



30/09/2024

NICHE
ASSET MANAGEMENT

Pharus **Electric Mobility Value** Niche

Portfolio Update

30th June 2024– 30th September 2024



Launch date: 10.06.2019

Total Net Asset as of 30.09.24: € 19,398,110.29

Currency: EUR

Net Asset Value
per share
as of 30.09.24:

Class A – ISIN: LU1867072149 € 149.81

Class B – ISIN: LU1867072222 € 164.99

Class Q – ISIN: LU1867072495 € 164.75

Class A GBP – ISIN: LU2526377374 £ 93.29

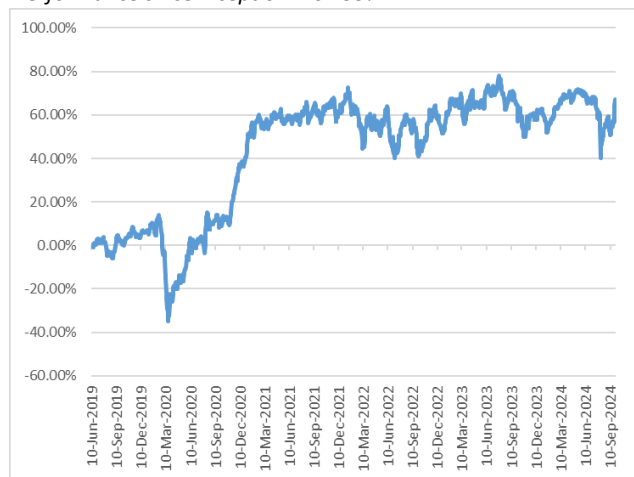
	Q3	Year to Date	1 Year	3 Years	Since inception
Performance (Class B)	-0.99%	+1.26%	0.18%	+2.89%	+64.99%
Volatility					18.68%

Net Asset Value per share

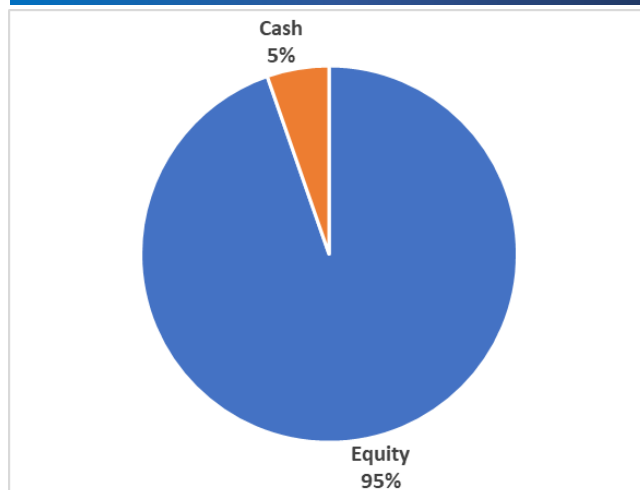
Performance Q3 2024: -0.99%



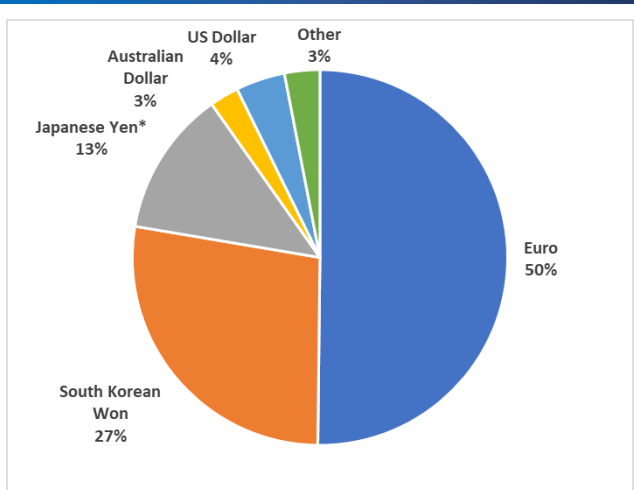
Performance since inception: +64.99%



Portfolio breakdown by asset class



Portfolio breakdown by currency



*net of JPY hedging

Quarterly comment

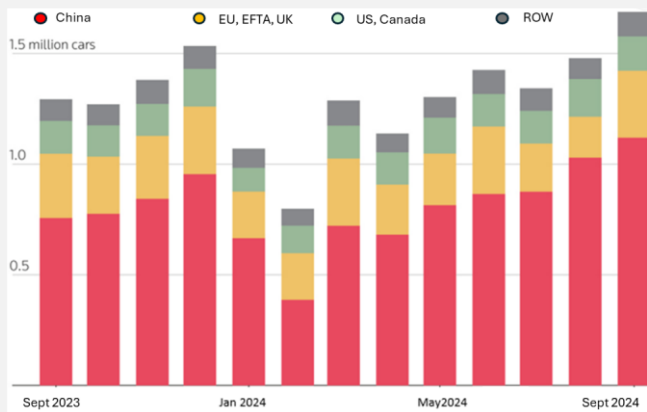
During the third quarter, the fund posted a negative performance of 0.99%.

The period was characterised by high volatility, due to the BoJ's interest rate hike which triggered the yen's strengthening and the closure of many carry trade positions whereby investors were exposed to risk assets by borrowing money in yen, benefiting from low rates and its weakening.

In terms of sub-niches, the most negative contribution to performance came from Commodities (-5.7%), Cathodes (-1.9%) and Satellite Areas (-1.6%), not sufficiently offset by signs of recovery in the Lithium Cell sub-niche (+3.2%), Anodes (+3%) and Separators (+10.8%).

Growth in demand for electric vehicles (EVs) in 2023 was undoubtedly slower than expected, with the exception of the Chinese market. In September, global sales of electric cars increased by 31% year-on-year for a 20% market share, driven by the Chinese market (sales +51%, market share 53%). Sales in Europe rose by 6%, while sales in the US fell by 14%, for a market share of 26% and 10.5% respectively.

September 2024 - Global monthly sales of plug-in electric cars: 1.69 million (+31% year-on-year)



Source: Reuters

We believe sentiment has reached a low point, with market expectations incorporating a very cautious scenario in terms of potential growth dynamics.

Indeed, the scenario looks set to change in the not too distant future. In the coming quarters, battery and battery component manufacturers are expected to benefit from the rebuilding of inventories, both due to the launch of new models and low inventory levels.

The launch of economical models for the mass market from 2025 onwards will support a turnaround in demand, all the more so given the room for manoeuvre on EV pricing made possible by the stabilisation of raw material prices at modest levels.

KIA EV3 (58kWh LFP battery, range 430km WLTP combined cycle, starting price € 36k)



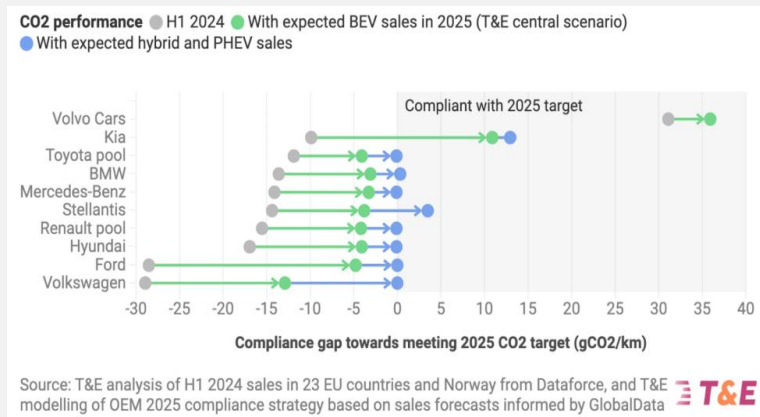
Fiat Grande Panda electric (44kWh LFP battery, range 320km WLTP combined cycle, starting price under 25k €)



The introduction of new battery technologies (Panasonic and LG's 4680 series) represents a major change in terms of performance (up to 5 times the capacity of current cells) and cost (30-50% lower assembly costs), supporting the trend towards greater autonomy and lower costs that will accompany the large-scale deployment of this technology ([click here](#) to read Panasonic's recent press release on the start of mass production of 4680 series batteries).

The increasingly restrictive regulatory framework in terms of emissions will only accompany this inevitable path. In Europe, carmakers are now preparing to meet the more stringent 2025 CO₂ emission targets: from the graph below, it is clear that a greater weight of electric cars in the sales mix, through the launch of new models and a greater use of price leverage, is the strategy most likely to meet the limits and avoid penalties ([click here](#) for more information).

Increased sales of electric cars needed by European carmakers to meet 2025 CO₂ emission targets



Source: T&E analysis

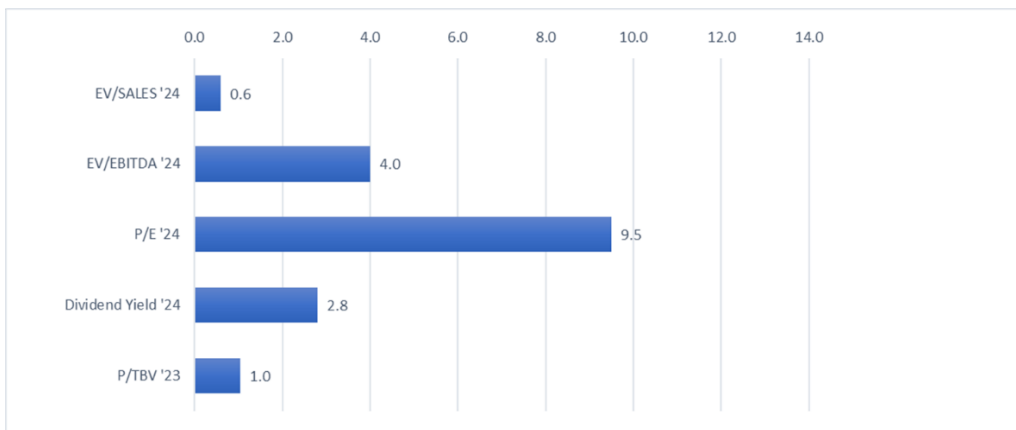
Finally, one should not forget the growing benefit battery manufacturers derive from the sustained demand for ESS (Energy Storage Systems).

The multiples characterising the niche (PE less than 10 times and Price on Tangible Net Assets around 1 times) make clear the attractiveness of the investment case related to the possibility of mass adoption of electric cars materialising in a few years.

Performance by niche – Q3 2024

NICHE	Performance
Lithium Cells	+3.15%
Cathodes	-1.93%
Anodes	+2.96%
Electrolytes & Elecfoils	+6.32%
Separators	+10.81%
Commodities	-5.67%
Powertrains & Ultracapacitors	-1.53%
Satellite Areas	-1.58%

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	4.57%	Cathodes (CM)	NCA
KR7051911006	LG Chem Preferred Stock	4.54%	Lithium Cells (LC)	NMC
KR7051910008	LG Chem Ord Shs	4.16%	Lithium Cells (LC)	NMC
JP3544000007	Teijin	4.07%	Separators (SM)	WET
DE0007664039	Volkswagen Non-Voting Pref Shs	3.29%	Satellite Areas (SA)	CARS
KR7096771001	SK Innovation Pref Shs	3.28%	Lithium Cells (LC)	NMC
JP3627400009	Toda Kogyo	3.04%	Cathodes (CM)	NCA
FR0013176526	Valeo	2.96%	Power Trains & Ultracapacitors (PTU)	POWER TRAINS
DE0005439004	Continental	2.67%	Power Trains & Ultracapacitors (PTU)	POWER TRAINS

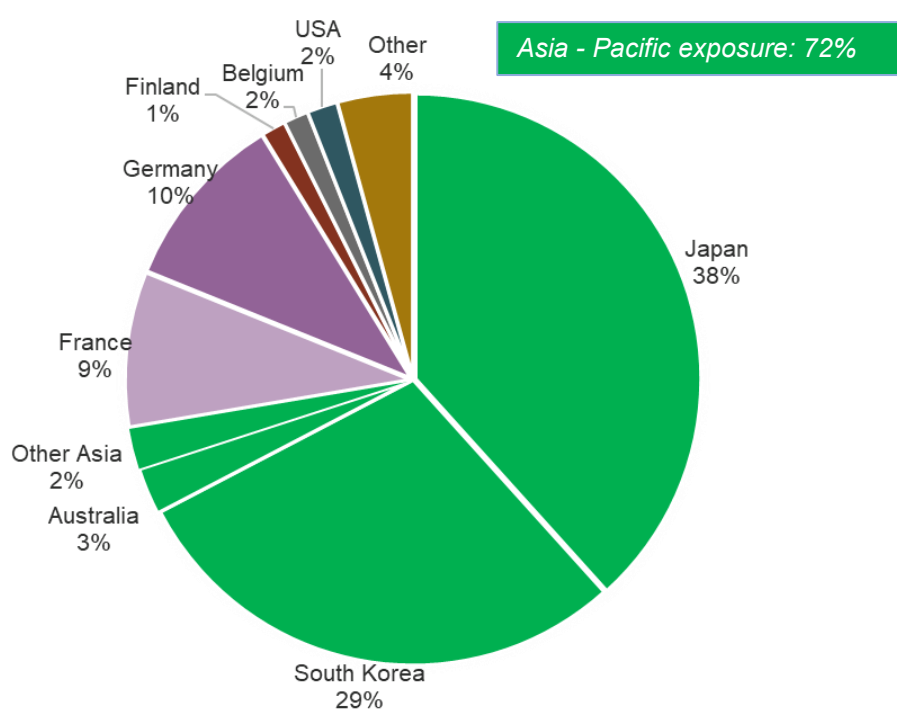
Main increases in the quarter

Holdings	Weight at 30/06/24	Weight at 30/09/24
LG Chem Ord Shs	0.0%	4.2%
Panasonic Holdings	6.3%	8.2%
LG Chem Preferred Stock	3.4%	4.5%
Volkswagen Non-Voting Pref Shs	2.2%	3.3%
Umicore	0.8%	1.3%

Main decreases in the quarter

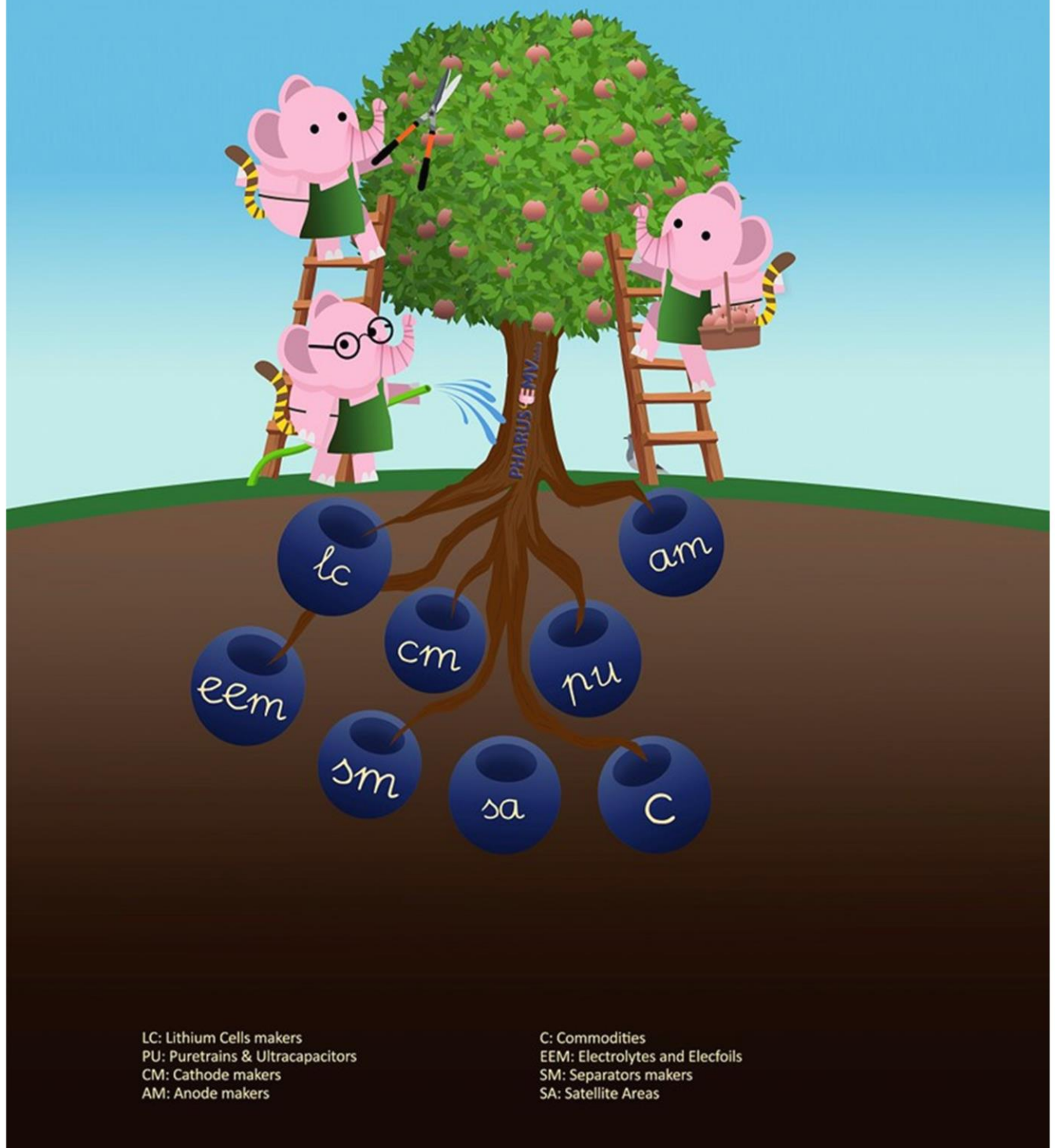
Holdings	Weight at 30/06/24	Weight at 30/09/24	Total Return
Renault	2.6%	1.3%	+81.2%
Idemitsu Kosan	1.0%	0.0%	+65.0%
Imerys	1.8%	1.0%	+32.7%
Sandfire Resources	0.5%	0.0%	+63.8%
Resonac Holdings	0.4%	0.0%	+20.7%

Geographical Composition



Source: Niche AM

ELECTRIC MOBILITY VALUE Niche



Lithium cells



stocks: 7

Average Market Cap (mln €) 16.097

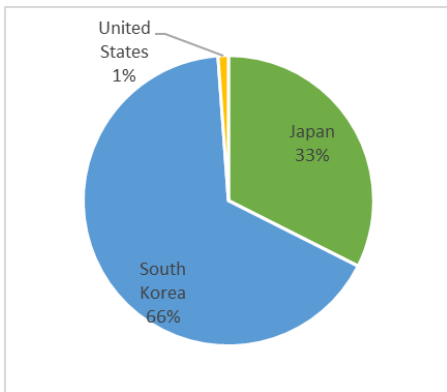
Median Market Cap (mln €): 17.997

Lithium cells – segment breakdown

		EM Fund	Lithium Niche
Lithium Cells	LC	25.3%	100.0%
Nickel Manganese & Cobalt	NMC	15.2%	60.2%
Nickel Cobalt & Aluminium	NCA	7.5%	29.8%
Lithium iron phosphate	LFP	2.3%	9.0%
Solid State	SS	0.3%	1.1%

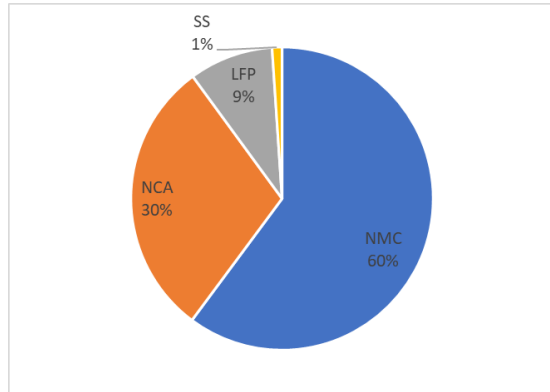
Source: Niche AM

Geographical breakdown

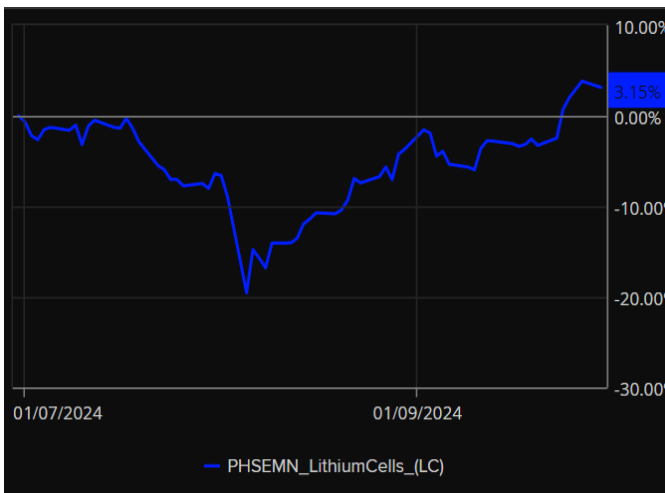


Source: Niche AM

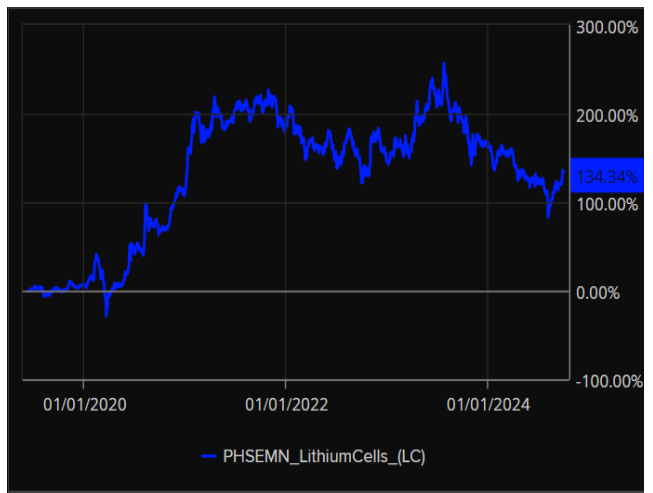
Segment breakdown



Performance Q3 2024 (30/06/24-30/09/24)



Performance since inception (10/06/19 – 30/09/24)

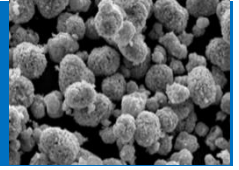


Source: Niche AM, Refinitiv

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 €): 2.908

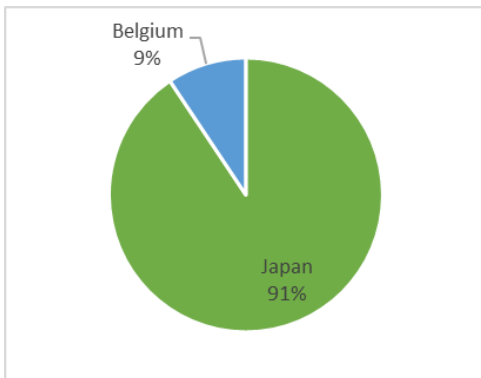
Median Market Cap (mln €): 224

Cathodes – segment breakdown

		EM Fund	Cathodes Niche
Cathodes		14.1%	100.0%
Nickel Manganese & Cobalt	NMC	2.8%	19.8%
Nickel Cobalt & Aluminium	NCA	8.1%	57.4%
Cathodes Material	CM	3.2%	22.8%

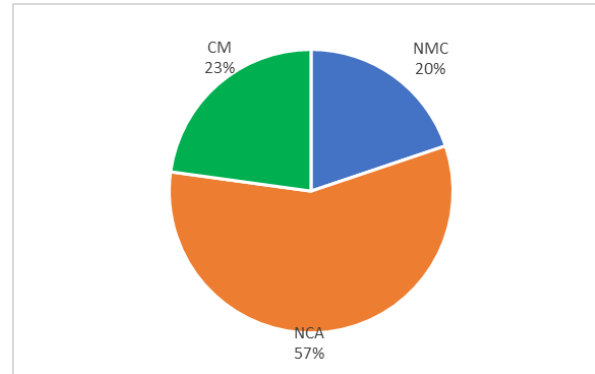
Source: Niche AM

Geographical breakdown



Source: Niche AM

Segment breakdown

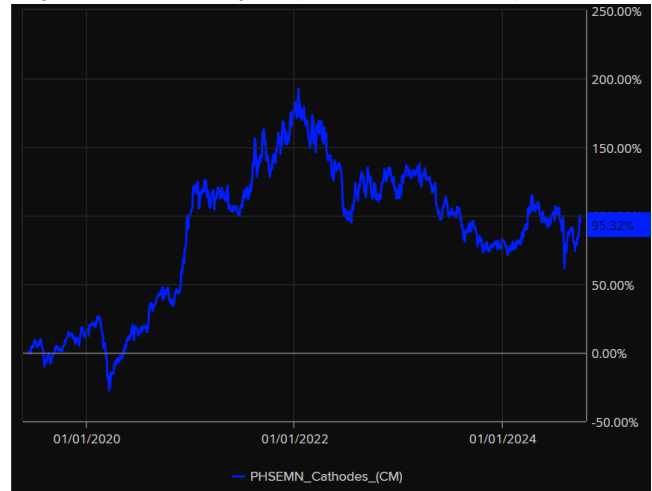


Performance Q3 2024 (30/06/24-30/09/24)



Source: Niche AM, Refinitiv

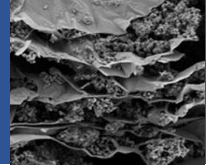
Performance since inception (10/06/19 – 30/09/24)



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 €) 6.398

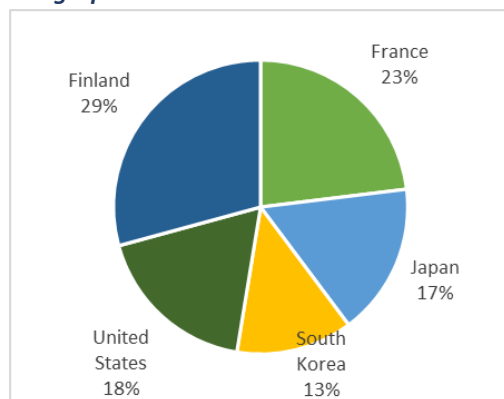
Median Market Cap (mln €): 2.536

Anodes – segment breakdown

	EM Fund	Anodes Niche
Anodes	4.5%	100.0%
Coating	1.0%	23.1%
Artificial Graphite	1.3%	29.5%
Needle Coke	2.1%	47.4%

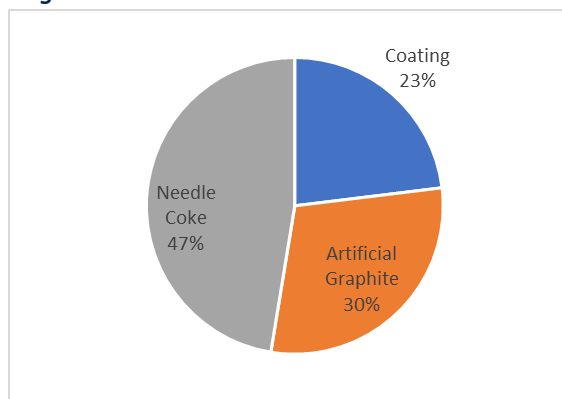
Source: Niche AM

Geographical breakdown



Source: Niche AM

Segment breakdown

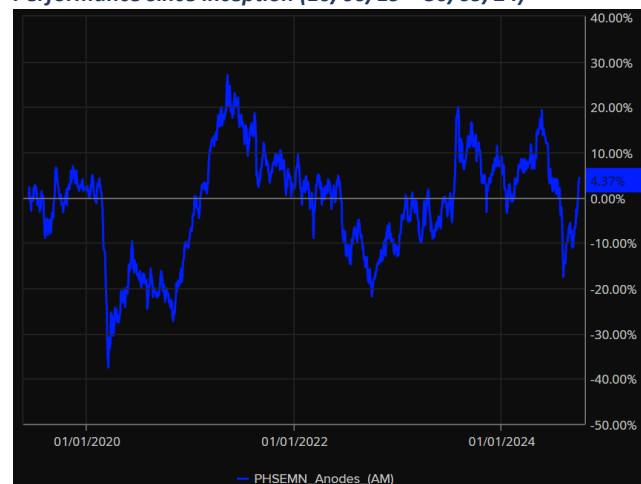


Performance Q3 2024 (30/06/24-30/09/24)



Source: Niche AM, Refinitiv

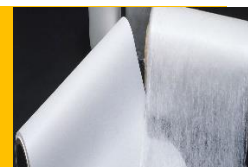
Performance since inception (10/06/19 – 30/09/24)



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 €): 2.472

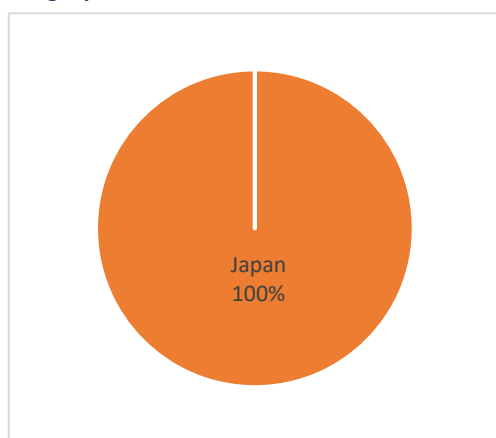
Median Market Cap (mln €): 1.770

Separators – segment breakdown

	EM Fund	Separators
Separator Maker	5.9%	100.0%
Wet Separators	4.9%	82.6%
Dry Separators	1.0%	17.4%

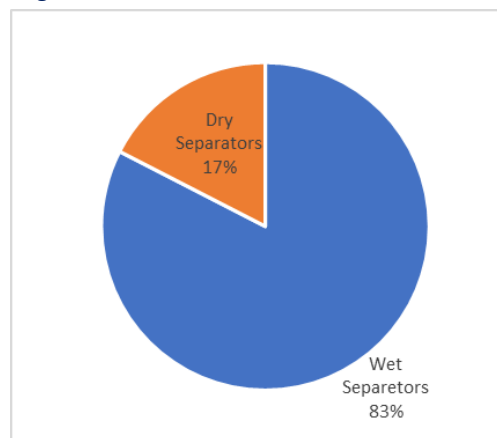
Source: Niche AM

Geographical breakdown



Source: Niche AM

Segment breakdown



Performance Q3 2024 (30/06/24-30/09/24)



Source: Niche AM, Refinitiv

Performance since inception (10/06/19 – 30/09/24)



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 €): 341

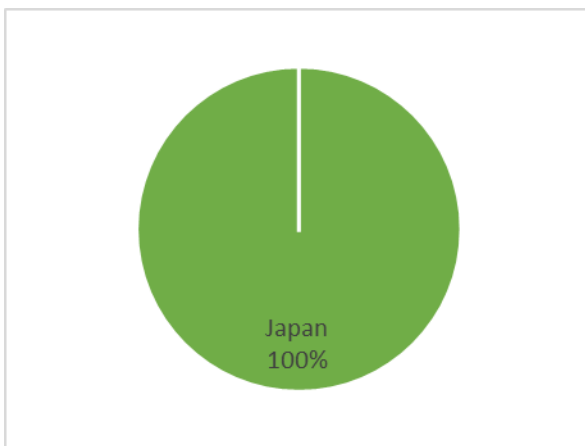
Median Market Cap (mln €): 344

Electrolytes & Elecfoils – segment breakdown

	EM Fund	Electrolytes Niche
Electrolytes & Elecfoils	1.1%	100.0%
Electrofoils	0.0%	0.0%
Electrolytes	1.1%	100.0%

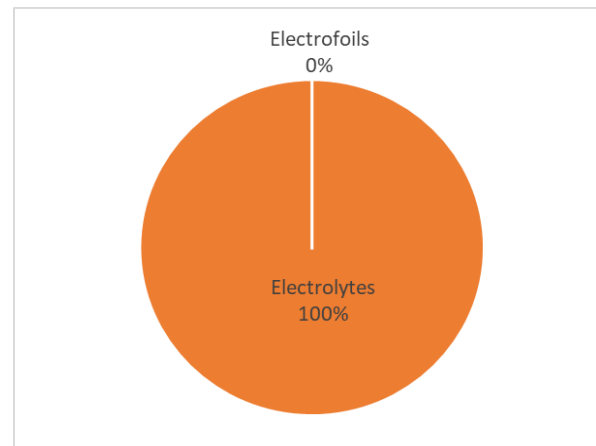
Source: Niche AM

Geographical breakdown

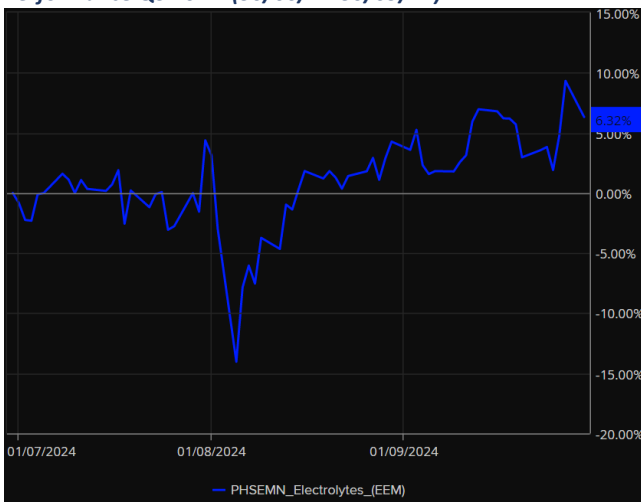


Source: Niche AM

Segment breakdown



Performance Q3 2024 (30/06/24-30/09/24)



Source: Niche AM, Refinitiv

Performance since inception (10/06/19 – 30/09/24)



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: 15

Average Market Cap (mln €): 8.571

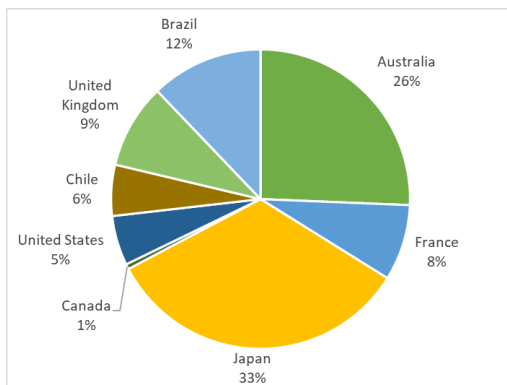
Median Market Cap (mln €): 2.035

Commodities – segment breakdown

	EM Fund	Commodities Niche
Commodities	9.8%	100.0%
Natural Graphite	1.1%	11.6%
Nickel Sulphate	3.2%	32.4%
Lithium	3.4%	35.2%
Copper	0.8%	8.1%
Cobalt	1.2%	12.5%
Vanadium	0.0%	0.1%

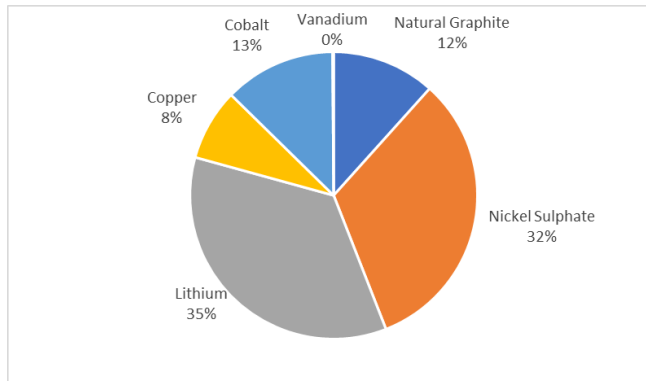
Source: Niche AM

Geographical breakdown



Source: Niche AM

Segment breakdown

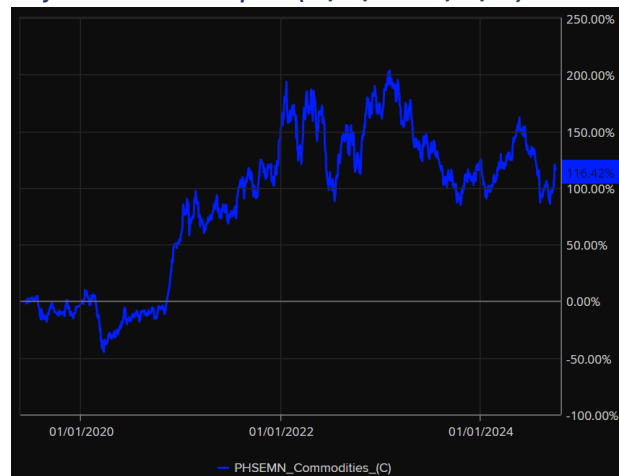


Performance Q3 2024 (30/06/24-30/09/24)



Source: Niche AM, Refinitiv

Performance since inception (11/06/19 – 30/09/24)



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 €): 6.933

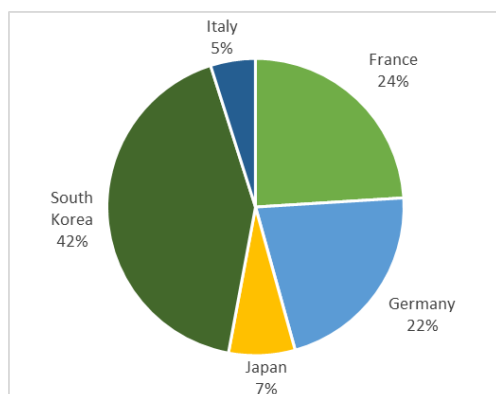
Median Market Cap (mln €): 2.646

PTs & UTs – segment breakdown

	EM Fund	Powertrains & UT
Powertrains & UTs	12.3%	100.0%
Power Trains	11.4%	92.8%
Ultra Capacitors	0.9%	7.2%

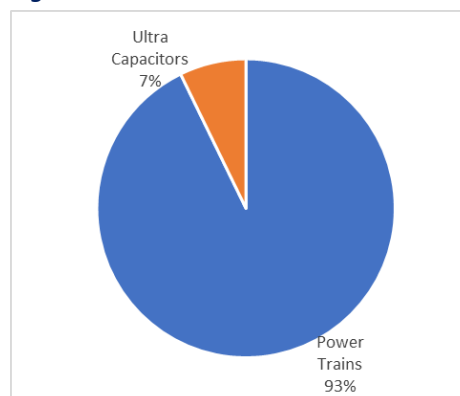
Source: Niche AM

Geographical breakdown

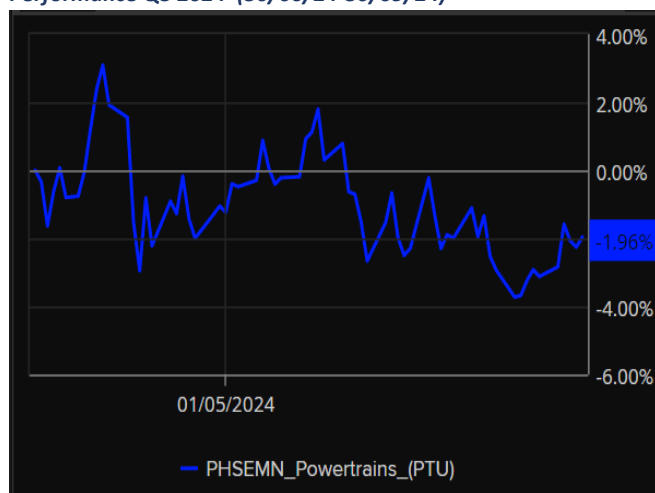


Source: Niche AM

Segment breakdown



Performance Q3 2024 (30/06/24-30/09/24)



Source: Niche AM, Refinitiv

Performance since inception (10/06/19 – 30/09/24)



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 €): 11.902

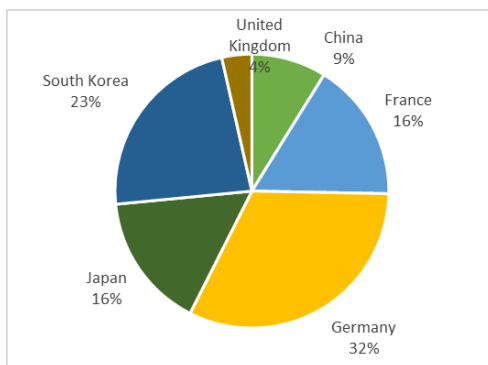
Median Market Cap (mln €): 542

Satellite Areas – segment breakdown

	EM Fund	Satellite Areas Niche
Satellite Areas	21.8%	100.0%
Sensors	2.0%	9.4%
Cars	8.7%	40.0%
Assembly Lines	3.2%	14.5%
Electrodes Cutting Equipment	0.7%	3.2%
Charging Stations	1.4%	6.3%
New Materials For Mobility	2.1%	9.7%
Lithium Batteries Assembly Machinery	0.3%	1.5%
Thermal Management Systems	0.8%	3.9%
Electric Bus	0.8%	3.5%
Electric Scooters	0.3%	1.5%
Recharging	1.4%	6.6%

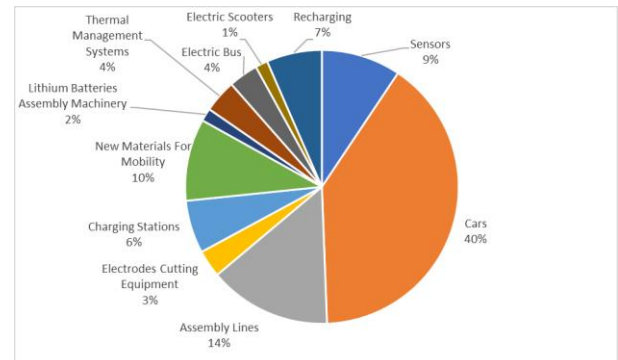
Source: Niche AM

Geographical breakdown

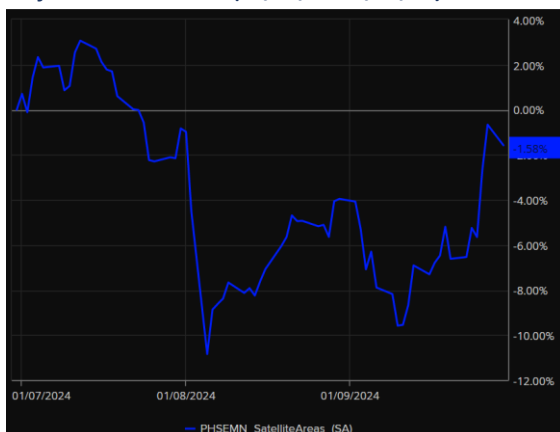


Source: Niche AM

Segment breakdown

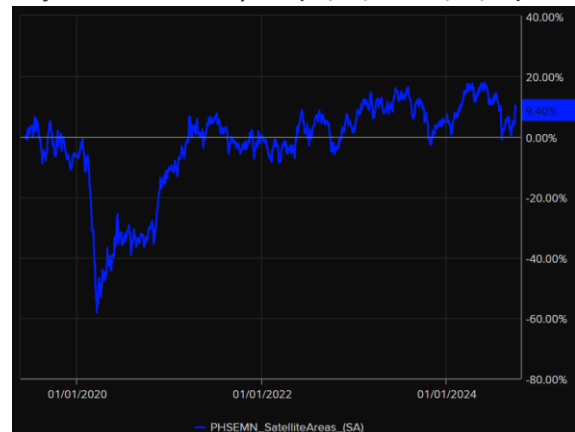


Performance Q3 2024 (30/06/24-30/09/24)



Source: Niche AM, Refinitiv

Performance since inception (10/06/19 – 30/09/24)



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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