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MIDCAP

EQUITY RESEARCH

ARVERNE GROUP ACT

ANALYSIS FOCUS

BUY

TP 9.5€

Up/Downside: 133%

Favorable momentum for lithium

A pioneer in geothermal lithium in France, Arverne benefits from a strategic positioning in this critical resource. The company is well-placed to play a key role in European sovereignty, supported by partners and shareholders providing technological and financial agility. With a competitive advantage due to advancements in Direct Lithium Extraction (DLE), Arverne is poised to capitalize on market opportunities. The lithium market is expected to face a supply deficit as early as 2026, with this imbalance set to deepen by the end of the decade. This situation will favour players capable of bringing new production capacities online, further strengthening Arverne's strategic position in the European lithium market.

Lithium price volatility challenges economic viability of projects

Marked by an overproduction phase (in China and Australia), the lithium market has undergone an adjustment period, leading to a sharp decline in lithium carbonate prices (-80% in 2023, and -22% in 2024). Long-term forecasts remain positive, with strong demand expected due to the rise of electric vehicles and energy storage systems. However, prolonged low prices have led to project cancellations and delays globally, making profitability increasingly difficult and rendering their exploitation economically unviable. Advanced indicators suggest confidence in a market recovery, with stock levels dropping after their peak in August 2024, production capacities shrinking, and demand starting to rise again.

French lithium well-positioned to be competitive

The evolution of the lithium market is pushing major industrial players to secure their supply chains through upstream investments. Recently, Rio Tinto and ExxonMobil have taken stakes in lithium extraction from brines, while Middle Eastern players are strengthening their presence by leveraging their financial power. In this context, the current wave of mergers and acquisitions driven by the desire for greater integration in the lithium value chain makes Arverne a prime target (quick access to a portfolio of 9 PERs to be developed and an advantageous geothermal lithium extraction technique, currently being adapted to Alsace brine).

Attractive valuation conditional on project execution

Arverne's business model relies on a dual growth lever, combining geothermal heat and lithium production. In light of the successful development of its geothermal lithium project, the current valuation could offer significant revaluation potential, supported by a more favorable market context in the medium term. We reaffirm our Buy recommendation and target price of €9.50.

TP ICAP Midcap Estimates	12/23	12/24e	12/25e	12/26e
Sales (m €)	10.1	12.4	20.8	28.2
Current Op Inc (m €)	-13.8	-19.0	-25.5	-28.5
Current op. Margin (%)	na	na	na	na
EPS (€)	-1.50	-0.46	-0.62	-0.21
DPS (€)	0.00	0.00	0.00	0.00
Yield (%)	0.0	0.0	0.0	0.0
FCF (m €)	-35.6	-63.0	-92.8	-119.9

Valuation Ratio	12/24e	12/25e	12/26e
EV/Sales	6.8	8.5	10.6

Source: TPICAP Midcap

Research partially paid by the Issuer

Key data	
Price (€)	4.1
Industry	Utilities
Ticker	ARVEN-FR
Shares Out (m)	34.787
Market Cap (m €)	141.9

Source: FactSet

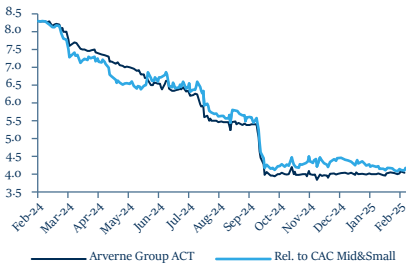
Ownership (%)	
ex-associés d'Arverne+Fondateurs	64.1
ADEME Investissement	9.3
Renault	8.3
Free float	18.4

Source: TPICAP Midcap estimates

EPS (€)	12/24e	12/25e	12/26e
Estimates	-0.46	-0.62	-0.21
Change vs previous estimates (%)	na	na	na

Source: TPICAP Midcap estimates

Performance (%)	1D	1M	YTD
Price Perf	1.0	2.0	1.5
Rel CAC Mid&Small	1.7	-1.0	-3.8



Source: FactSet

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Description

Created in 2018 and listed on Euronext since September 2023 following a reverse merger with the SPAC Transition, Arverne has equipped itself with the means to achieve its ambitions of becoming a major player in the energy transition by capitalizing on the enormous potential of geothermal energy and lithium extraction from geothermal brines.
Geothermal energy, which allows the capture of heat from the Earth's mantle, offers the advantage of being a natural, renewable, and decarbonized energy source (with very low CO_2 emissions and a minimal land footprint). It is also non-intermittent, local (utilizing resources near where they are needed), and sovereign, contributing to France's energy independence.
Drawing on expertise acquired from drilling in the oil industry, the group has developed geothermal well drilling activities. These activities will enable the operation of geothermal plants in France by 2026, and by 2028, they plan to extract geothermal lithium, which will be used primarily in the manufacture of electric vehicle batteries.

What are the upcoming catalysts that could influence the stock's performance?
- Lithium price fluctuations: Direct impact on the profitability and valuation of the project.
- New commercial or technological partnerships.
- Obtaining new PERs (Exclusive Research Permits): Expanding potential extraction zones, thereby increasing the project's development prospects.
- Validation of the technical and economic performance of DLE (direct lithium extraction) on a large scale: The success of this phase would demonstrate the operational viability of DLE, enhancing the project's credibility and boosting investor confidence in the long-term economic potential.
- The results of the final feasibility study (DFS) will be a decisive catalyst for Arverne, validating not only the CAPEX but also the project's main financial assumptions. Although the extraction technology is a key factor, it is only part of the overall challenge. Confirmation of these critical elements will bolster investor confidence and should support the stock's valuation.
- Changes in electric vehicle demand projections, one of the main outlets for high-grade battery lithium (strengthening the group's revenue visibility).

SWOT Analysis

Strengths

- Strong shareholder base providing financial flexibility for the project. Local anchoring and support from local officials and authorities. Well-diversified portfolio of permits.
- Partners providing technical credibility and financial strength.
- Long-term contract with Renault.
- Presence across the entire value chain of geothermal heat and lithium, including drilling.

Weaknesses

- Activities with very high capital intensity.
- Validation of the technical and economic performance of the direct lithium extraction method to be carried out on a large scale under real conditions.

Opportunities

- Potential partnerships with several automobile manufacturers for new projects.
- According to various analyses, the global lithium market could show a deficit of about 1 Mt (~ 25%) by 2030, while global demand is expected to quadruple by 2030 to reach 4 Mt.
- Favorable trends: economic sovereignty, reindustrialization, decarbonization.

Threats

- Increasing volatility of lithium prices with the entry of new capacities into the market.
- The Capex and Opex associated with geothermal lithium production may turn out to be higher than initial forecasts, leading to increased financing needs. The results of the definitive feasibility study (DFS) will determine the final costs.
- Risks of seismic activity and other geomechanical disturbances.
- Delays in executing the 2031 roadmap, postponing the realization of positive FCF.

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Lithium price volatility challenges sector profitability

The lithium industry is evolving in an increasingly complex environment, characterized by persistent overcapacity and heightened competition, leading to significant price volatility. This volatility impacts the economic viability of lithium extraction and production projects. At the same time, geopolitical tensions are amplifying the risks associated with dependence on imports, compromising the security of lithium supply amid growing demand for electric vehicle (EV) batteries and energy storage systems.

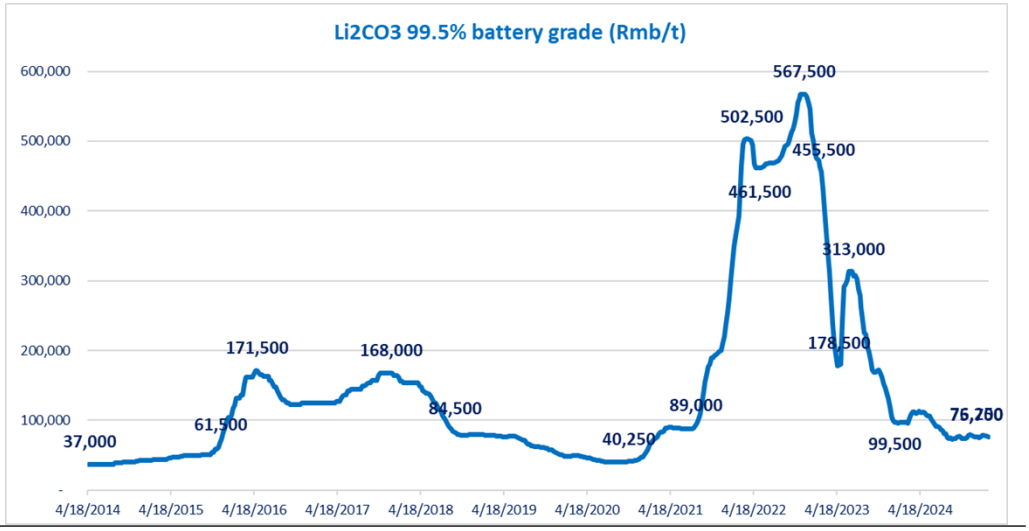
In 2024, electric vehicles are expected to account for 79% of lithium battery demand, representing a sharp increase from 44% in 2015 and 73% in 2020. By 2035, this share could exceed 94%. Meanwhile, energy storage systems are projected to account for 16% of the demand in 2024 (up 55% due to the rise of renewable energy sources and the drop in battery cell prices).

After an 80% decline in 2023, the average price of lithium carbonate (LCE, Lithium Carbonate Equivalent) has further decreased by 22% in 2024. This drop can be primarily explained by two factors:

- A lithium supply still significantly exceeding demand (+54 kt according to BMI)
- The overcapacity of EV battery production in China—stimulated by government subsidies that led to an excess supply in the market—forcing producers to lower prices across the entire supply chain.

In parallel, although there is growth compared to 2023, the demand for electric vehicles has been weaker than expected in 2024, further exacerbating the situation.

Figure 1 Evolution of Lithium Price (Battery Quality) in RMB/ton



Source : SMM, TP ICAP

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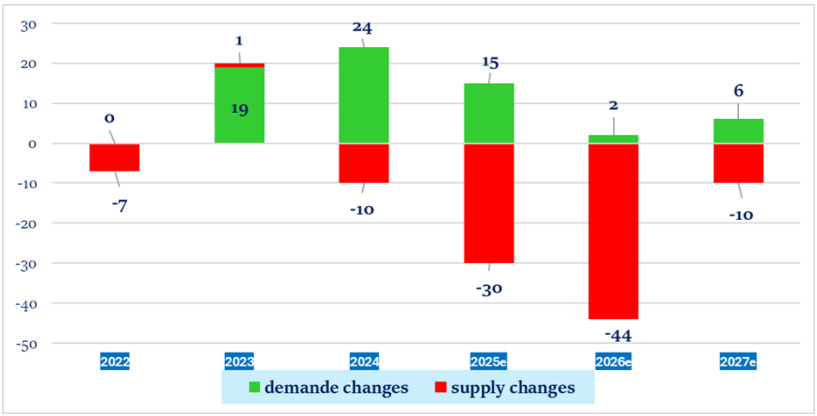
Contraction of lithium supply amid unsustainable production costs

The significant increase in supply observed between 2021 and 2024 was mainly driven by hard rock extraction projects in Africa, China, and Australia, which reached full capacity by mid-2024. Chinese lepidolite mines have been particularly vulnerable due to high production costs, estimated at around $13,000 per ton, or even higher for lower-grade deposits. Although production increased earlier in the year due to prior investments, supply significantly decreased in October 2024, hitting a historic low.

As a result, lithium extraction and production projects have recently been suspended, canceled, or postponed, with several sites drastically cutting back production due to marginal production costs[1] ranging from $11,000 to $18,000 per ton for battery-grade lithium carbonate. At these price levels, profitability becomes extremely difficult to achieve, effectively rendering operations economically unviable.

Meanwhile, the expansion pipeline has been considerably reduced due to supply cuts, temporary halts, or project cancellations.

Figure 2 : Changes in BMI predictions between their Q4 and Q3 2024 forecast (in Kt)



This comparison highlights how lithium supply has evolved from one quarter to the next following adjustments in mine production..

Source : Benchmark Minerals Intelligence (BMI), TP ICAP

The initial surplus anticipated for 2024 and 2025 has now been revised downward, leading to a more balanced market until 2029, followed by an expected widening of the deficit.

- On the demand side, projections have been raised for the next decade, with growth driven by China in the short term (+5% in 2024), supported by subsidies and competitive EV prices. In the long term, demand could reach 7 TWh by 2040, bolstered by the rise of energy storage (+55% year-on-year) and cost reductions, with global battery storage capacity estimated to be 450 GWh by 2030.

[1] *As with all commodities, the long-term price of lithium is determined by its marginal cost of production, while its floor price corresponds to the minimal operational cost that allows producers to cover their current expenses.*
When the market is balanced, with stabilized stocks and excess capacity, the price of lithium converges toward the marginal cost. In this case, the minimum price enables the least competitive producer to cover their costs and ensure the renewal of their reserves.
Conversely, in a situation of overproduction, with high stock levels and excess supply, prices tend to move closer to the "Marginal Cash Cost," which represents the threshold needed to cover only the operational expenses of producers.
Marginal Cost of Production: Represents the cost of production for the last producer needed to balance supply and demand (including Opex, Capex, taxes, and depreciation). In other words, it is the minimum price at which a new producer could enter the market in a viable manner over the long term.
Marginal Cash Cost: The minimum cost that allows active producers to continue operating without immediate loss. It only covers direct operational costs (extraction, processing, labor) without accounting for initial investments or reserve replenishment.

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- On the supply side, the persistence of low prices has led to project adjustments worldwide, with financing constraints resulting in cancellations and delays. This situation weighs on medium-term prospects, while existing production and expansions in Australia and China face notable reductions in the short term.

In total, for all the projects mentioned in the table below, production cuts amount to around 200,000 tons, marking a significant slowdown in the global lithium market.

Figure 3 Lithium production projects

project name	company	country	type	status
Fenix	Arcadium Lithium	Argentine	Brine	Delays in the expansion plan
Mt Cattlin	Arcadium	Australie	Hard rock	Production reduction
Greenbushes	IGO	Australie	Hard rock	Production reduction
Wodgina	Mineral Resources	Australie	Hard rock	Delays in the expansion plan
Mt Marion	MinRes/Ganfeng	Australie	Hard rock	Production reduction
Rincon	Argosy Minerals	Argentine	Brine	Suspended
Finniss	Core Lithium	Australie	Hard rock	Suspended (high stock levels)
Pilgangoora	Pilbara	Australie	Hard rock	Suspended
Bald Hill	Mineral Resources	Australie	Hard rock	Suspended
Jianxiawo	CATL	Chine	Hard rock	Suspended (high stock levels)
Dachadan	Jinkunlun	Chine	Hard rock	Suspended
Da Qaidam	Xinghua Lithium	Chine	Brine	Suspended
Da Qaidam	Wanli New Energy	Chine	Hard rock	Suspended
Xinjiang	JV CATL + Jiangxi	Chine	Brine	Suspended
Savannah Resources	Savannah Resources	Portugal	Hard rock	Partially suspended (exploration work)
Bikita	Sinomine	Zimbabwe	Hard rock	Lower exports, petalite line suspended
Arcadia	Huayou	Zimbabwe	Hard rock	Lower petalite production (due to high stock levels)
Sabi Star	Chengxin	Zimbabwe	Hard rock	Revised estimate
Aurora	Northvolt	Portugal	others	Canceled: the refinery is expected to produce 31 kt of lithium hydroxide by 2030 (~6% of European supply in 2034)
Sonora	Ganfeng Lithium	Mexique	Pegmatite	Canceled
Kachi	Lake Resources	Argentine	Brine	New project (initially planned for 2024) delayed and
James Bay	Arcadium Lithium	Canada	Hard rock	Slowdown in development

***Lithium-rich brines**: Primarily located in South America (the lithium triangle: Argentina, Bolivia, Chile). These deposits are found in salt basins (salars) where lithium is extracted through evaporation. This method is less costly but heavily dependent on climatic conditions and water availability.*

***Hard rocks (such as spodumene**): Mainly mined in Australia, China, and Canada. This extraction is faster than brine extraction and less dependent on weather conditions, but it is more expensive due to the energy-intensive processes needed to transform the ore into a usable product.*

***Lithium pegmatite**: Forms in the final stages of granite magma crystallization, when fluids rich in volatile elements (water, boron, fluorine) promote the growth of large crystals. Pegmatites are a key source of lithium for manufacturing lithium-ion batteries, used in electric vehicles (EVs) and electronics. Unlike lithium brines (extracted from salt lakes in South America), pegmatites offer faster processing and better purity, although their extraction is more expensive.*

Source : Companies, TP ICAP

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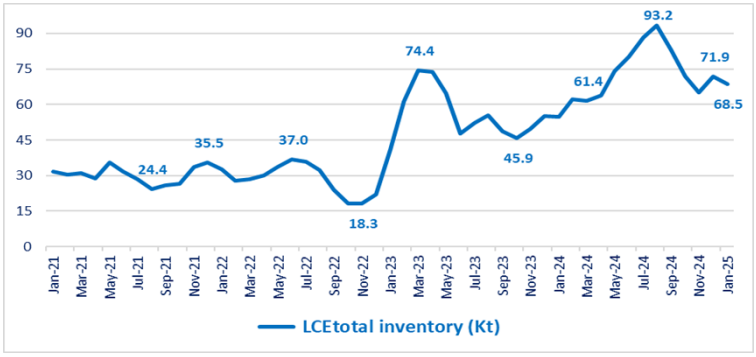
Green indicators for betting on a lithium price rebound

The prospects for a lithium price recovery are gradually taking shape, with several key indicators signaling stabilization and potential rebound starting in H2 2025. The strong demand forecast for lithium should support higher prices, thus ensuring better economic viability for market players.

Decrease in surplus stocks

After reaching high levels in 2024, lithium stocks have decreased by 27% since the peak observed in August of the same year. This reduction is a positive sign, indicating that the accumulated lithium surplus is beginning to dissipate, thereby facilitating the market's rebalancing and allowing for a potential price recovery in the second half of 2025.

Figure 4 : Monthly lithium carbonate stock in China from 2021 to early 2025



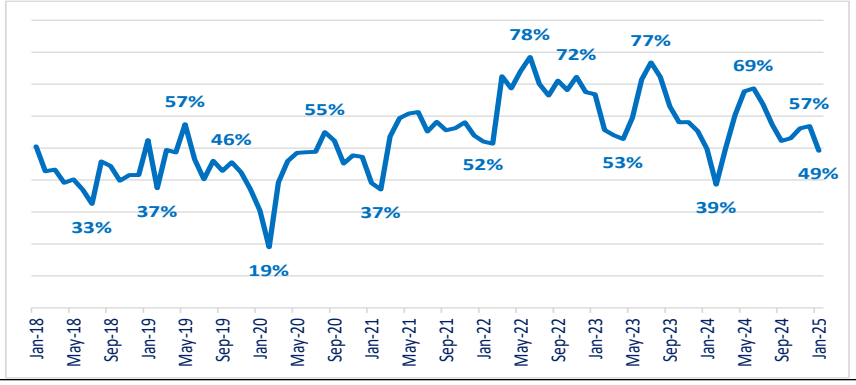
Source : SMM, TP ICAP

Decrease in lithium production plant utilization rates

In China, an improvement in the utilization rates of battery producers is expected between 2024 and 2026, along with an expanding order book for equipment manufacturers, signaling a resurgence in activity within the sector. This momentum should strengthen the demand for lithium, thus exerting upward pressure on prices.

The massive supply surge from hard rock projects now seems to be behind us, with the ramp-up phase completed and the pace of capacity additions slowing down. This stagnation in supply, coupled with production cuts in some mines due to low prices, should contribute to market stabilization and create a favorable environment for a price rebound in the coming years. Notably, the utilization rates of lithium refining and lithium carbonate production plants in China reached 49% by the end of January 2025.

Figure 5 : Utilization rate of LCE production capacity in China



Source : SMM, TP ICAP

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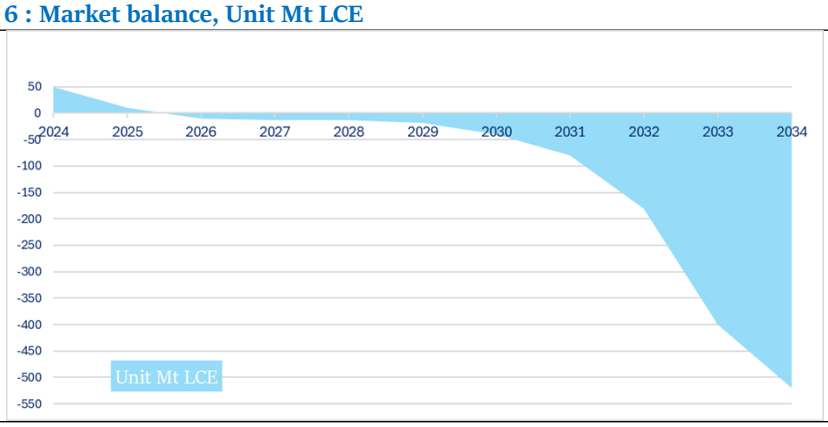
Sustained demand for lithium carbonate

In 2024, the global supply of lithium is estimated at 1.18 Mt LCE, with demand reaching 1.13 Mt LCE. The increase in supply is largely driven by new projects and expansions of existing mines[2], indicating continued investment in the sector despite challenging market conditions.
Fueled by the needs of electric vehicles (EVs) as well as energy storage, global demand for lithium is projected to reach 2.6 Mt LCE by 2030, marking a 142% increase (+1.62 Mt LCE) compared to 2024, with an average annual growth rate of 10% from 2024 to 2040 (according to BMI forecasts). European demand is expected to follow this trend, with projections of 1,200 kt/LCE by 2040, while the supply of LCE is expected to stabilize at 600 kt LCE by 2033, creating a significant deficit (-470 kt LCE). This deficit is further exacerbated by GALP's withdrawal in Q4 2024, affecting global supply. Given this anticipated European deficit, Arverne's positioning, with its lithium extraction technique (DLE), seems particularly relevant.

Figure 6 : Market balance, Unit Mt LCE

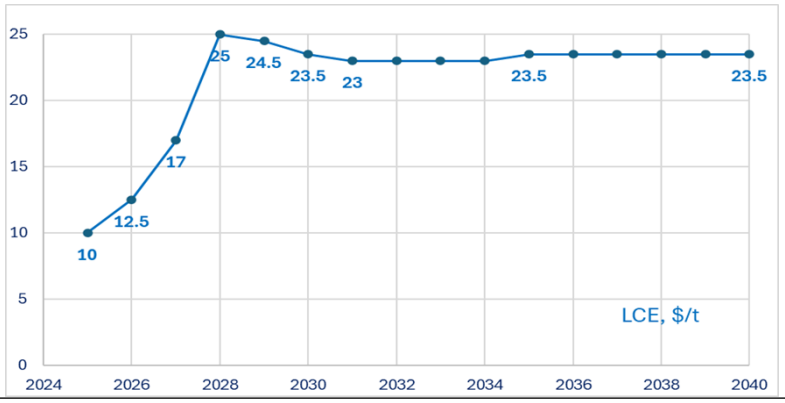


Source : BMI, TP ICAP

Towards a lithium price recovery starting in 2026

BMI's latest analysis (Q4-24) highlights improving prospects for lithium carbonate prices. Notably, this price rebound is now expected to occur two years earlier than initially forecast, beginning in 2026 and reaching a plateau of $23-$23.5 per ton by 2030, after a peak of $25 per ton in 2028. However, for 2025, lithium carbonate prices for battery-grade material are expected to remain moderate, ranging from $9.7/kg to $10.4/kg, before showing an upward trend starting in H2 2025. In 2025, producers with higher production costs are expected to continue reducing their output to avoid operating at a loss, which should help stabilize prices. From 2026 to 2028, the market should gradually rebalance, leading to higher prices due to a tightening of supply.

Figure 7: Forecasted evolution of battery-grade lithium prices from 2025 to 2040



Source : SMM, TP ICAP

[2] *CATL / Jianxiawo +26 kt ; SQM / Salar de Atacama +25 kt Pilbara /Pilgangoora +25 kt ; MARBL / Wodgina +23 kt*

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What will be the impact of these trends on Arverne?

The improvement in leading indicators after the significant downturn in 2023 and 2024 (decline in lithium prices, high stock levels) makes us confident about Arverne's prospects for achieving profitable growth. Its business model is particularly sensitive to lithium price developments, which currently show unfavorable short-term trends due to an increase in supply and stock accumulation—primarily due to the end of subsidies in China and the ramp-up of production in Africa.

The price is hovering around €10/kg, well below the management's target price of €25/kg. However, we anticipate that lithium produced in Europe with a limited carbon footprint will benefit from a premium compared to Asian reference prices. European battery manufacturers, in particular, will have a strong economic incentive to favor local sources, such as Arverne's, in order to meet environmental and sovereignty requirements (European battery passport).

This points to an improvement in medium-term projections for LCE prices compared to our scenario as outlined in our initiation study on Arverne dated October 17, 2024, which would allow for the revaluation of the group's geothermal lithium activity. In our valuation of Lithium de France, we have assumed a lithium price of $20/kg, while BMI's forecasts indicate a price of $22.5/kg.

It is worth noting that this price level might be cautious, as lithium extracted from Arverne's geothermal brines is of battery-grade quality, and the balance between supply and demand could differ.

For reference, Lithium de France aims to produce 27K tons of lithium carbonate after the results of the PFS[3] study (before those of the DFS), with 5K tons already secured with Renault.

[3] 3 PFS : Pre-Feasibility Study
3 DFS : Definitive Feasibility Study

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The rise of lithium confirmed by a wave of investments and Mergers & Acquisitions

Intensification of mergers and acquisitions in the lithium sector

Mergers and acquisitions (M&A) activity in the lithium sector is expected to continue, driven by several market dynamics. The anticipated measures from the Chinese government to stimulate domestic demand in 2025 could improve visibility for 2026 and support sector growth. In parallel, the decline in interest rates in Australia, China, Europe, and the United States would facilitate project financing, creating a more favorable investment environment.

The evolution of lithium prices is also a key factor. A gradual recovery, expected in H2 2025, could encourage industry consolidation, prompting some players to secure their supplies or strengthen their market position. In this context, several countries are seeking to reduce their dependence on China, which dominates lithium refining with 60% of global capacity, potentially favoring diversification strategies and the emergence of new regional players.

Additionally, the growing interest of major mining groups in lithium, such as Rio Tinto, reflects a desire to broaden their exposure to strategic metals. This trend could accelerate consolidation activities, especially as the market fragmentation and the presence of numerous small producers create acquisition opportunities. Sector concentration appears to be a potential lever for streamlining costs and ensuring greater supply stability.

The lithium market evolution is not limited to consolidation among producers. The acquisition of technologies, particularly in the United States, has become a major strategic focus, especially in the field of Direct Lithium Extraction (DLE). This approach is gaining increasing interest due to its potential to improve yields and reduce the environmental footprint of projects, making some assets more attractive to investors.

Moreover, Middle Eastern actors, whether public or private, are intensifying their presence in the sector. Benefiting from privileged access to capital, these investors are looking to get more involved in the lithium supply chain with a dual ambition: diversifying their strategic assets and strengthening their ties with the European market. Their geographic positioning is an asset, facilitating exports to Europe, where lithium demand is set to grow with the development of electric vehicles and energy storage systems.

The giants of the oil and gas industry, such as ExxonMobil and Saudi Aramco, are also showing an increasing interest in the lithium market. Seeking diversification beyond oil, Saudi Aramco recently formed a joint venture with Ma'aden, the Middle East's mining leader, to explore and exploit lithium. Meanwhile, ExxonMobil is preparing for a strategic shift into lithium extraction, with production expected to start in 2027, leveraging its expertise in exploration and underground extraction.

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Recent transactions highlight a floor for lithium sale prices

Several large transactions in recent months highlight the confidence of market players in the long-term potential of this resource, essential for the energy transition.

In early October 2024, Rio Tinto acquired Arcadium[4] Lithium for $6.7 billion (Enterprise Value of $7.7 billion), marking the entry of large diversified mining groups into the lithium sector. The valuation (EV/ton) implicitly suggests a lithium price around $20/kg. This acquisition, the third in three years, would enable Rio to reach 208 kt LCE by 2030, accounting for approximately 5% of global supply.

Rio Tinto is actively pursuing acquisitions in lithium, particularly in North America and Australia. The company already holds strategic assets, such as the Rincon project in Argentina, acquired for $850 million in 2022. In Europe, Rio Tinto owns the Jadar project in Serbia but remains cautious due to political uncertainty surrounding the implementation of this locally contested project. To secure long-term lithium sources, Rio Tinto invested $2.5 billion in Rincon (the project aims for a capacity of around 60 kt/year by 2028). Located in Argentina's "lithium triangle," it will use DLE technology (Capex $44,000/t LCE + operational costs $6,000/t LCE).

At the same time, Sayona Mining and Piedmont Lithium announced an equal (50/50) merger to create a more competitive North American producer, with a combined market capitalization of approximately $623 million. Australian Pilbara Minerals acquired Latin Resources for an equity value of $369 million to take control of the flagship Salinas project in Brazil.

Finally, Eramet fully took control of its Centenario lithium project in Argentina by purchasing the 49.9% stake held by Tsingshan in Eramine Sudamérica for $699 million.

Integration of major industrials into the lithium supply chain

The lithium market is evolving into a new phase of structuring, marked by the gradual entry of large industrial groups seeking to secure their supplies of strategic metals. Rio Tinto and ExxonMobil, in particular, are investing heavily in brine extraction, a key resource to meet growing demand while diversifying supply sources.

At the same time, Middle Eastern actors are increasing their engagement in the sector, benefiting from their access to capital and proximity to Europe to establish themselves as strategic players in the value chain. This growing interest is fostering the rise of new, more efficient extraction technologies that meet environmental requirements.

Among these, Direct Lithium Extraction (DLE), especially the adsorption method (A-DLE), stands out due to its cost-effectiveness, scalability, and the quality of the final product. Already chosen by players like Arverne and Vulcan, this technology currently represents 10% of the market and is expected to grow as ongoing projects industrialize. Standard Lithium and Equinor (shareholder of Lithium de France, Arverne) are mutually engaged in a DLE pilot plant, backed by funding from the U.S. Department of Energy ($225M) and Equinor ($30M + $130M to come).

Moreover, the joint venture between Lithium Americas and General Motors (62%/38%) for the development of the Thacker Pass project in Nevada marks a new step in the integration of major industrial players into the lithium supply chain. This project benefits from a $2.26 billion loan from the U.S. Department of Energy.

4 *For the record, Arcadium was the result of the merger between Allkem and Livent in early 2024, which created a vertically integrated global lithium producer.*

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With an investment of $625 million (for a 38% stake), GM secures a strategic supply of battery-grade lithium carbonate, reducing its exposure to imports and consolidating the emergence of a North American lithium industry. This announcement aligns with a trend where major industrial players, including automakers and energy groups, take an active role in lithium extraction and processing.

Volkswagen and PowerCo's $48 million investment in Patriot Battery Metals to secure a supply of 100,000 tons of spodumene annually for 10 years marks a key step toward vertical integration in the lithium value chain. It guarantees a secured supply for its gigafactories in North America and Europe. This project, the eighth-largest global lithium pegmatite deposit, offers long-term visibility on this critical raw material in the face of rising demand (+20% per year) and Asian giants..

What opportunities does this represent for Arverne?

The current evolution of the lithium market presents positive prospects for Arverne, given the sector's consolidation, the rise of Direct Lithium Extraction (DLE) technologies, and new investment dynamics. For Arverne, such initiatives confirm the strategic importance of lithium and industrial sovereignty, which require the structuring of local production and refining ecosystems.

The rise of major groups (from merely depending on suppliers to adopting a vertical integration strategy), as evidenced by Volkswagen and PowerCo's investment in Patriot Battery Metals, highlights the critical need for access to key raw materials in response to rising demand and volatile markets.

Recent acquisitions by Rio Tinto, Eramet, and GM demonstrate a consolidation trend in the market, with asset valuations implying confidence in the long-term potential of lithium. This trend opens two main opportunities for Arverne:

- Securing strategic financing

The increasing investments in lithium suggest that the market anticipates a rise in prices and growing demand. By highlighting the competitiveness of its lithium produced via DLE, Arverne could attract funding from specialized funds. Moreover, successive capital increases and investments from industrial players have enabled its German counterpart (Vulcan Energy) to finance its project development.

- Playing an active role in market consolidation

Arverne could become an attractive target for mining or energy groups seeking to strengthen their presence in Europe. Conversely, Arverne could forge strategic partnerships with producers who share its vision of local lithium, thereby reinforcing its position in the market.

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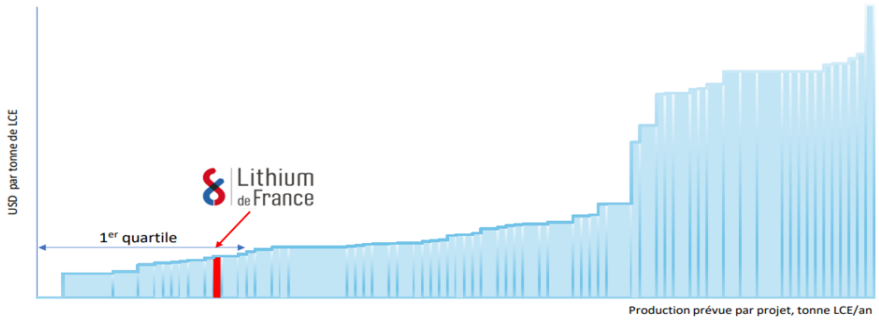
ANNEX : Lithium de France among the most competitive in terms of production costs

Lithium de France is developing a lithium extraction process from dissolved lithium in geothermal brines, using DLE (Direct Lithium Extraction) technology in partnership with Equinor. The goal is to adapt this method to the brines in Alsace. To recap, the results of the latest pre-feasibility study (PFS) have confirmed the use of adsorption technology for lithium extraction. This study affirms that the project is not only technically feasible but also economically viable, with competitive costs.

The improvement in the recovery rate, now at 91% (up from 80-85% previously), and an estimated annual production of 27,000 tons of lithium carbonate, enhance the profitability of the project compared to initial assumptions. Operating costs have also been reduced, from 5,000 €/tons of lithium hydroxide to less than 4,500 €/tons of lithium carbonate. This strengthens the competitiveness of the project in an expanding lithium market.

For comparison, at the German counterpart Vulcan, Opex is estimated at 4,022 €/tons of lithium hydroxide (LHM), with a Capex of €1.4 billion for an annual production of 24,000 tons of lithium, starting in 2027.

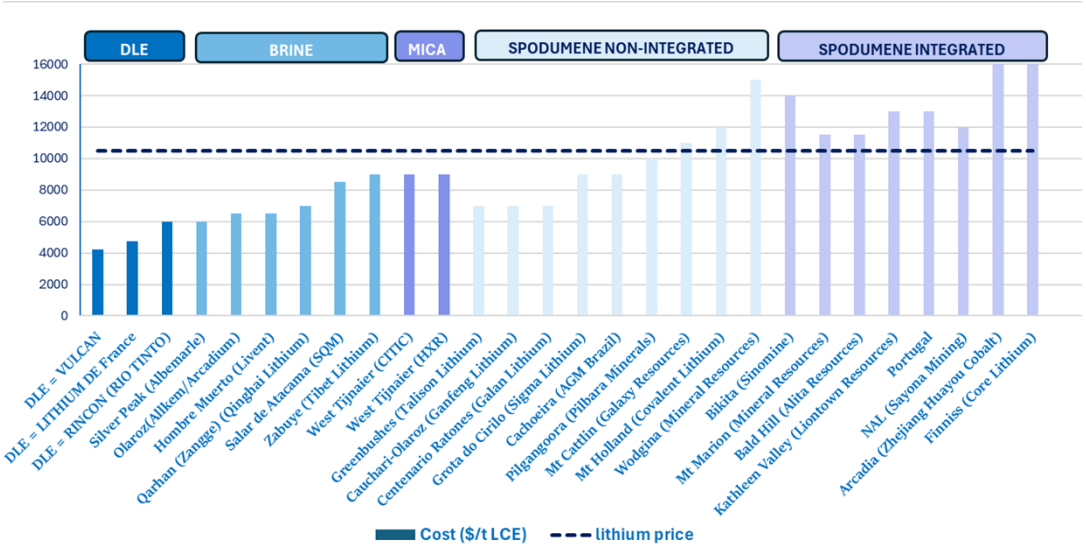
Figure 8 : Lithium de France is positioned in the first quartile of production costs, with a cost of €4,500 per ton of lithium carbonate equivalent (LCE).



Cost = Mining cost + Processing cost + Reagent cost + Transportation & storage + + General & Administrative, Energy & Labor + Maintenance, Other costs

Source : Benchmark Minerals Intelligence/BMI, TP ICAP

Figure 9 : Lithium carbonate C3 cost curve (2024)



Source : BMI, Company data, TP ICAP

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FINANCIAL DATA

Income Statement	12/21	12/22	12/23	12/24e	12/25e	12/26e
Sales	12.6	10.7	10.1	12.4	20.8	28.2
Changes (%)	180.5	-15.0	-5.8	22.9	67.7	35.7
Gross profit	11.5	9.9	9.5	10.2	17.1	24.0
% of Sales	91.5	92.8	94.3	82.7	82.0	85.0
EBITDA	**-2.2**	**-1.7**	**-16.0**	**-20.7**	**-20.2**	**-20.0**
% of Sales	-17.4	-15.9	-158.7	-166.9	-97.1	-70.7
Current operating profit	**-2.4**	**-2.7**	**-13.8**	**-19.0**	**-25.5**	**-28.5**
% of Sales	-19.1	-24.9	-137.0	-153.2	-122.8	-100.8
Non-recurring items	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	-2.4	-2.7	-13.8	-19.0	-25.5	-28.5
Net financial result	-0.0	-0.1	4.1	2.4	0.5	-4.2
Income Tax	-0.0	-0.0	1.0	1.5	3.5	4.4
Tax rate (%)	-1.6	-1.0	0.0	25.0	0.0	0.0
Net profit, group share	**-2.4**	**-1.6**	**-52.0**	**-16.0**	**-21.6**	**-7.4**

Financial Statement	12/21	12/22	12/23	12/24e	12/25e	12/26e
Goodwill	0.0	0.0	0.0	0.0	0.0	0.0
Tangible and intangible assets	8.8	11.2	58.6	105.3	172.3	263.7
Right of Use	0.0	0.0	0.0	0.0	0.0	0.0
Financial assets	0.3	0.0	0.0	-0.0	0.1	0.5
Working capital	1.3	-2.4	0.2	2.5	4.5	8.7
Other Assets	0.0	0.0	3.4	3.4	3.4	3.4
Assets	10.3	8.8	62.3	111.2	180.3	276.4
Shareholders equity group	3.1	-5.6	164.1	148.1	126.5	119.1
Minorities	0.1	0.7	14.3	12.2	11.6	-8.9
LT & ST provisions and others	0.2	0.0	2.2	2.1	2.1	2.1
Net debt	6.8	13.6	-123.8	-57.0	34.3	158.4
Other liabilities	0.1	0.0	6.1	6.4	6.4	6.4
Liabilities	10.3	8.8	62.3	111.2	180.3	276.4
Net debt excl. IFRS 16	6.7	13.6	-124.4	-57.6	33.7	157.8
Gearing net	2.1	-2.8	-0.7	-0.4	0.2	1.4
Leverage	-3.1	-8.0	7.7	2.8	-1.7	-7.9

Cash flow statement	12/21	12/22	12/23	12/24e	12/25e	12/26e
CF after elimination of net borrowing costs and taxes	-0.9	-0.4	-9.1	-15.3	-19.8	0.8
ΔWCR	0.6	-0.5	-4.5	2.2	2.0	4.2
Operating cash flow	-0.3	-0.8	-13.6	-13.0	-17.8	5.0
Net capex	1.7	5.1	22.0	50.0	75.0	124.9
FCF	-2.0	-6.0	-35.6	-63.0	-92.8	-119.9
Acquisitions/Disposals of subsidiaries	0.6	0.0	0.0	0.0	0.0	0.0
Other investments	0.0	0.0	0.0	0.0	0.0	0.0
Change in borrowings	-0.3	-1.2	-7.4	-14.6	-80.0	-95.0
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0
Repayment of leasing debt	-0.0	-0.1	-0.2	0.0	0.0	0.0
Equity Transaction	0.6	0.0	98.2	0.0	0.0	0.0
Others	1.0	2.8	0.7	4.0	5.0	6.0
Change in net cash over the year	-1.7	-6.4	52.7	-77.6	-172.8	-214.9

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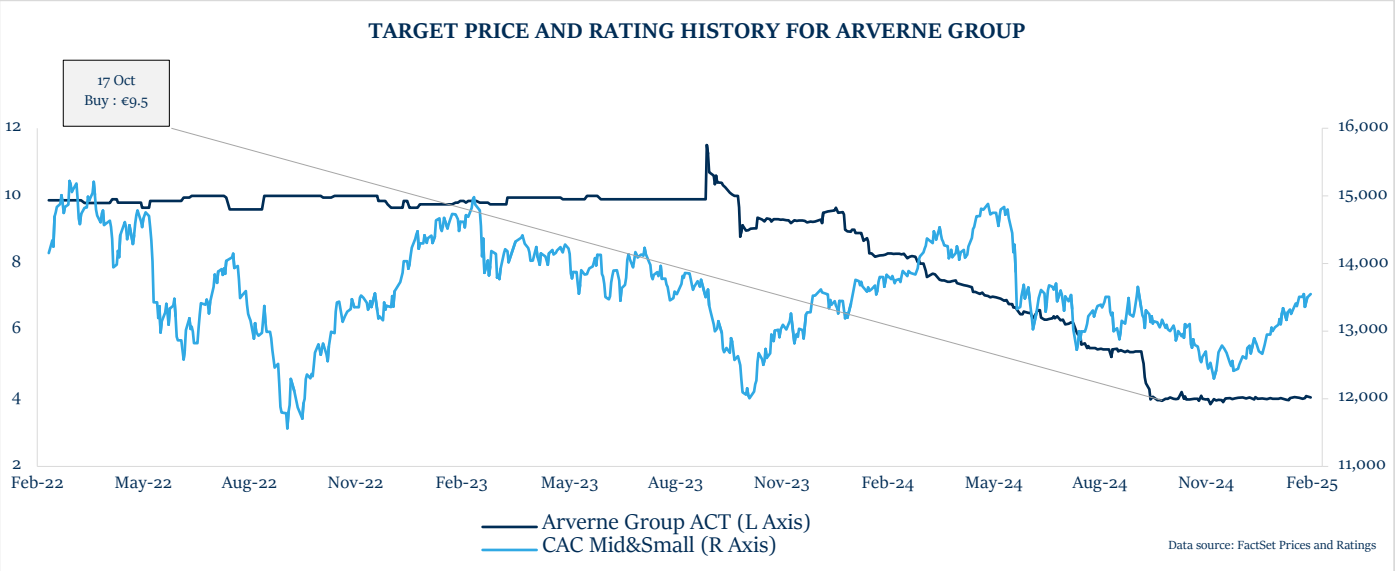
Methodology

This Report may mention evaluation methods defined as follows:
1. DCF method: discounting of future cash flows generated by the company's operations. Cash flows are determined by the analyst's financial forecasts and models. The discount rate used corresponds to the weighted average cost of capital, which is defined as the weighted average cost of the company's debt and the theoretical cost of its equity as estimated by the analyst.
2. Comparable method: application of market valuation multiples or those observed in recent transactions. These multiples can be used as references and applied to the company's financial aggregates to deduce its valuation. The sample is selected by the analyst based on the characteristics of the company (size, growth, profitability, etc.). The analyst may also apply a premium/discount depending on his perception of the company's characteristics.
3. Assets and liabilities method: estimate of the value of equity capital based on revalued assets adjusted for the value of the debt.
4. Discounted dividend method: discounting of estimated future dividend flows. The discount rate used is generally the cost of capital.
5. Sum of the parts: this method consists of estimating the various activities of a company using the most appropriate valuation method for each of them, then realizing the sum of the parts.

Conflict of Interests between TP ICAP Midcap and Issuer

G. Midcap and the Issuer have agreed to the provision by the former to the latter of a service for the production and distribution of the investment recommendation on the said Issuer: Arverne Group ACT

History of investment rating and target price – Arverne Group ACT



Historical recommendations and target price (-1Y)

Date	Analyst	Old Target Price	New Target Price	Closing Price	Old Recommendation	New Recommendation
28 Jan 25 - 07:55:14	Veneta Nikolova	€ 9.50	€ 9.50	€ 4.00	Achat	Buy
17 Oct 24 - 09:37:42	Veneta Nikolova	NA	€ 9.50	€ 3.96	NA	Buy

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Distribution of Investment Ratings

Rating	Recommendation Universe*	Portion of these provided with investment banking services**
Buy	80%	61%
Hold	15%	72%
Sell	3%	20%
Under review	2%	100%

Midcap employs a rating system based on the following:
Buy: Expected to outperform the markets by 10% or more over a 6 to 12 months horizon.
Hold: expected performance between -10% and +10% compared to the market over a 6 to 12 months horizon.
Sell: Stock is expected underperform the markets by 10% or more over a 6 to 12 months horizon.

The history of ratings and target prices for the Issuers covered in this report are available on request at https://researchtpicap.midcapp.com/en/disclaimer.

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