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MIDCAP

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ARVERNE GROUP ACT

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Geothermal Energy: Scaling Up Becomes the Next Catalyst

On 1 October 2026, we hosted a roundtable entitled *"Geothermal Energy: Building a Growth Industry Capable of Delivering Sustainable Value Creation."* French geothermal energy is entering a new phase of development. Geological potential, proven economic models and growing investor interest are creating the conditions for a meaningful scale-up. The key challenge now lies in execution, namely industrialisation, standardisation, drilling capacity expansion and administrative simplification, while the combination of heat production and lithium extraction offers an additional source of value creation.

An Industry Ready to Scale

With current annual production estimated at 6TWh, geothermal energy remains significantly underdeveloped relative to its potential. Accessible across almost all of France (97% of the territory), it addresses several structural challenges, including heat decarbonisation, reduced dependence on imported fossil fuels and the development of renewable cooling solutions. Discussions during the roundtable suggested that the main constraints are no longer technological but industrial and regulatory. Standardising studies, contracts and equipment, expanding drilling capacity and shortening permitting timelines should help transform a succession of standalone projects into a fully fledged industry capable of operating at scale. Cost reductions also appear achievable, with drilling costs historically in the €130-150/m range already trending down and expected to approach €100/m over time.

An Increasingly Attractive Asset Class for Investors

Geothermal energy is increasingly displaying the characteristics sought by infrastructure investors: long asset lives, predictable revenue streams and heat supply contracts that can extend from 20 to 50 years. Projects discussed during the roundtable typically generate IRRs of around 8% to 10%, before taking into account potential by-products such as lithium, which could potentially double project returns. Public guarantee mechanisms, the involvement of institutions such as *Banque des Territoires* and the increasing maturity of the sector are gradually reducing the perceived risk profile for financiers. The primary challenge is now to bring forward a sufficient pipeline of mature and standardised projects capable of absorbing available capital and unlocking economies of scale.

Heat and Lithium: An Additional Value Creation Lever

The combination of geothermal energy production and lithium extraction represents a significant growth opportunity, particularly in the Upper Rhine Graben. The same infrastructure can simultaneously generate heat and extract lithium, creating two complementary revenue streams. According to data presented during the roundtable, this integrated model could raise post-tax IRRs to 15.2% on an ungeared basis and 24.7% with leverage. While technological, regulatory and environmental hurdles still need to be addressed, geothermal lithium already appears to be the most significant driver of enhanced project economics and a potential differentiating factor for the French geothermal industry. For industrial players and investors alike, the question is no longer whether geothermal energy can develop, but how quickly the industry can convert a substantial opportunity set into standardised, financeable and repeatable assets. Scaling up now represents the sector's main value-creation catalyst, while geothermal lithium could provide a further acceleration to that growth trajectory.

TP ICAP Midcap Estimates	12/25	12/26e	12/27e	12/28e
Sales (m €)	18.0	14.5	25.0	46.2
Current Op Inc (m €)	-25.7	-25.9	-25.6	-21.0
Current op. Margin (%)	na	na	na	na
EPS (€)	-0.59	-0.72	-0.79	-0.62
DPS (€)	0.00	0.00	0.00	0.00
Yield (%)	0.0	0.0	0.0	0.0
FCF (m €)	-56.3	-91.2	-108.4	-94.3

Valuation Ratio	12/26e	12/27e	12/28e
EV/Sales	18.5	12.6	7.5

Source: TPICAP Midcap

Research partially paid by the Issuer

Key data	
Price (€)	6.1
Industry	Utilities
Ticker	ARVEN-FR
Shares Out (m)	42.076
Market Cap (m €)	257.5
Next event	RA 26 = mars 2027

Source: FactSet

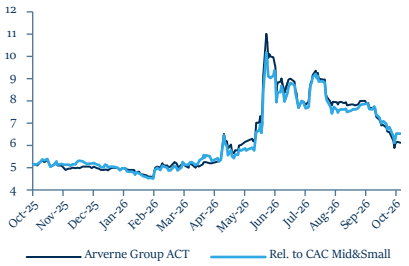
Ownership (%)	
Geogreen	25.5
Fondateurs du SPAC Transition	19.9
ADEME Investissement	9.2
Free float	16.0

Source: TPICAP Midcap estimates

EPS (€)	12/26e	12/27e	12/28e
Estimates	-0.72	-0.79	-0.62
Change vs previous estimates (%)	na	na	na

Source: TPICAP Midcap estimates

Performance (%)	1D	1M	YTD
Price Perf	-0.6	-20.5	24.9
Rel CAC Mid&Small	-1.1	-14.5	33.8



Source: FactSet

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Description

Founded in 2018 and listed on Euronext since September 2023 following a reverse merger with the SPAC Transition, Arverne has equipped itself with the resources required to pursue its ambition of becoming a leading player in subsurface-based energy transition, leveraging the substantial potential of geothermal energy and lithium extraction from geothermal brines. Geothermal energy, which harnesses heat from the Earth's subsurface, offers the advantage of being a natural, renewable and low-carbon energy source, with very limited CO_2 emissions and a small land footprint. It is also non-intermittent, local and sovereign, relying on resources located close to demand centres while creating local employment and contributing to France's energy independence.Building on expertise in drilling inherited from the oil and gas industry, the Group has developed geothermal well-drilling capabilities. In France, these activities are expected to support the operation of geothermal power plants by 2027 and the extraction of geothermal lithium from 2028, notably for use in electric vehicle battery manufacturing.

Key upcoming catalysts that could impact share price performance

-Signing of additional Heat & Cooling contracts

-Evolution of lithium prices, with a direct impact on project profitability and valuation

-New commercial or technological partnerships

-Granting of additional PERs (Permis Exclusifs de Recherche), expanding potential extraction areas and supporting future development prospects

-Q4 2026: Results of the Definitive Feasibility Study (DFS) and first reserve certification report, representing a major catalyst for Arverne by validating CAPEX assumptions as well as the key industrial and financial parameters of the project. While extraction technology is an important component, it represents only part of the overall equation; confirmation of these critical elements should significantly strengthen investor confidence and support valuation

-Evolution of electric vehicle demand outlook, one of the primary end-markets for battery-grade lithium, enhancing long-term revenue visibility for the Group

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.
- Tier-one partnerships providing technical credibility and financial strength, notably with 1) Renault acting as a long-term offtaker for geothermal lithium, enhancing the commercial visibility and bankability of the projects; 2) Equinor as both an industrial and financial partner, holding a 25% stake in Lithium de France.
- Business models underpinned by long-term contracts, with 30-year heat supply agreements and an economic life of approximately 30 years for Lithium de France projects, offering high cash-flow visibility and supporting long-term value creation.
- Presence across the entire value chain of geothermal heat and lithium, including drilling.

Weaknesses

- Capital-intensive activities, the impact of which on Arverne's financial structure is mitigated by a SPV-based development model, involving partners while retaining a majority stake, and by an infrastructure-style financing scheme predominantly supported by debt.
- Validation of the technical and economic performance of the direct lithium extraction method to be carried out on a large scale under real conditions.

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Opportunities

- Potential to secure additional lithium offtake volumes through new agreements with a broader range of value chain participants, beyond automotive OEMs alone.
- 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.
- Risk of induced seismicity and other geomechanical disturbances, inherent to deep geothermal projects; however, it should be noted that no induced seismicity was observed during the commissioning of the first well, providing an initial and reassuring operational track record.
- Delays in executing the 2031 roadmap, postponing the realization of positive FCF.

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The roundtable dedicated to accelerating the deployment of geothermal energy brought together representatives from industry, private finance, public finance and the geosciences community. Discussions focused on the conditions required for geothermal energy to evolve from a relatively niche sector into a scalable industry capable of delivering sustainable value creation for shareholders.

Alongside **Pierre Brossollet**, Founder and Chief Executive Officer of **Arverne**, the panel included:

- **Alexis Broders**, Deputy Chief Executive Officer of **RGREEN Invest** and **Geogreen** representative on **Arverne's** Board of Directors;
- **Pierre Laurent**, Deputy Regional Director for Île-de-France at **Banque des Territoires**;
- **Grégoire Viguier**, Head of Finance and Energy at **Crédit Agricole Pyrénées-Gascogne**;
- and **Frédéric Glanoy**, Director of Energy and Decarbonisation at **BRGM**.

The discussion was structured around four key themes:

- the opportunities offered by geothermal energy;
- the conditions required to deploy the technology at scale;
- the economic models and financing mechanisms underpinning project development;
- and the value creation potential arising from the combination of geothermal heat production and lithium extraction.

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Geothermal Energy: A Strategic Opportunity for Energy Sovereignty

Geothermal energy offers several characteristics that make it increasingly attractive to investors, including revenue visibility, limited exposure to energy price volatility, local value creation and significant growth potential. However, the sector's ability to scale will depend primarily on improving project economics and industrialising deployment across the value chain.

Still a Niche Energy Source, Yet Capable of Addressing Multiple Challenges

Geothermal energy represents one of the paradoxes of the energy transition. While it currently accounts for less than 1% of the energy mix, it has the potential to address several of France's and Europe's key energy challenges. The sector contributes directly to the decarbonisation of heating and cooling, notably through district heating networks and industrial applications.

Growing interest in geothermal energy is driven first and foremost by its contribution to energy sovereignty. It is a local energy source, produced and consumed domestically, supported by a value chain that is largely established in France, from geoscientific studies and resource assessments to drilling operations and equipment manufacturing.

This issue is particularly strategic given that heat represents the largest component of the country's energy consumption, accounting for almost 50% of final energy demand in France, while nearly 75% of this heat is still generated from fossil fuels, primarily imported natural gas and petroleum products. This sharply contrasts with the United States, where geothermal development is largely focused on electricity generation. In France, geothermal energy is fundamentally a heat market.

This sovereignty dimension is underpinned by substantial development potential. According to industry estimates, shallow geothermal energy for building applications alone could exceed 100TWh, significantly above current levels of utilisation.

The economic rationale is equally compelling. Geothermal energy can provide industrial users, district heating networks and other consumers with long-term contracts and energy prices largely insulated from fluctuations in gas and oil markets. For both industrial operators and investors, this visibility is a key prerequisite for accelerating sector development.

Significant Geological Potential

Available geothermal resources appear more than sufficient to support a meaningful expansion of the industry. Deep geothermal energy, typically located between 500 and 3,500 metres below ground, requires favourable geological conditions and is applicable across nearly half of metropolitan France. Shallow geothermal systems, by contrast, can be deployed across at least 95% of the territory through the use of aquifers or geothermal boreholes.

The gap between geological potential and current deployment remains considerable. While geothermal energy production currently stands at approximately 6TWh per year, the exploitable resource base is estimated to exceed 100TWh.

This underpenetration explains the ambitions outlined in France's third Multiannual Energy Programme (PPE3). By 2035, public authorities are targeting a fourfold increase in deep geothermal production and a fivefold increase in shallow geothermal output.

CONSUMPTION IN 2022 AND PRODUCTION TARGETS IN TWh	2022	2030	2035 Low Scenario	2035 High Scenario
SHALLOW	3.2	10	15	18
DEEP GEOTHERMAL ENERGY	2.2	6	8	10

Source : www.economie.gouv.fr

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From an investor perspective, the sector increasingly displays the characteristics required to attract capital. Geothermal assets benefit from particularly long operating lives, typically ranging from 20 to 40 years, and are supported by long-term heat supply agreements with high-quality counterparties such as municipalities, social housing providers and industrial customers. Once connected to the network, end-users benefit from a high level of supply security and predictable energy costs, further enhancing the economic resilience of projects.

The ability to extract and monetise critical minerals, particularly lithium associated with certain geothermal resources, also strengthens the strategic appeal of the sector in the context of the ongoing electrification of the economy.

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All the Pieces Are in Place, What Remains Is Scaling Up

The key challenge facing geothermal energy is no longer proving the relevance of the technology but industrialising its deployment. Resources have been identified, applications are well understood and business models have been validated. The main constraints now lie in industry organisation, project standardisation, industrial capacity and permitting timelines rather than technological limitations.

Geological Risk Is Becoming Increasingly Manageable

Contrary to a still widespread perception, the primary obstacle to geothermal development is no longer scientific or technological in nature. Thanks to the work carried out by BRGM and decades of data collection, geothermal resources are now extensively mapped[1]. While each project still requires site-specific studies, the tools used to identify and characterise resources are now well established.

This maturity is already visible at scale. France currently has 54 deep geothermal installations in operation, supplying district heating networks that serve close to one million residents. Most of these facilities exploit the Dogger aquifer, located between 1,000 and 2,000 metres below ground, where temperatures typically range from 50°C to 80°C, enabling competitively priced heat production for urban heating networks. Historically concentrated in the Paris region, development is gradually expanding as recent mapping programmes such as Géoscan extend geological coverage towards the western and southern parts of the region.

Shallow geothermal energy also illustrates the sector's growing momentum. France counted approximately 209,000 installations in 2024, nearly 98% of which were residential systems, generating close to 4.8TWh of heating and cooling energy during the year.

The challenge now lies less in resource availability than in market adoption. Geothermal energy remains insufficiently integrated into the energy planning processes of municipalities, industrial users and certain investor groups. Future growth will depend as much on regulatory visibility, financing mechanisms and drilling capacity as on further technological advances.

Standardisation: The Key to Scaling Up

The transition towards a mass market requires moving beyond a project-by-project approach and adopting a fully industrialised model. Standardisation must extend across the entire value chain, including studies, drilling operations, equipment, contractual structures, operations and financing.

The challenge is also economic. Drilling costs, currently estimated at €130-150 per metre, could fall below €100 per metre through scale effects and improved utilisation of drilling equipment. Projects already generate IRRs in the 8% to 10% range, while several hundred projects are currently under development. Artificial intelligence could further accelerate this transformation by supporting feasibility studies, streamlining permitting processes and automating administrative tasks.

Expanding Industrial Capacity

Scaling up the sector will require a significant increase in drilling resources. France currently operates an estimated five to six deep-drilling rigs, including three owned by Arverne, and around one hundred rigs dedicated to shallow geothermal applications, including six owned by Arverne. Meeting the targets set out in the PPE would require the shallow geothermal fleet to increase to approximately 400-500 rigs.

[1] *Ademe.fr, brmg.fr, edf.fr, info.ademe.fr*

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Beyond the number of rigs available, improving utilisation rates will be critical to reducing costs, strengthening the supply chain and supporting recruitment and training efforts. In this respect, the sector benefits from a significant advantage: a long-established pool of expertise inherited from the drilling and oilfield services industries.

Financing Is No Longer the Main Constraint

A clear consensus emerged from the discussions: capital is available. Public institutions already support feasibility studies, long-term project financing and, in some cases, equity investment. For banks and institutional investors, the key issue is no longer access to funding but rather the ability to finance portfolios of standardised assets rather than evaluating projects individually.

As in other infrastructure segments, market scale is a prerequisite for deploying significant volumes of capital.

Key Bottlenecks to Scaling Up

- **Limited awareness** among both public and private decision-makers.
- **Lengthy administrative procedures**, slowing project development.
- **Insufficient standardisation** of technical, contractual and financing solutions.
- **Limited drilling capacity** relative to public deployment targets.
- **An insufficient pipeline of mature projects** to absorb growing investor interest.
- **Specific challenges related to geothermal lithium**, particularly around extraction industrialisation and local acceptance.

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Towards an Increasingly Attractive Infrastructure Asset Class

Long perceived as a niche technology, geothermal energy is increasingly exhibiting the characteristics sought by infrastructure investors: very long-term contracts, strong revenue visibility, proven risk-mitigation mechanisms and significant value creation potential through scale effects. The main challenge is no longer financing, but the sector's ability to convert a growing pipeline of projects into investable assets.

Long-Term Revenues and Returns That Could Improve with Scale

The geothermal business model is primarily based on the sale of heat through **very long-term contracts**, typically spanning **30 to 50 years**, providing strong revenue visibility and substantial protection against energy market volatility. This characteristic makes geothermal assets comparable to regulated infrastructure investments, with recurring and predictable cash flows.

Arverne ultimately targets annual production of approximately 2TWh in shallow geothermal energy and 2TWh in deep geothermal energy. Based on the assumptions communicated by the company, shallow geothermal projects are supported by an average heat selling price of **€130/MWh**, while deep geothermal projects are based on assumptions ranging from **€55/MWh to €70/MWh**, depending on project characteristics and the district heating networks served.

These assumptions translate into particularly significant cumulative revenues over the life of the contracts. **A typical shallow geothermal project could generate approximately €40m of revenue over its lifetime, compared with around €140m for a deep geothermal project.** Associated EBITDA margins are estimated at **65%-70%** for shallow geothermal projects and **40%-45%** for deep geothermal projects.

Returns appear attractive relative to the risk profile of the assets. **Initial capex requirements remain relatively limited, at approximately €8m for a shallow geothermal project and €25m for a deep geothermal project.** In this context, the company targets **project-level IRRs of 8%-10%**, supported by a combination of public and private financing. Current support mechanisms can cover up to **30% of capex through grants** for shallow geothermal projects and up to **30% for deep geothermal projects**, with the remaining funding provided through debt financing that can represent **65%-80% of total funding requirements**, depending on the project.

This value creation thesis is based on a portfolio approach. The objective is no longer to develop standalone projects but to build sufficiently large asset portfolios capable of benefiting from economies of scale, reducing unit drilling costs and standardising equipment. Market scale therefore represents one of the most important levers for improving the sector's overall profitability.

Approximately **100 deep geothermal projects** and **more than 250 shallow geothermal projects** have already been identified.

As the Sector Matures, Financing Conditions Should Continue to Improve

Geothermal energy is gradually becoming an attractive asset class for lenders and investors. Advances in subsurface knowledge, resource modelling and operational experience have significantly reduced the perception of technical risk. At the same time, geothermal projects replace energy expenditures exposed to fossil-fuel price volatility with infrastructure assets capable of delivering more predictable long-term costs.

Risk Mitigation Mechanisms Significantly Reduce Downside Exposure

The sector currently benefits from a highly supportive environment thanks to the existence of **public guarantee schemes covering most geological risks**.

For **deep geothermal energy**, the **Geothermal Guarantee Fund** covers both the risk of discovering an insufficient resource during drilling and the risk of declining performance over time.

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Comparable arrangements exist for **shallow geothermal energy**, including **guarantees covering resource quality and long-term sustainability**.

Combined with the participation of public investors and long-term financing providers, these mechanisms significantly reduce exposure to both technical and financial risks. For many financing institutions, the issue of risk management now appears largely resolved.

Project Maturation Remains the Main Bottleneck

A common conclusion shared by all participants was that capital is available to support a significant scale-up of the sector.

The main bottleneck lies further upstream, in project development and maturation. Preliminary studies, administrative approvals and permitting timelines continue to slow the conversion of identified opportunities into financeable assets.

Once these hurdles are overcome, geothermal energy offers most of the characteristics sought by infrastructure investors: a mature technology, recurring revenues, long-term contracts, robust guarantee mechanisms and a direct contribution to both decarbonisation and energy sovereignty objectives.

The key question is therefore no longer access to funding, but the industry's ability to generate a sufficient pipeline of projects to meet growing investor demand and support the sector's industrialisation.

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The Dual Promise of Geothermal Energy

Geothermal lithium could materially enhance the economics of the sector. By extracting a critical raw material from the same infrastructure used for heat production, it creates a business model combining recurring revenues with exposure to the structural growth of the battery market.

The combination of geothermal energy and lithium gives the sector a strategic dimension that extends far beyond renewable heat production alone. Certain geothermal brines contain lithium, a critical material for batteries and the electrification of the economy, positioning geothermal energy at the intersection of energy security, industrial policy and strategic sovereignty.

Against the backdrop of rapidly increasing lithium demand, the brines of the Upper Rhine Graben represent a particularly promising resource. Estimates suggest the presence of between **1 and 16 million tonnes of lithium in place**, while several studies indicate that around twenty wells could supply **25% to 50% of French lithium demand by 2035**. Beyond lithium, these brines may also contain other potentially valuable minerals such as boron and strontium. Early pilot projects have already demonstrated the technical feasibility of this approach.

The attractiveness of the model lies in the simultaneous monetisation of two resources from a single asset. A geothermal doublet can produce both renewable heat and lithium before the fluid is reinjected into a closed-loop system. This **"dual-revenue stream"** approach significantly enhances project economics. While standalone geothermal projects typically generate **IRRs of 8% to 10%**, the addition of lithium production can increase post-tax IRRs to **15.2% (unlevered)** and up to **24.7% (levered)**. Heat provides long-term recurring revenues, while lithium adds an additional growth component linked to the critical minerals market.

The value creation potential is even more pronounced in geothermal lithium projects. **Lithium de France** is targeting annual production of approximately **27,000 tonnes of lithium carbonate equivalent (LCE)** while simultaneously delivering **2.2TWh of geothermal heat per year**. Based on the company's assumptions, the project relies on a lithium price of **€20,500/t LCE** (after applying annual depletion of 3.5% and assuming a four-year production plateau at 100% capacity), together with an average heat selling price of **€30/MWh**.

Under these assumptions, the project could generate more than **€10bn of cumulative revenue** over its lifetime, with **EBITDA margins of approximately 75%**. Initial investment is estimated at **€1.8bn-1.9bn**, financed through a combination of grants covering up to **10% of total capex** and debt financing representing up to **70% of total funding requirements**.

Beyond economics, the model offers significant local benefits through mining royalties, direct and indirect job creation, and the development of a domestic industrial value chain. By combining decarbonisation, energy sovereignty, critical raw material security and regional economic development, the heat-lithium model could become one of the most transformative opportunities for the French geothermal industry over the coming decade.

Visibility on this opportunity has recently improved following the independent resource certification conducted by **Sproule ERCE**. The assessment increased **Lithium de France's** indicated and inferred resources to **26Mt LCE**, while total exploration potential now stands at **43Mt LCE**. These estimates are based on 3D seismic data and drilling results acquired across the permit area, significantly strengthening confidence in the project's geological foundations.

The identification of resources across **two distinct reservoirs** is particularly important from an investment perspective. The current development plan is based on exploiting only one of these reservoirs, suggesting substantial expansion potential beyond the initially contemplated project. This additional resource base therefore represents a potentially meaningful growth option that may not yet be fully reflected in current valuation scenarios.

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Geothermal Energy at the Scale-Up Stage

The ability of public and private stakeholders to create an investment-friendly framework will determine how quickly geothermal energy evolves from a niche market into a core component of France's energy system.

The discussions highlighted a French geothermal sector reaching a clear inflection point. The main constraints are no longer resource availability or technological feasibility, but rather the execution capacity of the ecosystem itself: streamlining permitting procedures, expanding drilling capabilities, standardising projects and mobilising capital on a large scale.

The sector nevertheless benefits from an increasingly supportive backdrop. Recurrent heatwaves have strengthened the focus on renewable cooling solutions within public policy, while support mechanisms continue to expand. At the European level, ongoing work on the electrification of heating and cooling, together with future geothermal-specific initiatives, could provide additional catalysts for growth.

Beyond its intrinsic advantages, namely a domestic resource base, dispatchable production, long-term contracted revenues and limited exposure to fossil fuel price volatility, the sector now also benefits from the potential of geothermal lithium, which enhances both project economics and strategic relevance.

The sector's main risk is therefore increasingly an industrialisation risk rather than a technology risk. Deployment will depend less on future innovation and more on the ability of public and private stakeholders to create the conditions required for large-scale development.

The First Signs of Scale Are Emerging

For industry participants, scale is not measured by the number of projects announced, but by the ability to keep equipment continuously utilised. Recurring activity improves productivity, reduces costs and supports investment throughout the value chain.

The real inflection point will occur when the market can sustainably provide enough projects to keep existing capacity fully engaged. At that stage, geothermal energy will cease to be a collection of individual projects and become a fully industrial activity benefiting from meaningful economies of scale.

Current project portfolios suggest that this transition is beginning to take shape. In deep geothermal energy, **Arverne** has identified a pipeline of more than **100 projects**, representing over **5TWh per year** of potential production and supported by contracts with an average duration of approximately **30 years**. In the near term, **17 projects are already under agreement or contract** (1.0TWh/year), **24 additional projects are under negotiation** (1.5TWh/year) and **62 projects remain at the prospect stage** (2.8TWh/year).

In shallow geothermal energy, the group estimates its addressable market at approximately **250 autonomous heating networks**, representing around **1.6TWh per year** of demand. While this remains modest compared with the **PPE3 target of 15-18TWh of annual production by 2035**, it illustrates the substantial market still to be developed, particularly in areas located more than two kilometres away from existing district heating networks.

The most relevant indicator of sector maturity is therefore not the number of projects under development, but the industry's ability to sustain sufficient activity levels to industrialise drilling operations, optimise equipment utilisation and unlock economies of scale.

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How Can Geothermal Energy Transition from a Niche Sector to a Mass Market?

The transition towards a mass market depends on five key conditions:

- **Sufficient regulatory visibility to support investment decisions;**
- **Systematic integration of geothermal solutions into construction and urban development projects.** For example, Switzerland does not mandate geothermal energy in new buildings, but it imposes demanding energy-efficiency standards that strongly favour renewable technologies, including geothermal heat pumps;
- **Expansion of industrial capacity**, particularly in drilling and subsurface engineering activities;
- **Greater project standardisation and market scale.** As was the case for solar and wind power before it, geothermal energy could benefit significantly from economies of scale as technologies, drilling methods and development processes become increasingly standardised;
- **Improved monetisation of multi-purpose assets**, notably through the **heat-lithium combination**.

At this stage, the key question is no longer whether geothermal energy has a sizeable addressable market, but how quickly that market can be converted into productive assets.

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FINANCIAL DATA

Income Statement	12/23	12/24	12/25	12/26e	12/27e	12/28e
Sales	10.1	14.1	18.0	14.5	25.0	46.2
Changes (%)	-5.8	40.2	27.2	-19.4	72.4	84.8
Gross profit	13.6	19.7	26.7	27.5	36.5	55.3
% of Sales	134.8	139.1	148.4	189.6	146.0	119.6
EBITDA	**-11.9**	**-17.7**	**-20.0**	**-20.9**	**-20.0**	**-13.0**
% of Sales	-118.2	-125.3	-110.9	-143.8	-80.0	-28.2
Current operating profit	**-15.1**	**-20.8**	**-25.7**	**-25.9**	**-25.6**	**-21.0**
% of Sales	-149.8	-146.8	-142.6	-178.3	-102.4	-45.6
Non-recurring items	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	-15.1	-20.8	-25.7	-25.9	-25.6	-21.0
Net financial result	4.1	4.2	1.7	-1.7	-5.1	-7.0
Income Tax	1.0	0.2	1.5	1.8	2.5	3.5
Tax rate (%)	0.0	25.0	25.0	na	na	na
Net profit, group share	**-53.3**	**-10.0**	**-20.7**	**-24.9**	**-27.4**	**-21.4**

Financial Statement	12/23	12/24	12/25	12/26e	12/27e	12/28e
Goodwill	0.0	0.0	0.0	0.0	0.0	0.0
Tangible and intangible assets	58.6	105.3	136.3	153.8	188.2	201.2
Right of Use	0.0	0.0	0.0	0.0	0.0	0.0
Financial assets	0.0	0.0	0.9	0.9	0.9	0.9
Working capital	0.2	-7.7	-7.7	-9.4	-23.5	-27.9
Other Assets	3.4	3.1	2.6	2.6	2.6	2.6
Assets	62.3	100.8	132.1	148.0	168.3	176.9
Shareholders equity group	164.1	155.9	140.6	115.7	88.3	66.9
Minorities	14.3	14.0	18.1	15.3	15.3	16.6
LT & ST provisions and others	2.6	3.0	2.7	2.7	2.7	2.7
Net debt	-124.2	-77.4	-32.6	11.1	58.7	87.4
Other liabilities	5.5	5.3	3.3	3.3	3.3	3.3
Liabilities	62.3	100.8	132.1	148.0	168.3	176.9
Net debt excl. IFRS 16	-124.8	-106.3	-61.9	-18.3	29.4	58.0
Gearing net	-0.7	-0.5	-0.2	0.1	0.6	1.0
Leverage	10.4	4.4	1.6	-0.5	-2.9	-6.7

Cash flow statement	12/23	12/24	12/25	12/26e	12/27e	12/28e
CF after elimination of net borrowing costs and taxes	-10.3	-10.4	-15.7	-19.6	-19.2	-9.9
ΔWCR	2.6	-7.9	-0.1	-1.6	-14.1	-4.4
Operating cash flow	-7.7	-18.3	-15.8	-21.2	-33.4	-14.3
Net capex	-18.2	-17.1	-40.6	-70.0	-75.0	-80.0
FCF	-25.9	-35.3	-56.3	-91.2	-108.4	-94.3
Acquisitions/Disposals of subsidiaries	0.0	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	7.4	-0.6	-1.4	70.0	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0
Repayment of leasing debt	-0.2	0.0	0.0	0.0	0.0	0.0
Equity Transaction	98.2	0.7	9.9	0.0	0.0	0.0
Others	-2.3	0.0	0.0	0.0	0.0	0.0
Change in net cash over the year	80.0	-35.2	-47.8	-21.2	-108.4	-94.3

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Methodology

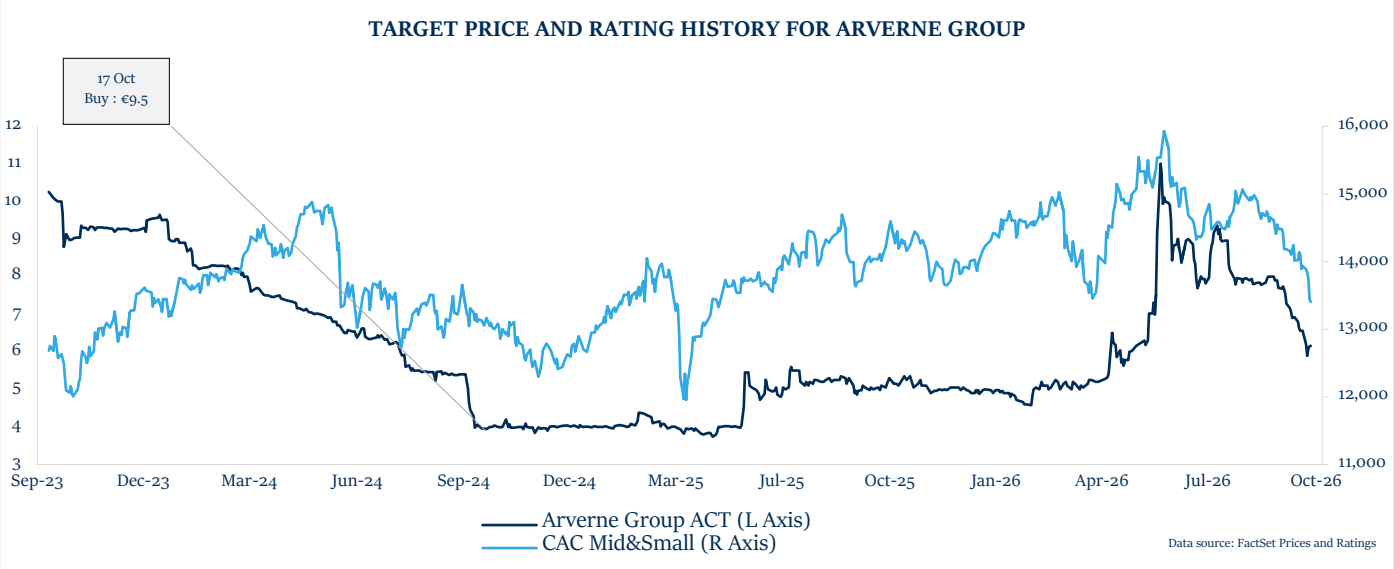
This Report may mention evaluation methods defined as follows:
1. DCF method: discounting of future cash flows generated by the company's operations. Cash flows are determined by the analyst's financial forecasts and models. The discount rate used corresponds to the weighted average cost of capital, 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.

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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

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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
24 Sep 26 - 07:17:45	Veneta Nikolova	€ 9.50	€ 9.50	€ 6.56	Buy	Buy
14 Sep 26 - 08:25:20	Veneta Nikolova	€ 9.50	€ 9.50	€ 7.28	Buy	Buy
04 Sep 26 - 07:02:03	Veneta Nikolova	€ 9.50	€ 9.50	€ 7.90	Buy	Buy
27 Jul 26 - 05:08:07	Veneta Nikolova	€ 9.50	€ 9.50	€ 8.18	Buy	Buy
02 Jul 26 - 07:10:02	Veneta Nikolova	€ 9.50	€ 9.50	€ 7.96	Buy	Buy
16 Jun 26 - 07:41:37	Veneta Nikolova	€ 9.50	€ 9.50	€ 8.80	Buy	Buy
18 May 26 - 22:51:02	Veneta Nikolova	€ 9.50	€ 9.50	€ 7.02	Buy	Buy
10 May 26 - 03:58:24	Veneta Nikolova	€ 9.50	€ 9.50	€ 6.24	Buy	Buy
08 Apr 26 - 08:15:26	Veneta Nikolova	€ 9.50	€ 9.50	€ 5.28	Buy	Buy
26 Mar 26 - 06:48:01	Veneta Nikolova	€ 9.50	€ 9.50	€ 5.20	Buy	Buy
20 Feb 26 - 07:12:59	Veneta Nikolova	€ 9.50	€ 9.50	€ 5.05	Buy	Buy
25 Nov 25 - 06:44:07	Veneta Nikolova	€ 9.50	€ 9.50	€ 5.05	Buy	Buy
12 Oct 25 - 19:33:19	Veneta Nikolova	€ 9.50	€ 9.50	€ 5.10	Buy	Buy

Distribution of Investment Ratings

Rating	Recommendation Universe*	Portion of these provided with investment banking services**
Buy	69%	77%
Hold	23%	59%
Sell	4%	33%
Under review	4%	86%

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