110 billion (~1.3TWh Capacity) by 2030, whilst the lead-acid market is anticipated to maintain its strong position with a projected market value of US$49 Billion (480GWh) in 2030[2].

Our strategy is to target both markets with products that are both commercially viable, to increase shareholder value, and competitive against current incumbent technologies.

Gelion's core strategy remains committed to growing the Company to be a leading, renowned innovator of cutting-edge commercial solutions for the global energy storage market to facilitate the successful transition to a sustainable economy. Gelion is focussed on the development of the next generation technologies to ensure that Gelion will be a force at the forefront of energy storage technologies and can deliver long-term value to our investors.

Zinc-Bromide Technology

The global push to rapidly decarbonise the electricity sector to meet net-zero targets has led to a significant acceleration in demand for stationary, long-duration energy storage (LDES) solutions. Gelion had initially focused on penetrating this market with our zinc-bromide technology. However, this market is currently dominated by Lithium technologies that are well-entrenched. In-depth assessment has indicated that this would be a difficult market for Gelion to break into at this stage. It is expected that there will be a general reluctance by companies to use relatively untried technologies for large-scale long-duration energy storage applications, beyond initial pilot testing. Many companies are looking for solutions that can guarantee lifetimes of 10-20 years or more. While Gelion has performed rigorous internal testing of our batteries,

the batteries are yet to be tested in real-life applications beyond the small pilot / demonstration stage.

Without this proven commercial field performance, we believe the acceptance of our technology could be limited for the LDES space in the short term and it is, therefore, not prudent to focus on this sector for commercialisation for the initial product launch. As a result, the Group has made the decision to pivot towards alternative storage applications that will enable us to first establish our technology within the market before exploring potential LDES applications. This approach will guarantee the viability of the Group into the future and ensure that we can deliver long-term value to our shareholders.

As a result of this pivot, Gelion initiated a rigorous match-to-market exercise to identify key applications where our technology can readily penetrate and disrupt the current markets. This process confirmed that there is a greater opportunity for zinc-bromide technologies to successful penetrate non-LDES applications and identified the competitive advantage of our technology for high-discharge applications for several target applications e.g. Uninterruptible Power Supply (UPS) for data centres and telecommunications, ESS and other stationery applications etc. currently dominated by lead-acid technologies. These target applications have higher battery turnovers and will embrace new technologies that can provide significant improvements in battery performance.

The match-to-market study highlighted areas where our technology needs to be refined in order to better meet key requirements of potential end customers. One fundamental requirement for all identified target applications is the capability for high-power discharge. Gelion will undertake further research and development activities to further improve the suitability of our battery for these high-power applications. An additional requirement is toward the ability to support dynamic cycling patterns without frequent maintenance cycles. Our zinc cell design currently uses "strip cycles" where we discharge the cell fully as maintenance. We had planned to integrate this maintenance transparently to use as an integrated system function but after market review, we have decided to reach higher, toward achieving improved cell performance to reduce/eliminate the maintenance function need. Therefore, our current focus is on optimising our technology to better meet these requirements while also engineering for cost improvement to ensure Gelion can deliver a robust and proven product to our target markets before investing to scale production. This further refinement is pivotal to ensuring there is a straightforward pathway to commercial success.

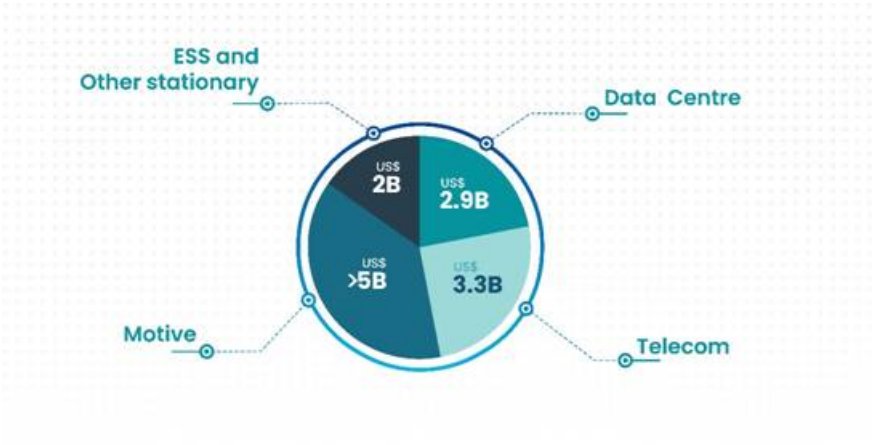
While this shift in Gelion's commercialisation approach will require time and investment, the Board believes that this approach provides both the most effective stewardship of the Company's resources and the fastest pathway to the successful launch of a new technology into a highly competitive and mature market, while leveraging the achievements already made.

Target Applications

Zinc-bromide batteries offer a competitive advantage in several key market applications currently dominated by lead-acid technologies, by providing a safer, more sustainable, and more durable solution. Critical analysis of technological capabilities identified that our batteries are well-suited for high-power discharge applications.

Our rigorous match-to-market investigation identified several target markets where our zinc-bromide technology has significant market potential. These target markets all have high-power discharge applications and include Uninterruptible Power Supply (UPS) for data centres and telecommunications, ESS and other stationery applications etc. We are currently exploring and evaluating the market potential and our competitiveness in additional applications, including motive and other stationary (excluding LDES) applications.

The target markets are significant, multi-billion-dollar markets that will provide Gelion with the opportunity to demonstrate the impact of our technology at a commercial scale and build a solid foundation that identifies Gelion, and our technology, as a strong participant in the energy storage market.



Source: CBI Avicenne Report 2021

Lithium-Silicon-Sulfur Technology

The global uptake of lithium-ion technologies continues to grow rapidly, with demand for these batteries forecast to grow roughly 700% to 3.5TWh per year by 2030.[3] There is a strong push to develop alternative lithium-based technologies with higher energy densities to continue to drive down the price, weight and size of lithium-based battery packs.

Gelion's lithium team has focussed on developing sulfur-based cathodes that can be coupled with existing lithium-ion and lithium-silicon anode technologies to provide a battery with improved safety and increased energy density at a reduced cost compared to traditional lithium batteries. This presents a compelling commercial proposition with a range of viable applications, including electric vehicles, e-aviation, and drones.

Gelion's innovative sulfur-based cathode aims to solve some of the current challenges with lithium-sulfur technologies, including the provision of a sulfur management solution. As communicated in December 2022, we made substantial progress, achieving 300 usage cycles with less than 20% capacity loss with our additives in half-cells, which is a significant improvement compared to the less than 100 cycles achievable for cells without an additive.

Gelion is accelerating its research in this area and is commencing early stages of full cell testing, with a goal to develop a LiSiS battery by pairing our innovative cathode technology with a silicon-based anode. While initial research will focus on a LiSiS battery, our technology is being developed to ensure future flexibility and intended to have intrinsic compatibility to lithium metal, graphitic, and silicon-based anode technologies. As part of our development strategy Gelion has acquired two IP portfolios that significantly strengthen our market position. With this acquisition, we now have access to a range of innovative technologies that enable us to pursue multiple pathways of cell development, allowing us to deliver superior products and services to our customers. In addition, this portfolio provides us with the ability to prevent others from adopting various Lithium Sulfur design solutions, furthering our opportunity to cement our position as a leading player in the industry.

the industry.

Gelion primary focus will be on the development of key aspects where we already possess strong research capabilities, including further cathode development, electrolyte formulation and cell design. Gelion is currently seeking to form partnerships with leading silicon anode innovators to fast-track the development of a commercially viable LiSiS battery solution and capitalise in a rapidly evolving market.

Gelion, in partnership with other major industry participants, is exploring the potential to establish pilot scale manufacturing capabilities within the LiSiS space.

Post-period end

Lithium-based Intellectual Property Acquisitions

- *IP portfolio acquisition from Johnson Matthey*

On 9 March 2023, Gelion announced the acquisition of a significant IP portfolio from Johnson Matthey, a British multinational chemicals and sustainable technologies company. This portfolio consists of over 450 granted patents, based on 82 families, and applications covering a broad variety of lithium-based battery inventions, as well as Johnson Matthey's silicon alloy development programme, technology transfer packages, market and portfolio analysis, and manufacturing design and cost models. Significantly, this acquisition included the complete IP portfolio from Oxis Energy Limited, which was a world leading lithium-sulfur battery innovator, and covers various essential aspects of lithium-sulfur technologies. However, we recognise that one significant challenge in this field is sulfur management, which if left unaddressed, can lead to batteries with poor durability and reduced commercial feasibility. Combining this portfolio with Gelion's existing portfolio, i.e. a core strength around cutting-edge sulfur management strategies, consolidates Gelion's position in the highly competitive lithium-sulfur battery space.

With Gelion's current focus on the development of sulfur cathodes, the Group is in advanced discussions for the sale of the silicon anode-based IP portfolio, to a third party, resulting in a net cost of £3 million to Gelion for the Johnson Matthey IP acquisition.

- *IP acquisition from University of Sydney*

The Johnson Matthey IP portfolio acquisition was followed shortly afterwards by the acquisition of intellectual property assets from the University of Sydney. This involves the transfer of patents, technical information and future improvements relating to sulfur cathodes to Gelion. This IP was previously licensed by Gelion, and, through our research activities, we have made considerable progress in the further development of this technology. This acquisition gives Gelion greater control over future development opportunities and opens up new commercialisation pathways, ensuring that Gelion can fully exploit this ground-breaking technology.

One of Gelion's core principles is to establish a strong and resilient IP portfolio, which strengthens Gelion's position and provide effective protection to retain our competitive advantage in the energy storage market. While Gelion continues to generate new IP and know-how through our research and process development activities, the two acquisitions outlined above are strategically significant to Gelion's growth strategy in the LiSiS market and future commercialisation plans. These acquisitions will enhance and further strengthen our IP portfolio, while also facilitating a rapid acceleration in the development of our next-generation LiSiS technology.

Supercharge Australia Innovation Challenge

Gelion has been selected to participate in the Supercharge Australia Innovation Challenge. Supercharge Australia is a project of the partnership project between the not-for-profit startup support organisations New Energy Nexus globally and EnergyLab in Australia and New Zealand. New Energy Nexus has offices in 11 countries and is head-quartered in the US, and EnergyLab is the leading local climate and clean energy tech startup support organisation, both supporting clean energy entrepreneurs with funds, accelerators, and networks.

A key purpose of Supercharge Australia is to bring the Australian industry together to understand where innovation is required and leverage New Energy Nexus' global expertise, including its role in the US Department of Energy's Lithium Bridge project combined with EnergyLab's leading Australian startup support expertise to accelerate the development of a robust and secure domestic supply chain for lithium-based batteries and associated businesses. Gelion aims to use the initiative to extend visibility and understanding of the strength, relevance, and ultimate potential of its LiSiS initiative and to help further develop important connections inside the Australian and Global supply chain.

Zinc-Bromide Cell Manufacture

Gelion has successfully manufactured approximately 1,200 gel-based zinc-bromide cells on our first industrial pilot line. This pilot line was developed in partnership with Battery Energy Storage Solutions Pty Ltd and has generated learnings that provide valuable insight into the scaled production of our technology.

While these cells have passed initial testing using a cell evaluation regime develop by Gelion, this testing was not completed using analogous conditions to those expected during an in-field validation trial.

Gelion is committed to delivering products that meet customer needs and expectations. Rigorous testing and end-to-end validation of our zinc-bromide cells have started using equivalent conditions and infrastructure that will be utilised in the trial. Our batteries will be deployed for independent in-field validation trial only after the successful completion of this internal testing.

As part of this trial, Gelion has developed and implemented a more advanced battery management system (BMS) that has been designed to allow for high accuracy measurements of the batteries. Our BMS has been intentionally designed to be compatible with other battery chemistries. We are continuing to develop a robust BMS software to manage multi-string systems and provide reliable data for real-time data analysis. This will provide invaluable information regarding our technology's battery performance during real-world application.

FY23 Outlook

We have made significant progress in H1 FY23 with the launch of the pilot manufacturing facility, first production of the zinc-bromide batteries, and technological developments made by the team in both product categories; I am excited to have joined a business with huge growth opportunities and such an innovative team.

Within the LiSiS market, we are accelerating development supported by the most recent IP acquisition to further consolidate our position in this market and focusing on developing our strong partnership base that will assist in fast-tracking our path to commercialisation.

Gelion has now successfully manufactured approximately 1,200 zinc-bromide cells for the Acciona trial from our pilot manufacturing line and in the near term, we will focus on developing a robust BMS software to ensure accurate and timely data.

Our aim is to develop zinc-bromide cells towards product optimisation and cost management, building on the great work already done by the Gelion team to establishing the best match to market and the areas of focus to achieve before investing in scaling.

It has been a strong first half for Gelion and with the global renewable energy transition accelerating at pace, we are

confident in our ability to deliver / achieve FY results in line with expectations.

John Wood
CEO
16 March 2023

CFO Statement

H1 FY23 has been a period of significant evolution for Gelion across all fronts with strides made in terms of technological development, adapting and learning during the setup of the pilot manufacturing facility, identifying the right target market best suited for our zinc-bromide batteries, making significant inroads into the Lithium Silicon Sulfur space, organic and inorganic initiatives which are all steps towards delivering a commercial product to suit our customer needs.

Interim results

The results for the six months ended 31 December 2022 reflect the ongoing efforts towards product development, industrial production of Gelion zinc-bromide cells, BMS development and costs incurred towards the Acciona trial - Phase 1 and phase 2.

Revenue

Consistent with the historical periods, our policy is to recognise any R&D tax incentive income at year-end only which in our case is June. Given the importance of getting these claims accurately filed with the Australian Taxation Office (ATO), we only recognise these once the detail work supporting these incentive claims is finalised by the team, reviewed, signed off by an independent advisor and finally, the auditors.

Adjusted EBITDA loss

Adjusted EBITDA loss for the period was £4.4m (H1 FY22 EBITDA loss: £2.3m). The increase in the losses were driven by:

- Additional costs of being a public company (prior period costs were largely as a private company);
- Investment in strengthening our capability by increasing average headcount to 51 in H1 FY23 (H1 FY22: 28) to support development of chemistry (scientists and chemical engineers), manufacturing (mechanical engineers), and strategy execution (executive and commercial team) for both zinc-bromide and LiSiS batteries;
- Ongoing and new R&D activities; and
- Expenses incurred in the ongoing manufacturing and BMS development activities related to the Acciona trial project including utilising labour hire staff.

Balance sheet

The Company has a strong balance sheet to continue its development program

- Cash and cash equivalents (incl. term deposits) at period end: £14.4m (June 22: £17.0m)
- No debt on the balance sheet

FY23 Outlook

Gelion will continue to pursue its rigorous cost management and capital deployment strategy however strategic decisions to accelerate development and commercialisation such as the Johnson Matthey IP acquisition to maximise shareholder return will be taken by the board.

With an efficient cost base and a debt free balance sheet, we are well placed to deliver a result for FY23 which is in line with our expectations and we are confident about the long-term prospects for the Group.

It is also worth noting that whilst disruptions from COVID-19 continue to decline, the associated macroeconomic challenges are still ongoing and are impacting businesses globally e.g. inflation, higher interest rates, supply chain disruptions, increased freight costs, employee remuneration. These have significantly increased cost of doing business globally and companies including Gelion, are not immune from this.

Keeping the above in mind, I am very pleased to confirm that we continue to be well capitalised and are progressing the developments as planned. Our guidance for the full FY23 is largely in line with our expectations at the time of the IPO.

Amit Gupta
CFO
16 March 2023

Consolidated Statement of Comprehensive Income (unaudited)

	Notes	Six months ended 31 Dec 2022 £'000 UNAUDITED	Six months ended 31 Dec 2021 £'000 UNAUDITED
Revenue from contracts with customers		-	-
Other income		-	-
Total income		**-**	**-**
Administrative expenses	3	(2,348)	(1,255)

Share-based payments		(181)	(49)
Research and development expenditure	4	(2,294)	(1,127)
Operating loss before listing and other associated costs		**(4,823)**	**(2,431)**
Listing and other associated costs	5	-	(4,481)
Operating loss		(4,823)	(6,912)
Finance costs		(2)	(45)
Finance income		76	-
Loss on ordinary activities before taxation		**(4,749)**	**(6,957)**
Tax on loss on ordinary activities		-	-
Loss on ordinary activities after taxation		**(4,749)**	**(6,957)**
Total loss for the year attributable to equity holders of the parent			
Other comprehensive income:			
Items that may be reclassified to profit or loss			
- Exchange gains/(losses) arising on translation of foreign operations		(42)	157
Total comprehensive loss for the year attributable to equity holders of the parent		**(4,791)**	**(6,800)**
Loss per share (basic and diluted) attributable to the equity holders (pence)	6	(4.40)	(7.50)

The above results relate entirely to continuing activities.

There were no acquisitions or disposals of businesses in the period.

Consolidated Balance Sheet (unaudited)

	Notes	31 Dec 2022 £'000 UNAUDITED	30 June 2022 £'000 AUDITED
Assets			
Non-current assets			
Intangible assets		389	362
Property, plant and equipment		1,254	1,050
Current assets			
Cash and cash equivalents		8,210	16,024
Short-term investments (term deposits)		6,230	1,017
Other receivables		446	2,153
Total Assets		**16,529**	**20,606**
Liabilities			
Current liabilities			
Trade and other payables		1,384	854
Non-current liabilities			
Trade and other payables		31	31
Total liabilities		**1,415**	**885**
Net assets		**15,114**	**19,721**
Equity			
Issued capital	7	108	107
Share premium account	7	20,662	20,662
Other non-distributable reserves	7	2,944	5,148
Capital reduction reserve	7	11,194	11,194
Accumulated losses		(19,794)	(17,390)
Total equity		**15,114**	**19,721**

Consolidated Statement of Cash Flows (unaudited)

	Six months ended 31 Dec 2022 £'000 UNAUDITED	Six months ended 31 Dec 2021 £'000 UNAUDITED
Cash flow from operating activities*		
Loss for the year before exchange losses	(4,749)	(6,957)
Adjustments for:		
– Depreciation	199	133
– Amortisation	6	6
– finance costs	2	-
– finance income	(19)	-
– share-based payments expense	181	3,826
Changes in operating assets/liabilities		
– Decrease / (increase) in receivables	1,707	963
– Increase / (decrease) in payables	522	125
Net cash used in operating activities	**(2,151)**	**(1,904)**
Cash flows from investing activities		
Purchase of intangible assets	(34)	(31)
Purchase of tangible property, plant and equipment	(371)	(162)
Short-term investments (term deposits)	(5,213)	(27)
Interest received	19	-
Net cash used in investing activities	**(5,599)**	**(220)**
Cash flows from financing activities*		
Proceeds from issue of shares	1	16,196
Proceeds on issue of convertible loan notes that were subsequently converted	-	5,999
Transaction costs of issue of shares*	-	(1,520)
Repayment of leasing liabilities	(23)	(61)
Net cash used in financing activities	**(22)**	**20,614**
Net increase/(decrease) in cash held	**(7,772)**	**18,490**
Cash and cash equivalents at beginning of financial year	**16,024**	**1,913**
Effect of exchange rate changes	**(42)**	**157**
Cash and cash equivalents at end of reporting period	**8,210**	**20,560**

* The Company has reclassified transaction costs related to the issue of shares for the financial year 2022 as originally reported in the Annual Report, from operating activities to financing activities. The net effect of this reclassification for the financial year 2022 is a decrease of £805k in cash flow from operating activities and an increase in cash flow from financing activities by the same amount, therefore no net impact.

Consolidated Statement of Changes in Equity (unaudited)

	Share capital £'000	Share premium £'000	Accumulated losses £'000	Capital reduction reserve £'000	Other non-distributable reserves £'000	Total £'000
Balance at 1 July 2021	**33**	**11,251**	**(8,389)**	**-**	**691**	**3,586**
Total comprehensive loss for the period	**-**	**-**	**(6,957)**	**-**	**157**	**(6,800)**
Contributions by and distributions to owners:						
Bonus issue	57	(57)	-	-	-	-
Capital reduction	-	(11,194)	-	11,194	-	-
Share-based payment charge	-	-	-	-	3,826	3,826
Shares issued during the period	17	22,025	-	-	-	22,042
Costs of shares issued	-	(1,520)	-	-	-	(1,520)
Exercise of share options	-	153	141	-	(141)	153
Balance at 31 Dec 2021	**107**	**20,658**	**(15,205)**	**11,194**	**4,533**	**21,287**
Balance at 1 Jan 2022	**107**	**20,658**	**(15,205)**	**11,194**	**4,533**	**21,287**
Total comprehensive loss for the period	**-**	**-**	**(2,200)**	**-**	**556**	**(1,644)**
Contributions by and distributions to owners:						
Share-based payment charge	-	-	-	-	76	76

Costs of shares issued	-	(21)	-	-	-	(21)
Exercise of share options	-	25	17	-	(17)	25
Balance at 30 June 2022	**107**	**20,662**	**(17,388)**	**11,194**	**5,148**	**19,723**
Balance at 1 July 2022	**107**	**20,662**	**(17,388)**	**11,194**	**5,148**	**19,723**
Total comprehensive loss for the period	**-**	**-**	**(4,749)**	**-**	**(42)**	**(4,791)**
Contributions by and distributions to owners:						
Share-based payment charge	-	-	-	-	181	181
Shares issued during the period	1	-	-	-	-	1
Forfeited / cancelled share options	-	-	2,343	-	(2,343)	-
Balance at 31 Dec 2022	**108**	**20,662**	**(19,794)**	**11,194**	**2,944**	**15,114**

Notes to The Consolidated Financial Statements

1. General Information

Gelion Plc ('Gelion' or the 'Company') is a 100% owner of an Australian subsidiary that conducts research and development in respect of an innovative battery system and associated industrial design and manufacturing.

Gelion is a public limited company, limited by shares, incorporated and domiciled in England and Wales. The Company was incorporated on 26 September 2015. The registered office of the Company is at 3rd Floor, 141-145 Curtain Road, London, EC2A 3BX. The registered company number is 09796512.

Gelion Plc was incorporated as Gelion UK Ltd. On 12 November 2021, the Company was re-registered as a public limited company under the Companies Act and its name was changed to Gelion plc.

The Board, Directors and management referred to in this document refers to the Board, Directors and management of Gelion.

2. Accounting Policies

2.1 Basis of preparation

These interim consolidated financial statements have been prepared in accordance with IAS 34 Interim Financial Reporting. They do not include all disclosures that would otherwise be required in a complete set of financial statements and should be read in conjunction with the 2022 annual report.

2.2 Going concern

The Directors believe that the Company has adequate resources to continue trading for at least 12 months from the date of approval of this report. Accordingly, they continue to adopt the going concern basis in preparing the Interim Financial Statements.

2.3 Earnings per share

Basic earnings/loss per share

Basic earnings/loss per share is calculated by dividing:

- the profit or loss attributable to owners of Gelion Plc, excluding any costs of servicing equity other than Ordinary Shares; by
- the weighted average number of Ordinary Shares outstanding during the financial year, adjusted for bonus elements in Ordinary Shares issued during the financial year.

Diluted earnings/loss per share

Diluted earnings/loss per share adjusts the figures used in the determination of basic earnings/loss per share to take into account:

- the after-income tax effect of interest and other financing costs associated with dilutive potential Ordinary Shares; and
- the weighted average number of shares assumed to have been issued for no consideration in relation to dilutive potential Ordinary Shares.

2.4 Share-based payments

The Group provides benefits to its employees in the form of share-based payments, whereby employees render services in exchange for shares or rights over shares (equity-settled transactions) in the parent entity.

The cost of these equity-settled transactions with employees is measured by reference to the fair value of the equity instruments at the date at which they are granted. The fair value is determined using a Black-Scholes model. This calculation is completed by the parent entity.

The cost of these equity-settled transactions is recognised as an expense, with a corresponding increase in equity, over the period in which the service conditions are fulfilled (the vesting period), ending on the date on which the relevant employees become fully entitled to the award (the vesting date).

At each subsequent reporting date until vesting, the cumulative charge to profit and loss is the product of:

- the grant date fair value of the award;
- the current best estimate of the number of awards that will vest;
- the expired portion of the vesting period; and
- the removal of any fair value attributable to share options that have contractually lapsed, expired, cancelled or forfeited.

The charge to profit and loss for the period is the cumulative amount as calculated above less the amounts already charged in previous periods. There is a corresponding entry to the share-based payment reserve in equity.

If a share-based payment arrangement is modified, the minimum expense recognised over the vesting period is the original fair value. If the modification increases fair value, the additional fair value is recognised over the remaining vesting period.

Share-based payments deemed non-recurring

The Group operated a share option plan whereby employees and key service providers were granted options over shares in Gelion UK Limited. Due to the Company's admission to trading on AIM which took place on 30 November 2021 all unvested options were vested triggering an accelerated share-based payment expense.

In addition to the existing share option plan the Group agreed to grant options over Ordinary Shares pursuant to obligations under the service agreements with the relevant individuals. These service agreement obligations were triggered by admission to trading on AIM. The service condition was to be employed with a company in the Group at vesting.

Both the acceleration of option vesting and additional options granted pursuant to service agreement obligations are triggered by the Company's admission to AIM and therefore can be considered as part of the same non-recurring event.

2.5 Foreign currency translation

The functional currency of each company in the Group is that of the primary economic environment in which the entity operates. Monetary assets and liabilities denominated in foreign currencies are translated into GBP at the rates of exchange ruling at the period end. Transactions in foreign currencies are recorded at the rate ruling at the date of the transaction.

All differences are taken to the Statement of Comprehensive Income. On consolidation, the assets and liabilities of the Group entities that have a functional currency different to the presentational currency are translated into GBP at the closing rate at the date of the Statement of Financial Position. Income and expenses for each statement of profit or loss are translated at average exchange rates for the period. Exchange differences are recognised in other comprehensive income and accumulated in a foreign exchange translation reserve.

2.6 Critical accounting judgements and key sources of estimation uncertainty

R&D tax incentives

From 1 July 2011, the Australian Taxation Office has provided a tax incentive, in the form of a refundable tax offset of 43.5%, for eligible research and development expenditure. The Group recognises a receivable for R&D tax incentive at the year-end only based on total eligible expenditure incurred during the year. As such, no R&D tax incentive receivable has been recognised for the period ended 31 December 2022.

3. Administrative Expenditure

Administrative expenditure includes personnel and related costs (including salaries, benefits and payroll tax) and costs associated with external consultancy services, as well as depreciation.

4. R&D Expenditure

R&D expenditure includes personnel and related costs (including salaries, benefits and payroll tax) and costs associated with product research, design and development.

5. Listing and Other Associated Items

	Six months ended 31 Dec 2022 £'000 UNAUDITED	Six months ended 31 Dec 2021 £'000 UNAUDITED
Non-recurring items - listing costs	-	401
Non-recurring items - share-based payments accelerated due to listing	-	3,777
Non-recurring items - key management bonus due to listing	-	303
Total non-recurring items - listing and other associated costs	-	4,481

During the six months ended 31 December 2021, certain costs were incurred in the period relating to the Company converting from a private to public limited company, its subsequent admission to AIM, issuance and sale of shares and associated professional costs.

As set out in the Admission Document, 11,063,679 new Ordinary Shares were issued and 2,068,966 existing shares were sold. The Company's conversion and subsequent admission to AIM is a one-off event and therefore considered 'non-recurring'.

These non-recurring expenses are therefore separately disclosed to assist the user of the financial information to understand and compare the underlying results of the Company.

6. Loss Per Share

	Six months ended 31 Dec 2022 UNAUDITED	Six months ended 31 Dec 2021 UNAUDITED
Loss after tax	£4,749,000	£6,957,000
Weighted average number of shares (number)	107,577,979	92,744,562
Loss per share (pence)	4.4p	7.5p

The calculation of the loss per share is based on the loss for the financial period after taxation of £4,749,000 (2021: £6,957,000) and on the weighted average of 107,577,979 (2021: 92,744,562) Ordinary Shares in issue during the period.

There were 5,657,795 share options outstanding as of 31 December 2022 (30 June 2022: 7,562,795) under the original share option. In the six months to 31 December 2022, 1,905,000 options were forfeited / cancelled, most of which relates to the ex-CEO.

The Group introduced the new share option plan during the period and a total of 255,951 options were granted to employees in August 2022. In addition, 2,704,000 share options were granted to new CEO as part of his employment agreement. As a result, total outstanding options as of 31 December 2022 were 8,617,746 (original share option plan: 5,657,795; new share option plan: 2,959,951).

The impact of these options would be to reduce the diluted loss per share and therefore they are antidilutive. Hence, the diluted loss per share reported for the periods under review is the same as the earnings per share.

7. Issued Capital and Reserves

Share capital and premium

	Ref.	Number of shares on issue	capital £'000	Share premium £'000
Balance as at 1 July 2021	**a**	**4,494,196**	**33**	**11,251**
Bonus issues and reorganisation	b	85,389,724	57	(57)
Capital reduction	c	-	-	(11,194)
Shares issued during the period	d	11,063,679	11	16,032
Loan notes converted to equity	e	5,516,240	6	5,993
Cost of shares issued	f	-	-	(1,520)
Exercise of share options		560,000	-	153
Balance as at 31 Dec 2021		**107,023,839**	**107**	**20,658**
Cost of shares issued		-	-	(21)
Exercise of share options		111,000	-	25
Balance as at 30 June 2022		**107,134,839**	**107**	**20,662**
Shares issued during the period	g	1,026,515	1	-
Balance as at 31 Dec 2022		**108,161,354**	**108**	**20,662**

a) Gelion had two classes of share at 1 July 2021 - A Ordinary and B Ordinary which ranked pari passu.

At 30 June 2021 there were 3,335,196 A Ordinary Shares of £0.01 each.

At 30 June 2021 there were 1,159,000 B Ordinary Shares of £0.0000086 each.

b) On 2 September 2021, the Company consolidated the 1,159,000 B Ordinary Shares of £0.0000086 each into 1,000 B Ordinary Shares of £0.01 each, on the basis of one B Ordinary Share of £0.01 for every 1,159 B Ordinary Shares of £0.0000086 held on the record date (the 'B Share Consolidation').

On 2 September 2021, following the B Share Consolidation, the Company issued 1,158,000 new B Ordinary Shares of £0.01 each by way of a bonus issue to the holders of such shares on the basis of 1,158 B Ordinary Shares for each one B Ordinary Share held on the record date (the 'First Bonus Issue').

On 3 September 2021, following completion of the First Bonus Issue, the Company issued 3,335,196 A Ordinary Shares of £0.01 each and 1,159,000 B Ordinary Shares of £0.01 each pursuant to a bonus issue of such shareholders on the basis of one A Ordinary Share for each A Ordinary Share held and one B Ordinary Share for each B Ordinary Share held, in each case on the record date (the 'Second Bonus Issue').

c) Immediately following the Second Bonus Issue, a capital reduction was undertaken and the balance standing to the credit of the share premium account was cancelled and the amount so cancelled was credited to a distributable reserve.

On 12 November 2021, the A Ordinary Shares of £0.01 each in the capital of the Company and the B Ordinary Shares of £0.01 each in the capital of the Company then in issue were redesignated as Ordinary Shares of £0.01 each in the capital of the Company carrying the rights and subject to the restrictions attaching to the Ordinary Shares of the Company as set out in the Articles (the 'Re-designation')

On 13 November 2021, the Company sub-divided each Ordinary Share of £0.01 each arising from the Re-designation into ten new Ordinary Shares of £0.001 each.

d) Immediately prior to admission to AIM the Company had 89,883,920 shares in issue. 11,063,679 new Ordinary Shares of £0.001 each were issued in the fundraising following admission to AIM.

e) On 30 November 2021, a convertible debt instrument was fully converted into 5,516,240 Ordinary Shares of £0.001 each.

f) Transaction costs incurred in the issuing of shares in the period ended 30 June 2022 of £2,346,000 (2021: £nil) of which £1,541,000 have been offset against share premium and £805,000 have been expensed.

g) On 19 October 2022, 1,026,515 Ordinary Shares of £0.001 each were issued to ex-CEO Andrew Grimes (related party transaction) in exchange for relinquishing 1,830,000 options that had vested.

Nature and purpose of other reserves
Other reserves

- Share-based payments reserve

The share-based payments reserve is used to recognise the value of equity-settled share-based payments provided to employees, including key management personnel, as part of their remuneration. Refer to note 8 for further details of these plans.

During the period, 1,830,000 vested options were forfeited in exchange for shares issued to ex-CEO Andrew Grimes. The fair value of the forfeited / cancelled options recognised in share-based payment reserve to 31 December 2022 was £2,342,775, the majority of which (£2,324,100) related to Andrew Grimes forfeited options.

- Foreign currency translation reserve

The subsidiary's functional currency is AUD and therefore on consolidation a foreign exchange gain or loss on translation of net assets is recognised through other comprehensive income at each reporting date. These gains or losses are accumulated in a foreign currency translation reserve.

- Capital reduction reserve

Immediately following the Second Bonus Issue, the balance standing to the credit of the share premium account was cancelled and the amount so cancelled was credited to a distributable reserve called the 'capital reduction reserve'.

Other non-distributable reserves:

	Share-based payment reserve £'000	Foreign currency translation reserve £'000	Total other reserves £'000
Balance at 1 July 2021	**892**	**(201)**	**691**
Foreign currency translation reserve movement	-	157	157
Share-based payment charge	3,826	-	3,826
Exercise of options	(141)	-	(141)

Balance at 31 December 2021	**4,577**	**(44)**	**4,533**
Foreign currency translation reserve movement	-	556	556
Share-based payment charge	76	-	76
Exercise of options	(17)	-	(17)
Balance at 30 June 2022	**4,636**	**512**	**5,148**
Foreign currency translation reserve movement	-	(42)	(42)
Share-based payment charge	181	-	181
Forfeited / cancelled share options	(2,343)	-	(2,343)
Balance at 31 December 2022	**2,474**	**470**	**2,944**

8. Share-Based Payments

The Directors recognise the role of the Group's staff in contributing to its overall success and the importance of the Group's ability to incentivise and motivate its employees. Therefore, the Directors believe that certain employees should be given the opportunity to participate and take a financial interest in the success of the Company.

In prior years, the Group operated a Share Option Plan whereby employees and key service providers were granted options over shares in Gelion UK Limited. Due to the Company's admission to trading on AIM which took place on 30 November 2021 all unvested options were vested triggering an accelerated share-based payment expense.

In addition to the existing Share Option Plan, the Group agreed to grant options over Ordinary Shares pursuant to obligations under the service agreements with the relevant individuals. These service agreement obligations were triggered by admission to trading on AIM. The service condition is to be employed with a company in the Group at vesting. Both the acceleration of option vesting and additional options granted pursuant to service agreement obligations are triggered by the Company's admission to AIM and therefore can be considered as part of the same non-recurring event.

In July 2022, the Boardintroduced a new Share Option Plan. The plan is designed to motivate and incentivise key talent to assist the Group in achieving its strategic aims whilst remaining consistent with its tolerance for risk, all set within delegated limits set out during the recent IPO.

These options are structured as nominal cost options. The options will normally vest in three equal tranches over three years, subject to continued employment.

On 21 November 2022, 255,951 options were granted that will vest in three equal tranches, the first anniversary is 31 August 2023, followed by annual vesting on 31 August 2024 and 31 August 2025. The options were granted with the exercise price of 0.1 pence and will be exercisable up to the tenth anniversary of the grant.

On 8 December 2022, 2,704,000 options granted to Mr John Wood and these will vest in three tranches as follows: 12 months from grant date 1,622,400, 24 months from grant date 540,800 and 36 months from grant date 540,800. The options were granted with the exercise price of 0.1 pence and are exercisable up to the fifth anniversary of the grant.

	Six months ended 31 Dec 2022 £'000 UNAUDITED	Six months ended 31 Dec 2021 £'000 UNAUDITED
Recurring share-based payment expense recognised	181	49
Non-recurring share-based payment expense recognised	-	3,777
Total share-based payment expense	181	3,826

9. Events subsequent to period end

Post 31 December 2022, Gelion has made the following acquisitions. The below summarises the details of these acquisitions including the impact on the financial information.

1. Johnson Matthey IP acquisition

On 9 March 2023, Gelion signed an agreement to acquire a world-leading IP portfolio in a range of next generation battery material technologies from Johnson Matthey, a British multinational chemicals and sustainable technologies company. The Company acquired the entire LiSiS patent portfolio for £4.25 million which includes over 450 patents across 82 patent families. This transaction will be funded from the cash resources of the Company.

With the Group's focus on sulfur cathodes, Gelion is in advanced discussions to sell a subset of patents (73 patents across 17 patent families) as well as applications relating to silicon anode to a third party for c £1.25 million. Should the third-

17 patent families) as well as applications relating to silicon anode to a third party for c.£1.25 million. Should the third party sale being successful, the net cash impact will be c.£3 million.

2. Lithium Sulfur IP acquisition from University of Sydney

On 13 March 2023, Gelion acquired the University of Sydney's ("University") Lithium Sulfur IP for a total consideration of AUS$130,000, which was satisfied by the issue of 171,396 ordinary shares in Gelion plc (the "Consideration Shares") at a price of 42.83 pence which are expected to be admitted on or around 17 March 2023.

On the issue of shares, the University will transfer to Gelion plc the patents, the technical information and any improvements in relation to sulfur cathodes (including suitable additives and electrolytes), including all of its right, title and interest in any improvement to date and in the future, created by the University or its associates.

This acquisition converts Gelion's existing exclusive licence with the University to use its Lithium Sulfur technology within its additives business to create LiSiS batteries.

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[1] Wu and Yushin, Energy Environ. Sci., 2017, DOI: 10.1039/c6ee02326f

[2] Avicenne Energy for CBI 2021

[3] Source: BNEF, Long-term Electric Vehicle Outlook 2022.

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