# ASX Announcement 7 March 2024



## ALTAMIN SIGNS MOU WITH IREN FOR LAZIO GEOTHERMAL LITHIUM PROJECT

Altamin Limited (ASX: AZI) (Altamin or Company) is pleased to announce that it has signed a non-binding memorandum of understanding (MOU) with IREN SpA (BIT:IRE) (IREN), one of Italy's largest multi-utility companies, in relation to potential collaboration for critical raw material production at the Lazio Geothermal Lithium Project (Lazio Project).



(Left) Altamin's Alexander Burns (Right) IREN's Luca dal Fabbro

#### Key terms of MOU

The MOU provides that the Company and IREN agree to cooperate and work together in good faith to maximise the probability of success of critical raw material production of the Lazio Project, and to explore the nature and context of collaboration between them, specifically mechanisms of collaboration in respect of the Lazio Project where:

- the Company will act as the lead party to develop the Lazio Project;
- IREN makes available its operations, regulatory and public affairs skills;
- IREN and the Company seek offtake partners for any lithium production from the Lazio Project; and
- IREN, with the support of the Company, will assist with seeking financing from third parties for the Lazio Project.





The Lazio Project will be progressed through Lithium Italy SrI or a special purpose vehicle to be established by Altamin or an incorporated or contractual joint venture established by the parties (**Vehicle**), where IREN may acquire an equity interest in the Vehicle (as described below).

The MOU provides that the parties will, broadly, develop the Lazio Project in accordance with the following consecutive steps:

- Altamin will complete high-level preliminary analysis, including a scoping study, for estimates of lithium and other minerals at the Lazio Project.
- IREN, with the support of Altamin, will seek non-secured financing to complete a pre-feasibility study (**PFS**) and seek offtake customers for the Lazio Project.
- A PFS led by Altamin will detail all relevant technical, commercial, financial (including optimal financing structure), regulatory and legal components necessary to develop a pilot plant.
- The parties (especially IREN) will seek financing for the development and construction of a pilot plant and a definitive feasibility study (**DFS**) for the Lazio Project.
- Development and construction of a pilot plant and DFS will be led by Altamin based on the results of the pilot plant to assess the development and operation of a commercial plant.
- The parties (especially IREN) will seek financing for the development, construction and operation of a commercial plant.
- Development, construction and operation of a commercial plant will be led by Altamin.

At any time, IREN can propose to Altamin an equity contribution in the Vehicle that reflects the value of the contribution by IREN as against the value of the Lazio Project and Altamin will negotiate such a proposal with IREN in good faith.

The MOU operates for a period of the earlier of: (a) 6 months; and (b) until such time as the parties enter formal agreements to replace the MOU (unless the parties mutually agree to terminate the MOU prior to then). The material binding provision is that during this period, subject to their respective fiduciary duties, the Company and IREN will not solicit, initiate or participate in any discussions or negotiations with any third party in respect to an investment in the Vehicle or offtake rights for the Lazio Project except where mutually agreed between the parties or where existing discussions are continuing.

The MOU is otherwise non-binding and there can be no guarantee that any formal or binding agreements will be entered into between the parties. The parties will negotiate in good faith and seek to agree and execute formal agreements to replace the MOU.

Normal confidentiality and representations and warranties for an MOU of this nature otherwise apply.

#### Commenting on the MOU, Non-Executive Chairman of Altamin, Alexander Burns, said:

"We are delighted to be joining forces with IREN given their complementary skill set and leading reputation for developing and operating major infrastructure projects throughout Italy in related industries including waste water management, energy generation and electricity distribution. IREN will also assist in navigating the permitting and financing requirements for the project that, should it be successful, will become one of the few sources of lithium within the EU. The project also enjoys proximity to infrastructure, markets and has significant geothermal energy potential that will be incorporated into the studies to be commenced shortly as part of our collaborative approach."

#### Commenting on the MOU, Executive Chairman of IREN, Luca Dal Fabbro, said:

"Lithium appears in the list of 34 critical raw materials surveyed by the European Commission and is also included in the 17 that can be classified as strategic. The Italian requirement for this element, for manufacturing chains linked to the energy and digital transition, is estimated to grow by 2040 up to 15 times compared to that of 2020. Hence the interest of IREN, a company at the forefront in the recovery of critical raw materials, in taking an active part by making its know-how available."





#### **About IREN**

**IREN** (https://www.gruppoiren.it/en.html) is one of the largest multi-utility companies in Italy. IREN is already active in **electronic waste recycling** and is currently investing in **recycling of critical raw materials** from waste from electrical and electronic equipment. IREN has particular skills in water and wastewater treatment, recycling and renewable energy production. IREN and Altamin believe that they collectively possess the necessary complementary skills and resources to develop the Lazio Geothermal Lithium Project.

For further information on the Lazio Project, please refer to Altamin's recent ASX releases 26 February 2024 "Geothermal Lithium Project Licences Expanded By 500%" and 14 November 2023 "Progress Of Lazio Geothermal Lithium Project." References to Lithium exploration results are to those in the announcement "Altamin expanding Lithium Project Footprint 500%" on 4 October 2023. Altamin is not aware of any new material or data which materially affects the information included in that announcement.

#### **ENDS**

Authorised for release to the ASX by the board of directors of the Company.

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#### **Forward looking Statements**

This announcement may contain certain forward-looking statements including forecasts and estimates which may not have been based solely on historical facts, but rather may be based on the Company's current expectations about future events and results. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties, contingencies, assumptions and other factors, many of which are outside the control of the Company all which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Forward looking statements are inherently uncertain and may therefore differ materially from results ultimately achieved. The Company does not make any representations and provides no warranties concerning the accuracy of any forward looking statements or likelihood of achievement or reasonableness of any forward looking statements. Past performance is not necessarily a guide to future performance. The Company does not undertake any obligation to release publicly any revisions to any forward looking statement to reflect events or circumstances after the date of this announcement, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.







### **PRESS RELEASE**

A MEMORANDUM OF UNDERSTANDING SIGNED BETWEEN IREN AND ALTAMIN FOR THE RECOVERY OF LITHIUM FROM GEOTHERMAL BRINE IN LAZIO USING ENVIRONMENTAL FRIENDLY TECHNOLOGIES AND CIRCULAR ECONOMY PROCESSES.

### A MILESTONE IN THE SUPPLY OF CRITICAL RAW MATERIAL TO EUROPE.

Milan, March 6th 2024 - Italian multiutility IREN SpA and Australian company Altamin Limited are delighted to announce they have executed a Memorandum of Understanding regarding the development of lithium recovery from geothermal brines at Altamin's Geothermal Lithium Project in the Lazio region of Italy.

Availability of critical raw materials is key for the energy transition. **Lithium is one of the critical raw materials.** According to International Energy Agency (**IEA**) an energy system powered by clean energy technologies differs profoundly from one fuelled by traditional hydrocarbon resources. Lithium is mainly used in batteries, from smartphones to tablets, from electric cars to electricity storage. IEA estimates that an electric car has a critical mineral content of over six times that of a conventional car, of which lithium represents on average around 9 kg in weight. In particular, the demand for lithium batteries is expected to rise, globally, to around 4,700 GWh in 2030 with a growth rate of 27% per year (+ ~six times compared to 2022 demand) and mobility will represent over 90% of demand.

The European Union and Italy are highly dependent on foreign imports for lithium supply. Today, the greatest part of global lithium production comes from Australia, Chile and China, considering domestic production and foreign investments, controls 24% of it. China's position becomes dominant if you move up the supply chain to refining, where it holds more than half of global capacity. Only around 1% of global supply is produced in Europe (Portugal). Therefore, to ensure a sustainable energy transition, it is vital that Italy and Europe develop their own lithium supply capabilities, for example through recycling, enhancing the permitting processes and providing financing.

"Lithium appears in the list of 34 critical raw materials surveyed by the European Commission" says **Luca Dal Fabbro**, executive chairman of IREN SpA "and is also included in the 17 that can be classified as strategic. The Italian requirement for this element, for manufacturing chains linked to the energy and digital transition, is estimated to grow by 2040 up to 15 times compared to that of 2020. Hence the interest of Iren, a company at the forefront in the recovery of critical raw materials, in taking an active part by making its know-how available. The project

with Altamin is among the first European projects to connect industrial needs and circular economy processes: our strong experience in this field will be able to provide strategic and valuable support".

**Altamin** is a listed company that is headquartered in Perth, Western Australia that has been active in Italy for over a decade focused on the identification, assessment and development of strategic mining projects in Italy. The **Lazio Geothermal Lithium Project** is related to six granted exploration licenses (Galeria, Campagnano, Melazza, Cassia, Sabazia and Sacrofano) for the recovery of Lithium, and potentially other valuable strategic minerals from geothermal brines.

**IREN Spa** is one of the largest multiutility companies in Italy. IREN is already active in **electronic waste recycling** and is currently investing in **recycling of critical raw material** from waste from electrical and electronic equipment. Iren has particular skills in water and wastewater treatment, recycling and renewable energy production.

Iren and Altamin believe that they collectively possess the necessary complementary skills and resources to develop the Lazio Geothermal Lithium Project.

Geothermal brines are salty water, at a temperature generally between 100 and 300°C with a high concentration of salts. Such as lithium, in the form of chloride, sulphate or carbonate dissolved in water. These brines are generally intercepted in geothermal areas, where a thermal anomaly is active. The water circulating underground dissolves the salts from the surrounding rocks and therefore leads to the formation of these brines with high concentrations of metals.

"Extracting lithium from geothermal brines has several advantages over conventional methods, namely mining and evaporation in lithium ponds" says Alexander Burns, Non-Executive Chairman of Altamin. "The first advantage is the emission balance: the process relies on normal geothermal operations and produces savings in carbon dioxide emissions into the atmosphere. A further advantage is represented by the use of the geothermal energy, which is considered to be sufficient to power the subsequent refining steps without requiring supply from additional energy sources. Furthermore, high quantities of water and large areas are not required for processing, as is required by lithium ponds in the evaporation process as currently used in "The Lithium Triangle" in South America. All these factors should reflect positively on the final production economics, another strong point of lithium obtained from geothermal brines with the potential to have substantially lower cost than conventional processes."

The area on which Altamin has obtained research permits, in the 1970s, was already the subject of exploration in order to evaluate its potential for the production of geothermal energy. It was precisely from the analysis of those waters that a high concentration of lithium emerged, on which Altamin and Iren, with leading international specialists in the field, now intend to study its potential and recovery methods.