



31/12/2024

NICHE
ASSET MANAGEMENT

Pharus **Electric Mobility Value** Niche

Portfolio Update

30th September 2024 – 31st December 2024



Launch date: 10.06.2019

Total Net Asset as of 31.12.24: € 17,488,385.58

Currency: EUR

Net Asset Value
per share

as of 31.12.24:

Class A – ISIN: LU1867072149 € 139.90

Class B – ISIN: LU1867072222 € 154.58

Class Q – ISIN: LU1867072495 € 154.34

Class A GBP – ISIN: LU2526377374 £ 86.95

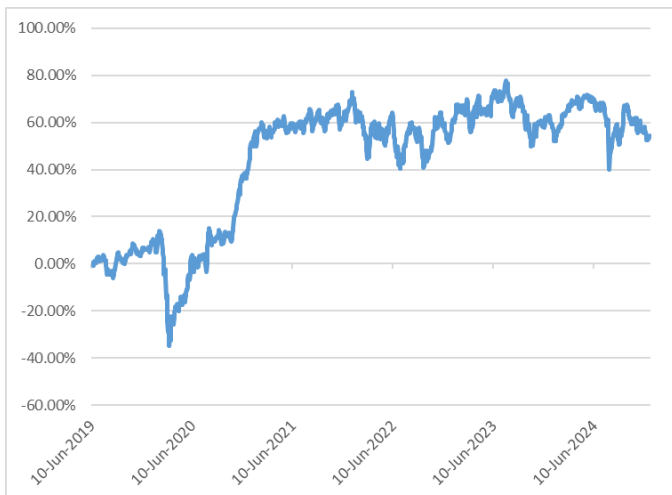
	Q4	Year to Date	1 Year	3 Years	Since inception
Performance (Class B)	-6.31%	+1.26%	-5.12%	-5.12%	+54.58%
Volatility					18.45%

Net Asset Value per share

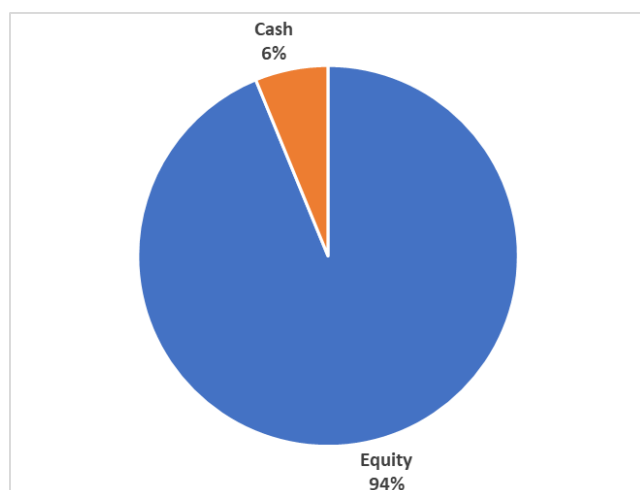
Performance Q4 2024: -6.31%



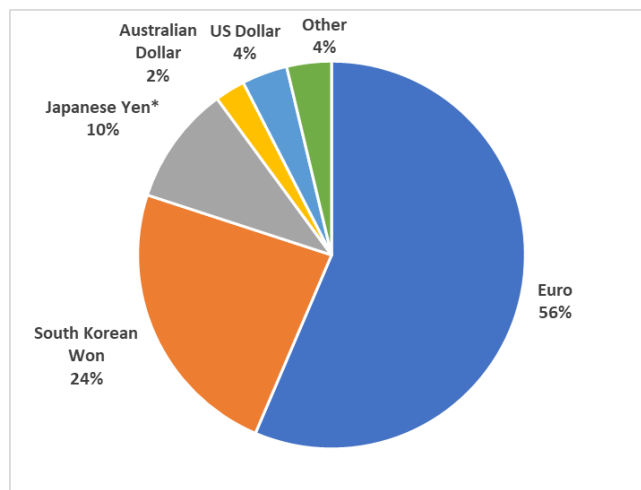
Performance since inception: +54.58%



Portfolio breakdown by asset class



Portfolio breakdown by currency



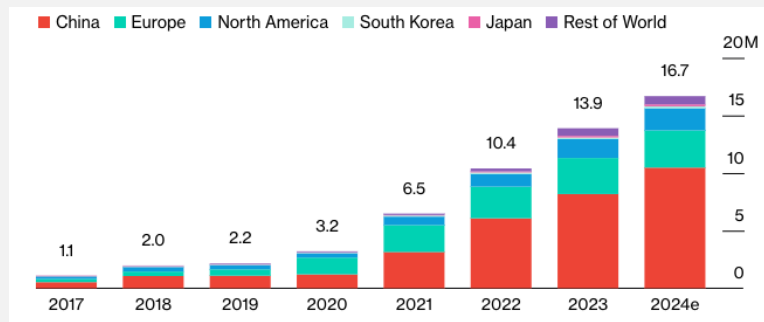
Quarterly comment

The fund lost 6.3 percent during the fourth quarter due to widespread pessimism about mass adoption of this technology in developed countries.

This trend resulted in an annual performance of -5.12%, which, although negative, should be highlighted as being better than that recorded by the main ETFs on electric mobility, which closed with a decline of between -11% and -14%.

In November, global sales of electric cars rose 32% for 28% market share, still strongly supported by the Chinese market (+51% year-on-year; 52% market share). Electric car sales in Europe fell 2% for 25% market share, while in the United States they rose 11.5% for 10.4% market share. It is estimated that electric car sales may be around 17 mln at the end of the year 2024 (about +20% compared to 2023).

Evolution of electric car sales by geographic area (2017-2024E)



Source: BloombergNEF, MarkLines, Jato Dynamics - includes battery-electric and plug-in hybrid

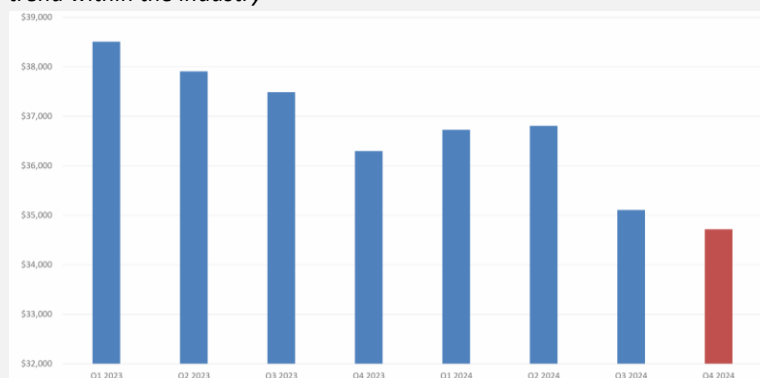
The negative sentiment that characterized the fourth quarter affected both Europe and the United States.

Calls have emerged in Europe for a postponement of penalties that will hit carmakers in 2025 that fail to reduce CO2 emissions, that is, to shift the mix of electric car sales beyond 20 percent of total cars sold. Europe's incumbent automakers, however, are well aware that slipping the timetable toward the inevitable migration to the electric car would only penalize their level of competitiveness against Chinese competitors and Tesla, jeopardizing the significant investments they have already made. However, sexy new models are not enough; states must stimulate the development of an efficient infrastructure.

In the United States, following Trump's election, fears have been added with respect to a reshaping/elimination of incentives that are part of the so-called *Inflation Reduction Act* (IRA). It should be pointed out with respect to this point, however, that a potential abandonment of the IRA would not be immediate and would again penalize efforts to catch up with China in terms of the technology gap. A complete halt to the incentive plan enacted by the previous government would then damage a pipeline of investment (and jobs) that affects mainly Republican states (about 90 percent of new gigafactories are planned in Republican states). Thus, the most likely scenario involves a reduction in end-user incentives alone, which should not dramatically halt migration

In both of these important geographies, the introduction of models for the mass market, the general progressive lowering of electric car costs (lower cost of commodities used in batteries combined with improved production processes) against improved range levels (significant increase in lithium cell storage capacity), will support greater market penetration.

Tesla: average cost per vehicle reached an all-time low in 4Q 2024 (approx. -10% compared to 1Q 2023): a general trend within the industry



Source: Tesla

According to S&P Global Mobility's latest estimates, in 2025 electric car sales are expected to increase by 33 percent in Europe (after 2024 growth of less than 5 percent) and 19 percent in the U.S. (after 2024 growth of close to 10 percent). This is hardly a dramatic scenario if one frames it in a difficult context for the global auto market, which is expected to show a slight decline in sales (-0.5% to 89 million cars sold).

In terms of performance at the individual niche level, pessimism about electric mobility affected Korean battery manufacturers, which are well represented within the portfolio in view of their top-notch positioning in terms of technological know-how, capacity expansion plans that place them as the main alternative to the opposed Chinese manufacturers, positive performance in ESS (*Energy Storage Systems*), and, of course, their low valuation levels. Not surprisingly, then, the *Lithium Cells Niche* (-10.1%) was the one that contributed most to the negative performance, along with the *Cathodes Niche* (-19.4%). By contrast, the *Commodities* (-1.98%) and *Satellite Areas* (-1.6%) niches limited their losses.

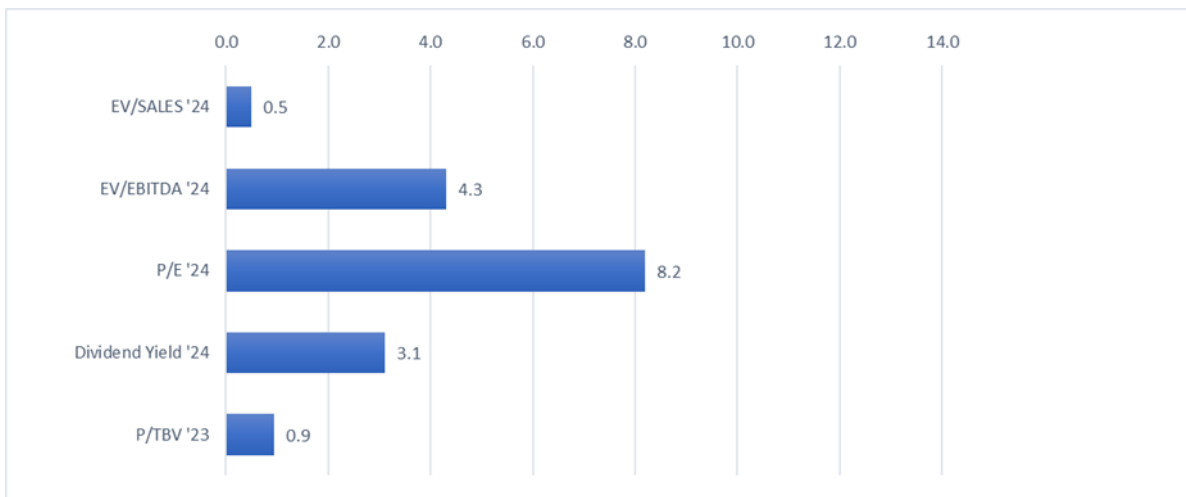
From a trading perspective, the weak phase was used to increase positions mainly on Korean stocks, while taking partial profits on Panasonic, whose positive performance after Trump's election was driven by the rise of Tesla, for which it is the main battery supplier.

The deep value approach that characterizes the fund's portfolio (average PE less than 9 times and capitalization to tangible equity less than 1 times) offers an attractive opportunity to gain exposure to the inevitable mass adoption of electric cars with limited risk.

Performance by niche – Q4 2024

NICHE	Performance
Lithium Cells	-10.14%
Cathodes	-19.37%
Anodes	-1.30%
Electrolytes & Elecfoils	+3.18%
Separators	-8.19%
Commodities	-1.98%
Powertrains & Ultracapacitors	-3.55%
Satellite Areas	-1.59%

Portfolio valuation



Source: Niche AM, Refinitiv, MSCI

Top holdings

ISIN	SECURITY	%	NICHE	SUB-NICHE
JP3866800000	Panasonic Holdings	8.20%	Lithium Cells (LC)	NCA
JP3402600005	Sumitomo Metal Mining	4.19%	Cathodes (CM)	NCA
JP3544000007	Teijin	4.18%	Separators (SM)	WET
DE0007664039	Volkswagen	3.41%	Satellite Areas (SA)	CARS
DE0005439004	Continental	3.30%	Power Trains & Ultracapacitors (PTU)	POWER TRAINS
KR7051911006	LG Chem Preferred Stock	3.16%	Lithium Cells (LC)	NMC
KR7096771001	SK Innovation Pref Shs	3.15%	Lithium Cells (LC)	NMC
KR7051910008	LG Chem Ord Shs	3.09%	Lithium Cells (LC)	NMC
KR7012330007	Hyundai Mobis	2.93%	Power Trains & Ultracapacitors (PTU)	POWER TRAINS
FR0013176526	Valeo	2.82%	Power Trains & Ultracapacitors (PTU)	POWER TRAINS

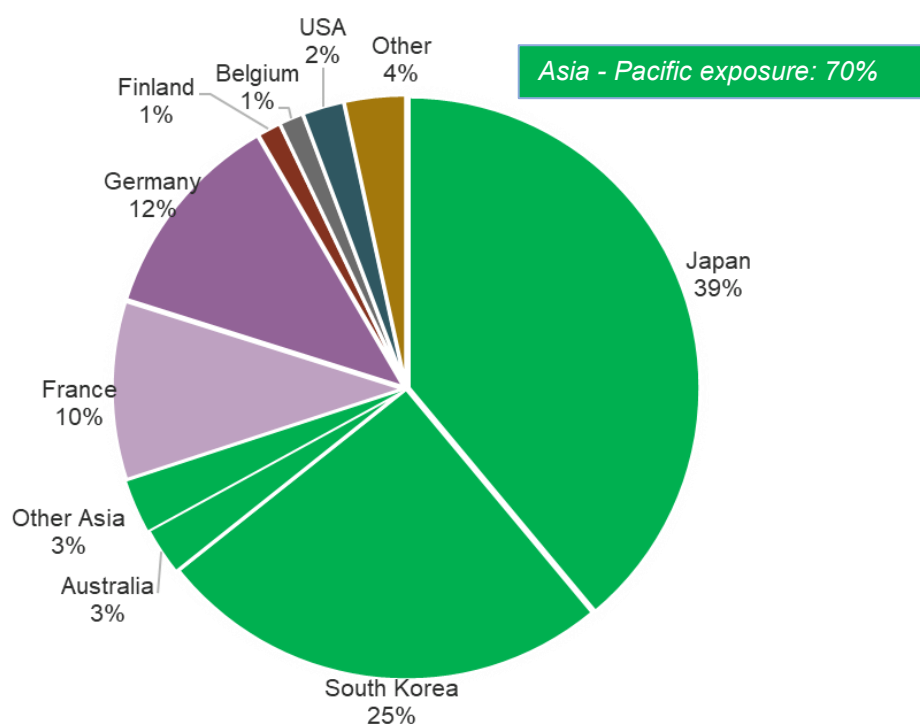
Main increases in the quarter

Holdings	Weight at 30/09/24	Weight at 31/12/24
Syrah Resources	1.1%	1.5%
Sebang	0.0%	0.3%
Eramet	0.8%	1.0%

Main decreases in the quarter

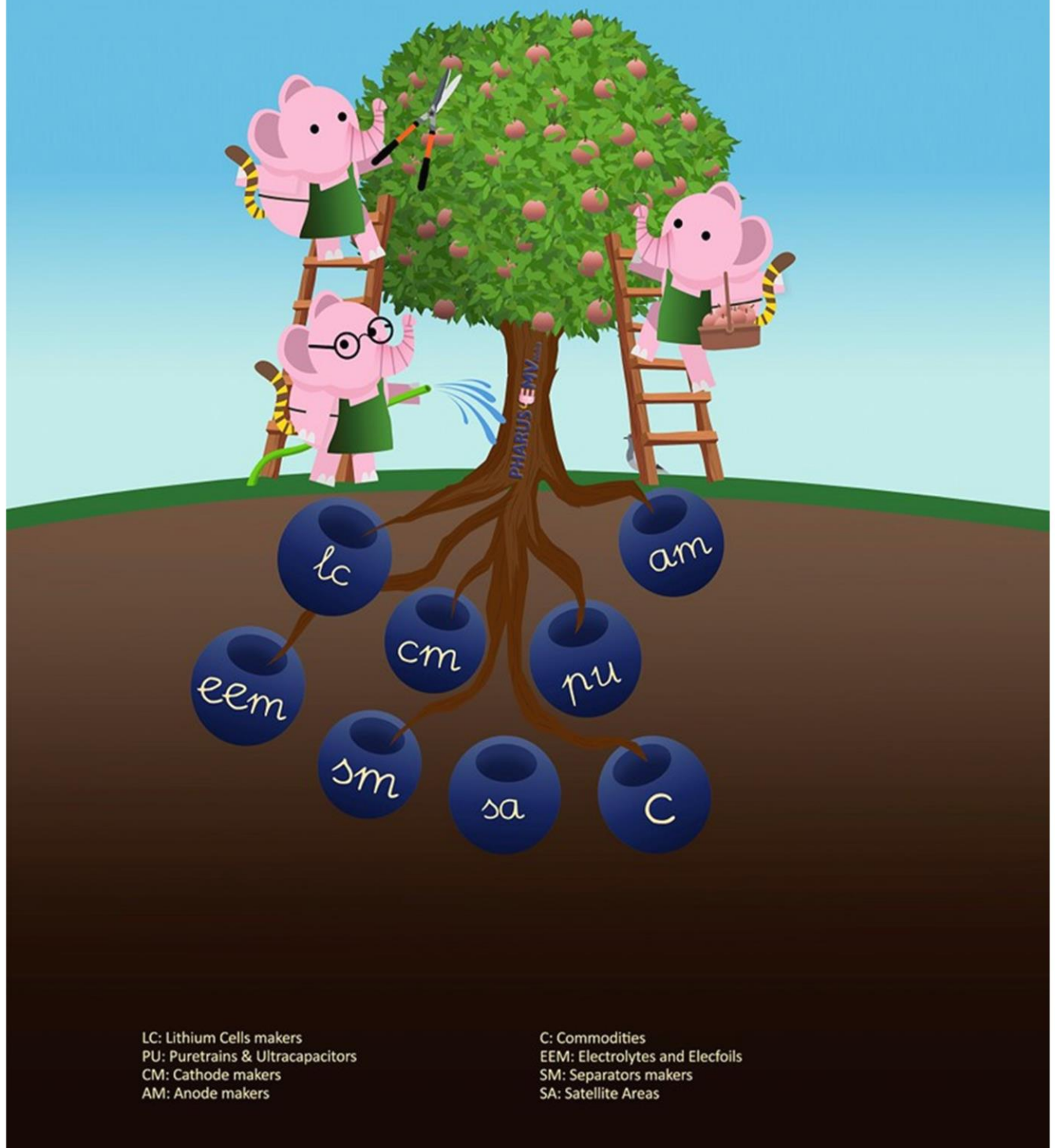
Holdings	Weight at 30/09/24	Weight at 31/12/24	Total Return
Arcadium Lithium	0.9%	0.0%	+23.3%
Vulcan Energy Resources	0.6%	0.3%	+157.3%

Geographical Composition



Source: Niche AM

ELECTRIC MOBILITY VALUE Niche



Lithium cells



stocks: 7

Average Market Cap (mln €) 16.435

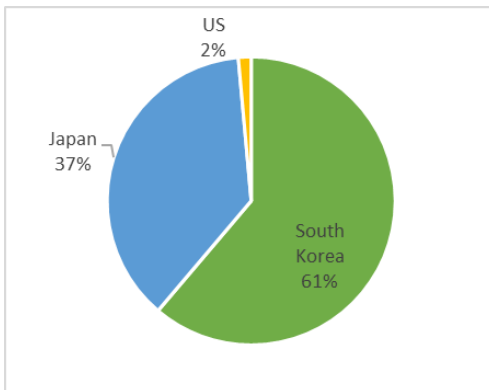
Median Market Cap (mln €): 11.285

Lithium cells – segment breakdown

		EM Fund	Lithium Niche
Lithium Cells	LC	21.9%	100.0%
Nickel Manganese & Cobalt	NMC	12.2%	55.7%
Nickel Cobalt & Aluminium	NCA	7.5%	34.0%
Lithium iron phosphate	LFP	2.0%	9.0%
Solid State	SS	0.3%	1.3%

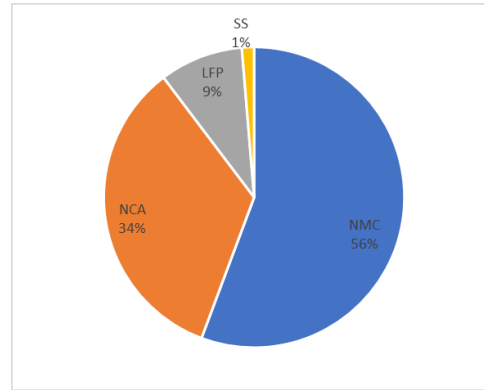
Source: Niche AM

Geographical breakdown

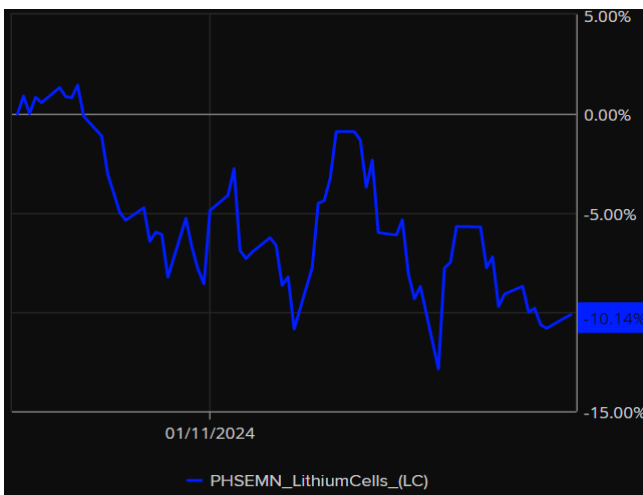


Source: Niche AM

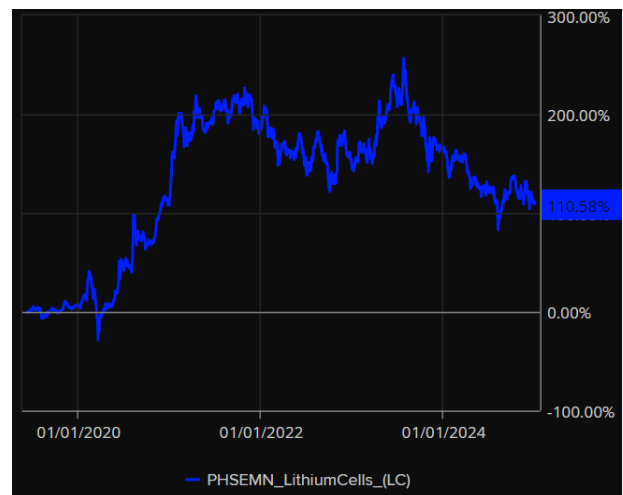
Segment breakdown



Performance Q4 2024 (30/09/24-31/12/24)



Performance since inception (10/06/19 – 31/12/24)

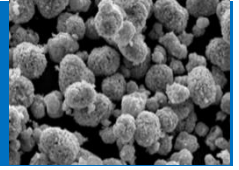


Source: Niche AM, Refinitiv

Niche Description

Electric mobility will grow dramatically in the coming years, with a speed still awaited by most, changing the world forever. Electric mobility will be pervasive, encompassing transport on land, water and air. At the heart of the electrification of mobility are lithium batteries, which consist of several lithium cells joined together through a battery management system. Each cell is a small battery with a cathode, an anode, a separator and filled with an electrolyte solution. There are different types of lithium cells, each with its own chemistry, although NCA and NMC are by far the most widely used in the electrification of transport.

Cathodes



stocks: 8

Average Market Cap (mln €): 2.488

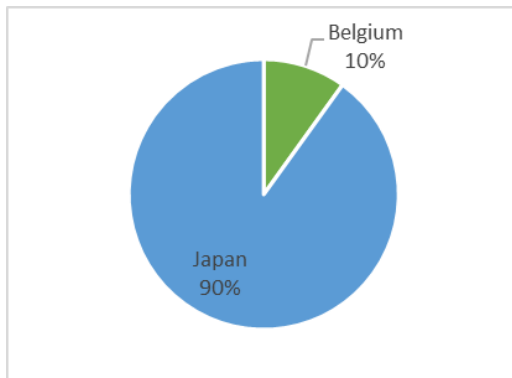
Median Market Cap (mln €): 209

Cathodes – segment breakdown

		EM Fund	Cathodes Niche
Cathodes		12.6%	100.0%
Nickel Manganese & Cobalt	NMC	2.7%	21.4%
Nickel Cobalt & Aluminium	NCA	6.9%	55.0%
Cathodes Material	CM	3.0%	23.7%

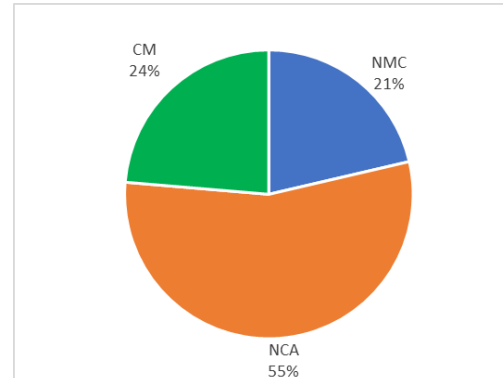
Source: Niche AM

Geographical breakdown

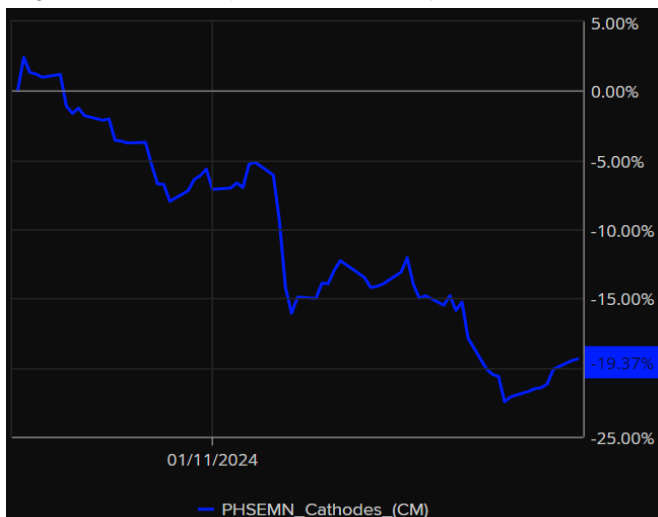


Source: Niche AM

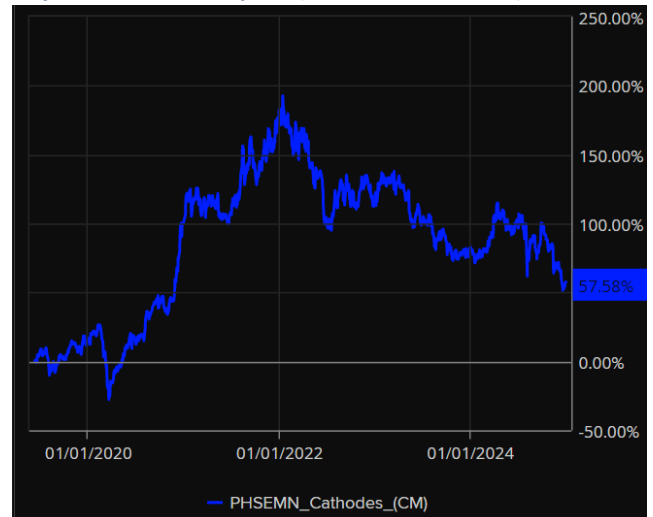
Segment breakdown



Performance Q4 2024 (30/09/24-31/12/24)



Performance since inception (10/06/19 – 31/12/24)

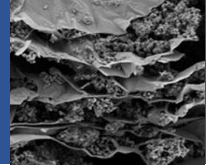


Source: Niche AM, Refinitiv

Niche Description

Cathodes are the most expensive component in lithium-ion batteries for electric vehicles (about 25 per cent of the total cost) and their chemistry is decisive for energy density and thus battery capacity. The composition of these cathodes will, at least for the next 5 to 7 years, be limited to two types of chemistry, NCA (nickel, cobalt and aluminium) and NMC (nickel, manganese and cobalt), as these provide the energy density required to make electric mobility competitive in terms of range with internal combustion vehicles.

Anodes



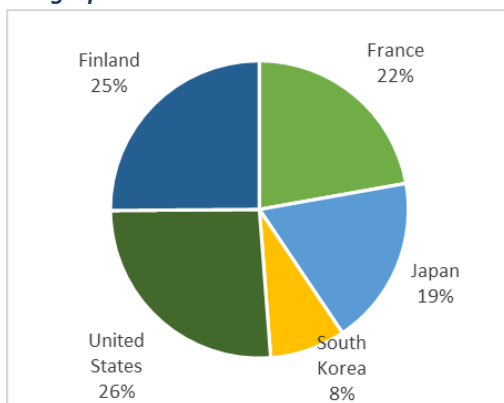
stocks: 5 Average Market Cap (mln €) 4.078 Median Market Cap (mln €): 2.395

Anodes – segment breakdown

	EM Fund	Anodes Niche
Anodes	4.9%	100.0%
Coating	1.1%	22.2%
Artificial Graphite	1.3%	26.6%
Needle Coke	2.5%	51.2%

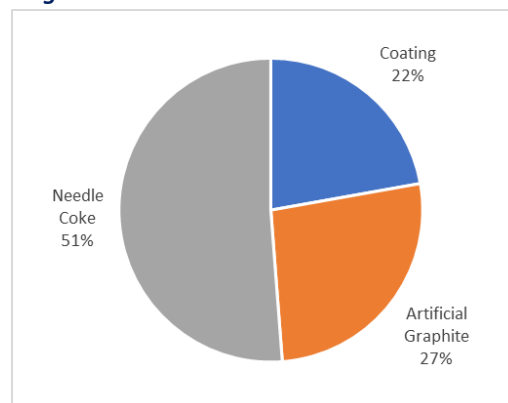
Source: Niche AM

Geographical breakdown

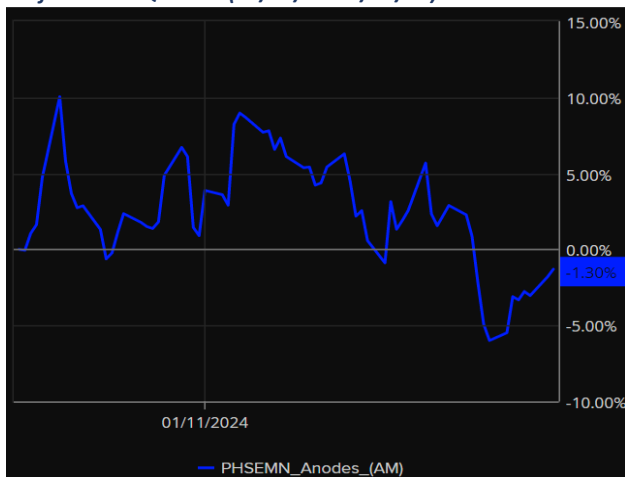


Source: Niche AM

Segment breakdown

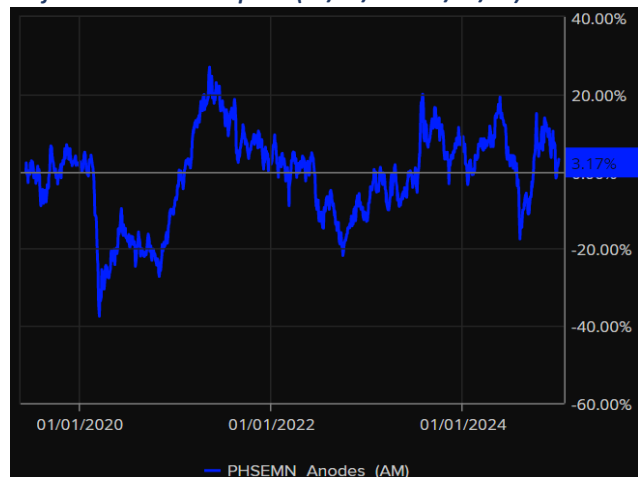


Performance Q4 2024 (30/09/24-31/12/24)



Source: Niche AM, Refinitiv

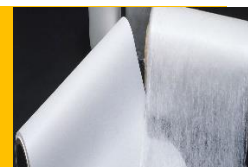
Performance since inception (10/06/19 – 31/12/24)



Niche Description

Anodes also contribute to determining the energy density of the battery, as they are responsible for storing and releasing lithium ions to and from the cathode. Anodes are arranged on copper or aluminium membranes that serve as a current collector for the anode. Selecting high quality materials for the anode enables lithium cells to offer good retention capacity and significant energy efficiency.

Separators



stocks: 5

Average Market Cap (mln €): 2.385

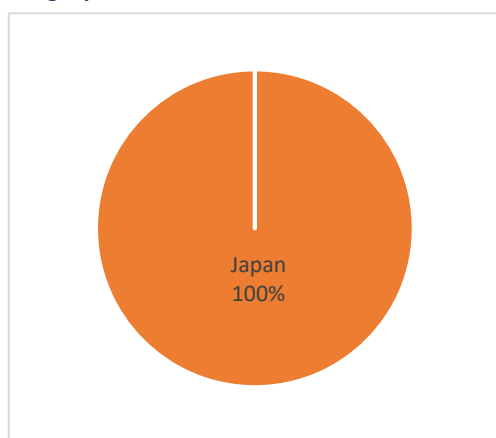
Median Market Cap (mln €): 349

Separators – segment breakdown

	EM Fund	Separators
Separator Maker	6.0%	100.0%
Wet Separators	4.9%	81.4%
Dry Separators	1.1%	18.6%

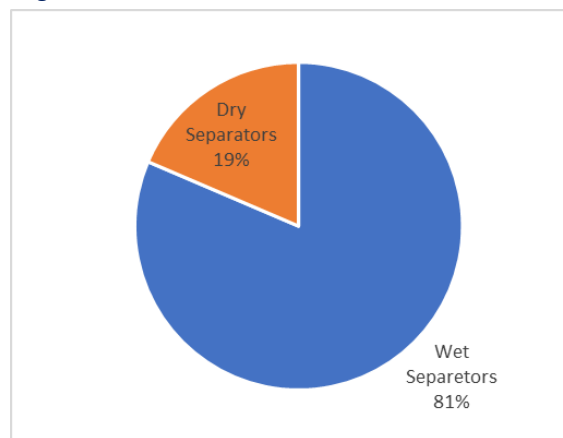
Source: Niche AM

Geographical breakdown

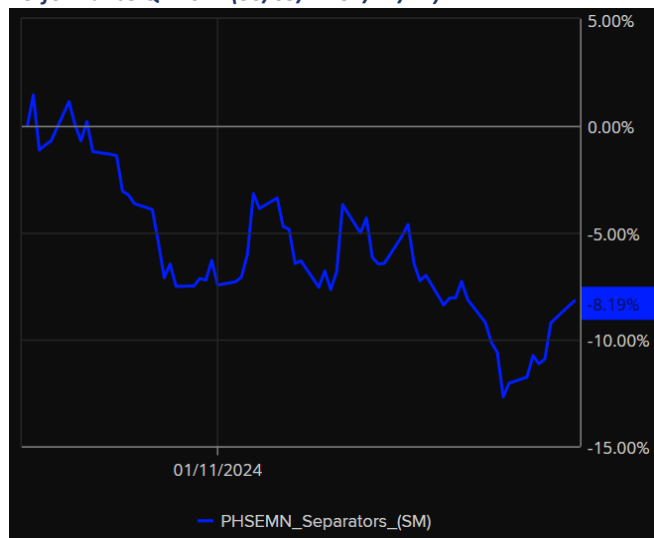


Source: Niche AM

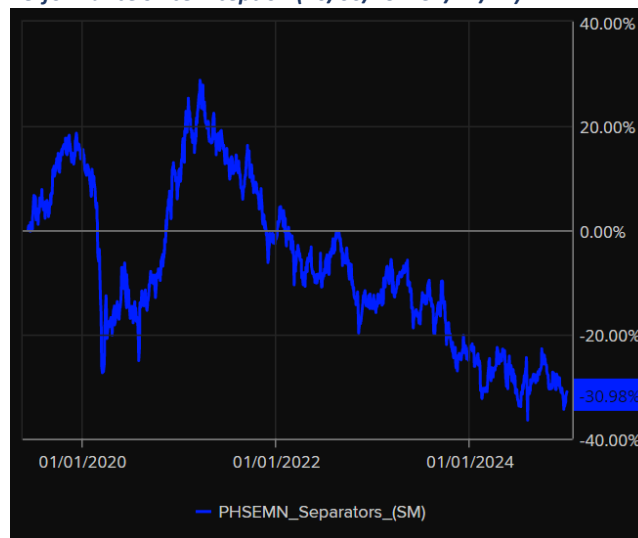
Segment breakdown



Performance Q4 2024 (30/09/24-31/12/24)



Performance since inception (10/06/19 – 31/12/24)



Source: Niche AM, Refinitiv

Niche Description

Separators ensure the safety of lithium cells as they act as a barrier between cathode and anode. Although separators occupy only 5% of the space of a cell, they represent the second most significant cost item after the cathode (around 10% of the total cost). The market for separators for electric vehicles was worth around USD600m in 2015, with a capacity of 0.5bn. This number could grow to over 20bn square metres by 2025, in line with the growth of electric mobility. However, there is a risk that after 2030 this component will no longer be needed if the solid-state battery is developed and adopted...

Electrolytes



stocks: 2

Average Market Cap (mln €): 351

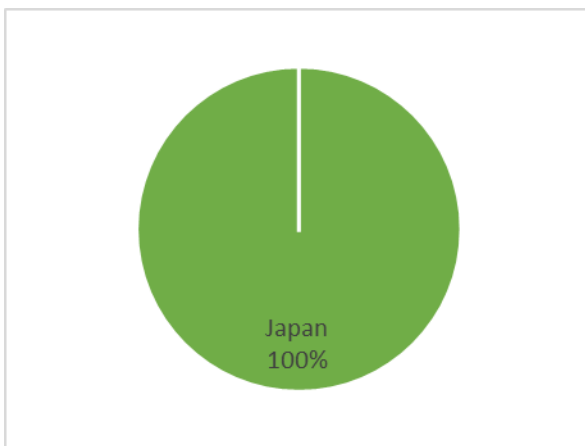
Median Market Cap (mln €): 349

Electrolytes & Elecfoils – segment breakdown

	EM Fund	Electrolytes Niche
Electrolytes & Elecfoils	1.2%	100.0%
Electrofoils	0.0%	0.0%
Electrolytes	1.2%	100.0%

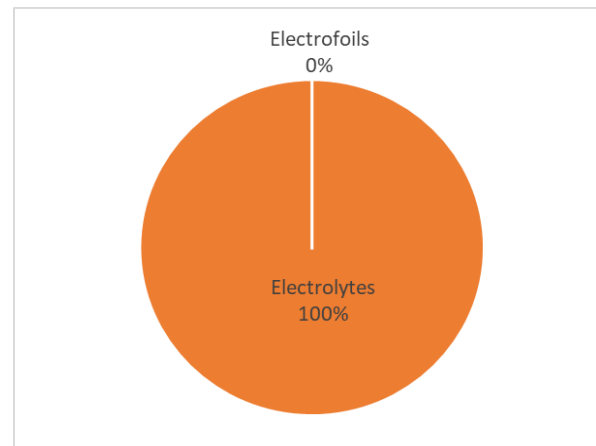
Source: Niche AM

Geographical breakdown

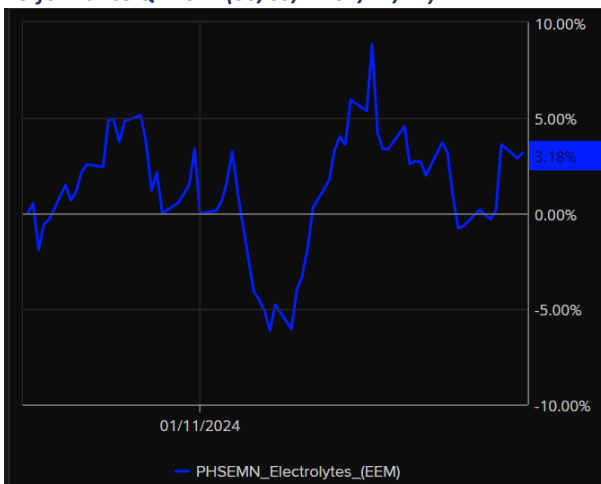


Source: Niche AM

Segment breakdown

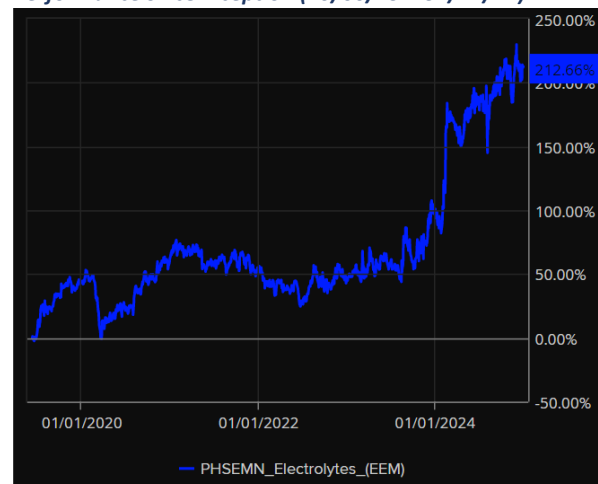


Performance Q4 2024 (30/09/24-31/12/24)



Source: Niche AM, Refinitiv

Performance since inception (10/06/19 – 31/12/24)



Niche Description

The electrolyte plays a key role as it enables and promotes the movement of lithium ions between cathode and anode. The electrolyte consists of solvents, salts and additives. The solvents allow the salts to dissolve. The salts allow the ions to pass through. Additives are products that are added to modify and refine the characteristics of the electrolyte. Materials that ensure a high ion-conducting capacity are essential to ensure good performance of the cell.

Commodities for electric mobility



stocks: 14

Average Market Cap (mln €): 6.550

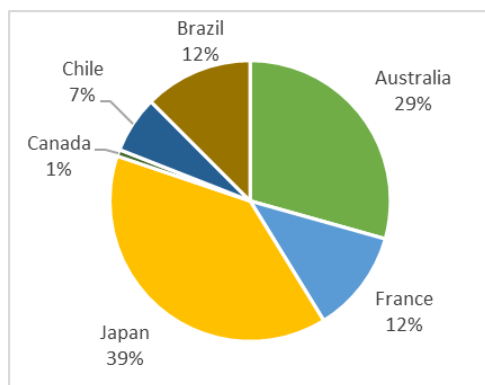
Median Market Cap (mln €): 1.565

Commodities – segment breakdown

	EM Fund	Commodities Niche
Commodities	9.2%	100.0%
Natural Graphite	1.5%	16.8%
Cobalt	1.1%	12.5%
Nickel Sulphate	3.4%	37.5%
Lithium	2.4%	25.7%
Copper	0.7%	7.5%
Vanadium	0.0%	0.1%

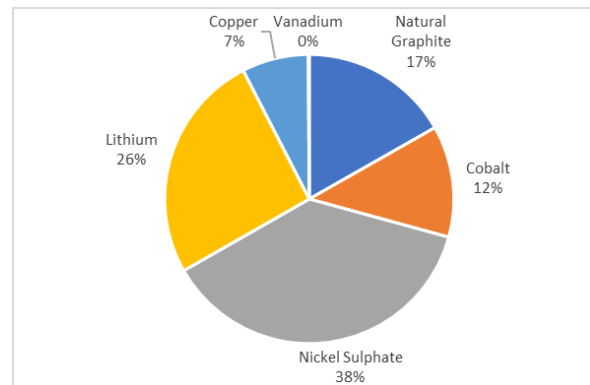
Source: Niche AM

Geographical breakdown



Source: Niche AM

Segment breakdown



Performance Q4 2024 (30/09/24-31/12/24)



Source: Niche AM, Refinitiv

Performance since inception (11/06/19 – 31/12/24)



Niche Description

Base Materials are vital for electric mobility. The need for cobalt, lithium and graphite will multiply many times over by 2025, while the need for nickel will almost double. Today, the world seems unprepared for this change, so a gradual increase in the price of these materials is likely once the adoption of e-mobility begins to accelerate dramatically.

Powertrains & Ultra Capacitors



stocks: 7

Average Market Cap (mln €): 8.282

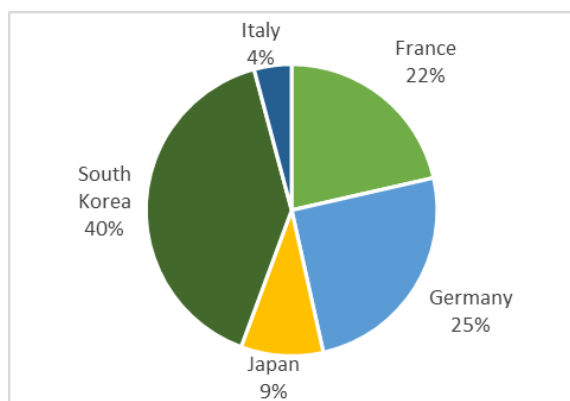
Median Market Cap (mln €): 2.278

PTs & UTs – segment breakdown

	EM Fund	Powertrains & UT
Powertrains & UTs	13.2%	100.0%
Power Trains	12.0%	90.9%
Ultra Capacitors	1.2%	9.1%

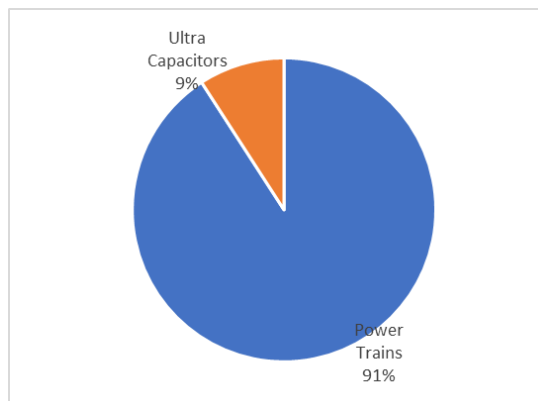
Source: Niche AM

Geographical breakdown

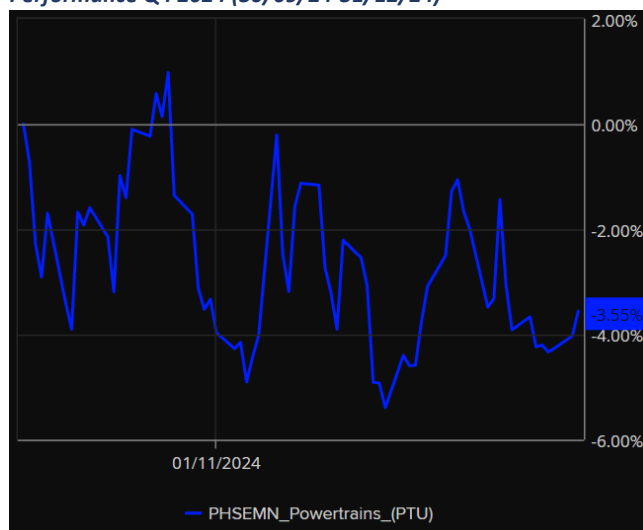


Source: Niche AM

Segment breakdown

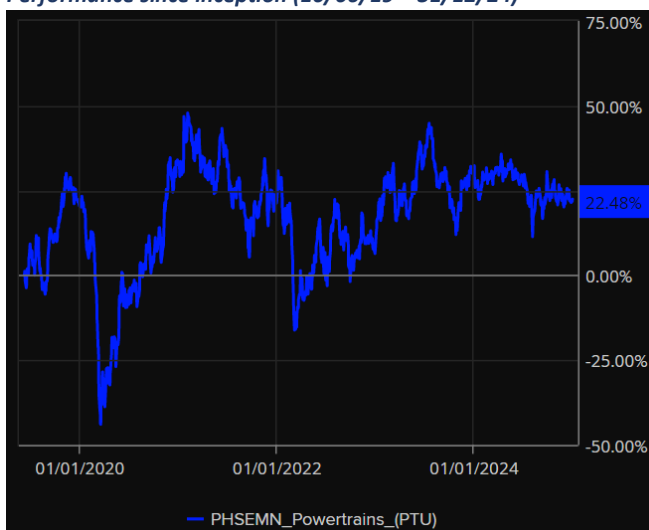


Performance Q4 2024 (30/09/24-31/12/24)



Source: Niche AM, Refinitiv

Performance since inception (10/06/19 – 31/12/24)



Niche Description

Electric vehicle powertrains are completely different from conventional ones and will be refined over time to produce solutions that can improve vehicle efficiency. Those companies that are best equipped to handle the change will be able to gain market share and significantly improve margins. At the same time, ultracapacitors can become an important complement to the electric powertrain, providing high energy intensity when needed and, in doing so, increasing vehicle performance and extending battery life.

Satellite Areas



stocks: 22

Average Market Cap (mln €): 10.638

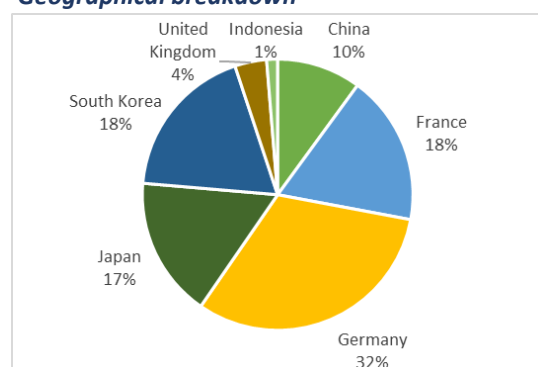
Median Market Cap (mln €): 498

Satellite Areas – segment breakdown

	EM Fund	Satellite Areas Niche
Satellite Areas	24.1%	100.0%
Sensors	1.6%	6.7%
Cars	10.1%	42.1%
Assembly Lines	3.4%	14.3%
Electrodes Cutting Equipment	0.9%	3.9%
Charging Stations	1.3%	5.3%
New Materials For Mobility	2.5%	10.3%
Lithium Batteries Assembly Machinery	0.2%	1.0%
Thermal Management Systems	0.9%	3.9%
Electric Bus	0.9%	3.8%
Electric Scooters	0.3%	1.3%
Recharging	1.8%	7.4%

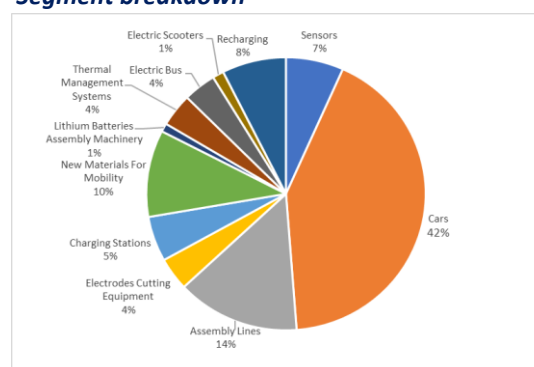
Source: Niche AM

Geographical breakdown

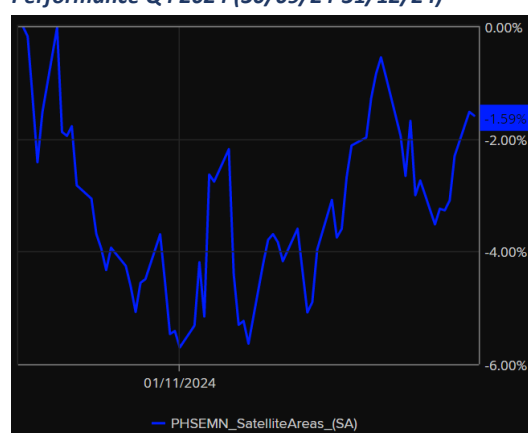


Source: Niche AM

Segment breakdown

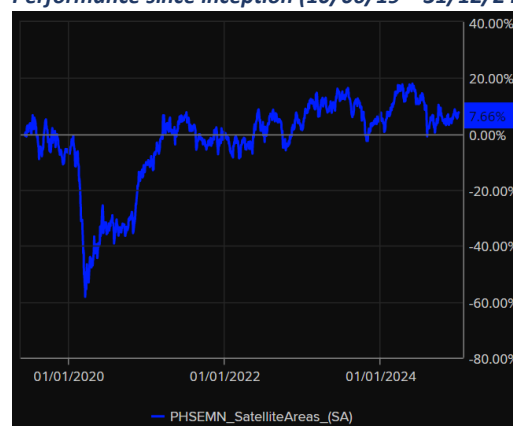


Performance Q4 2024 (30/09/24-31/12/24)



Source: Niche AM, Refinitiv

Performance since inception (10/06/19 – 31/12/24)



Niche Description

The transition from internal combustion vehicles to electric vehicles will be epochal, the value of the battery market will multiply by 30 in less than 10 years, reaching that of semiconductors. A billion cars and hundreds of millions of other vehicles will be affected. There is no doubt that this change will have the power to reshape many other adjacent sectors. This Niche seeks to identify the companies that will indirectly benefit from this trend.

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