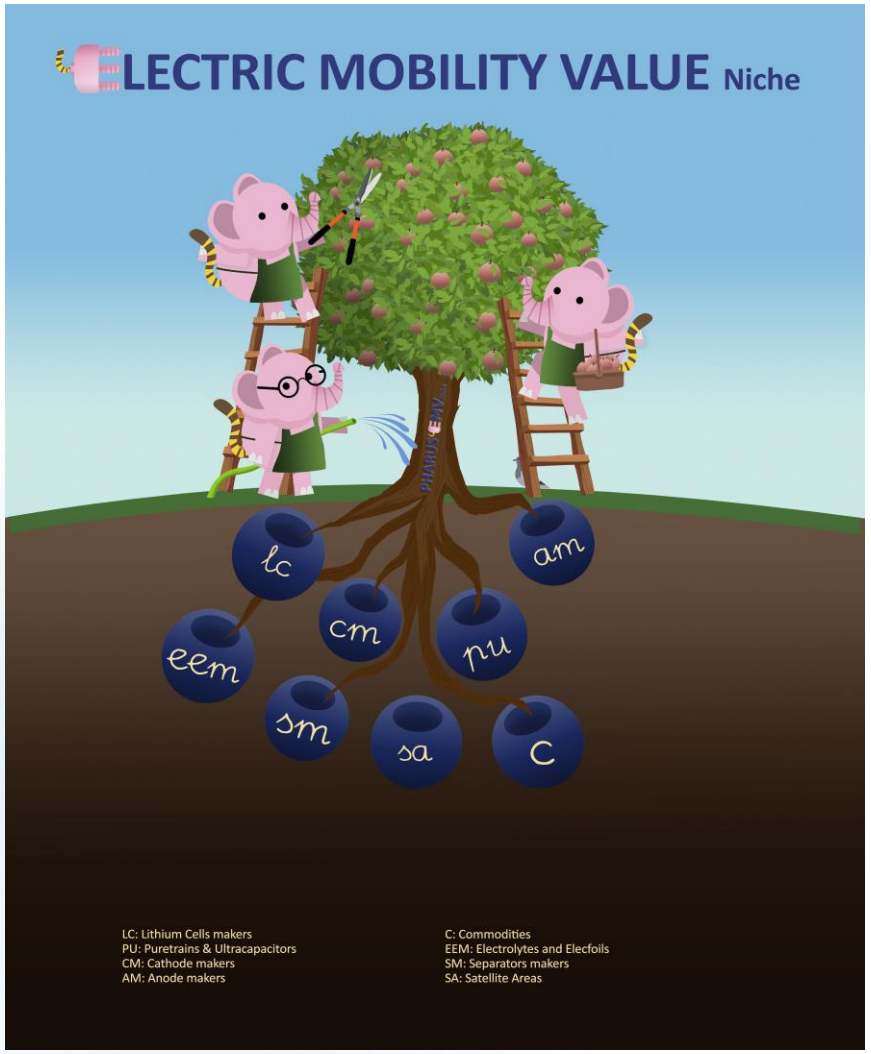
Electric Mobility Value Niche

This is a marketing communication. Please refer to the prospectus of the UCITS and to the KIID before making any final investment decisions



Flexible equity fund offering exposure to the electric car battery ecosystem

Fund that invests in a growth theme using a value approach, eliminating the risk of investing in bubble stocks/areas

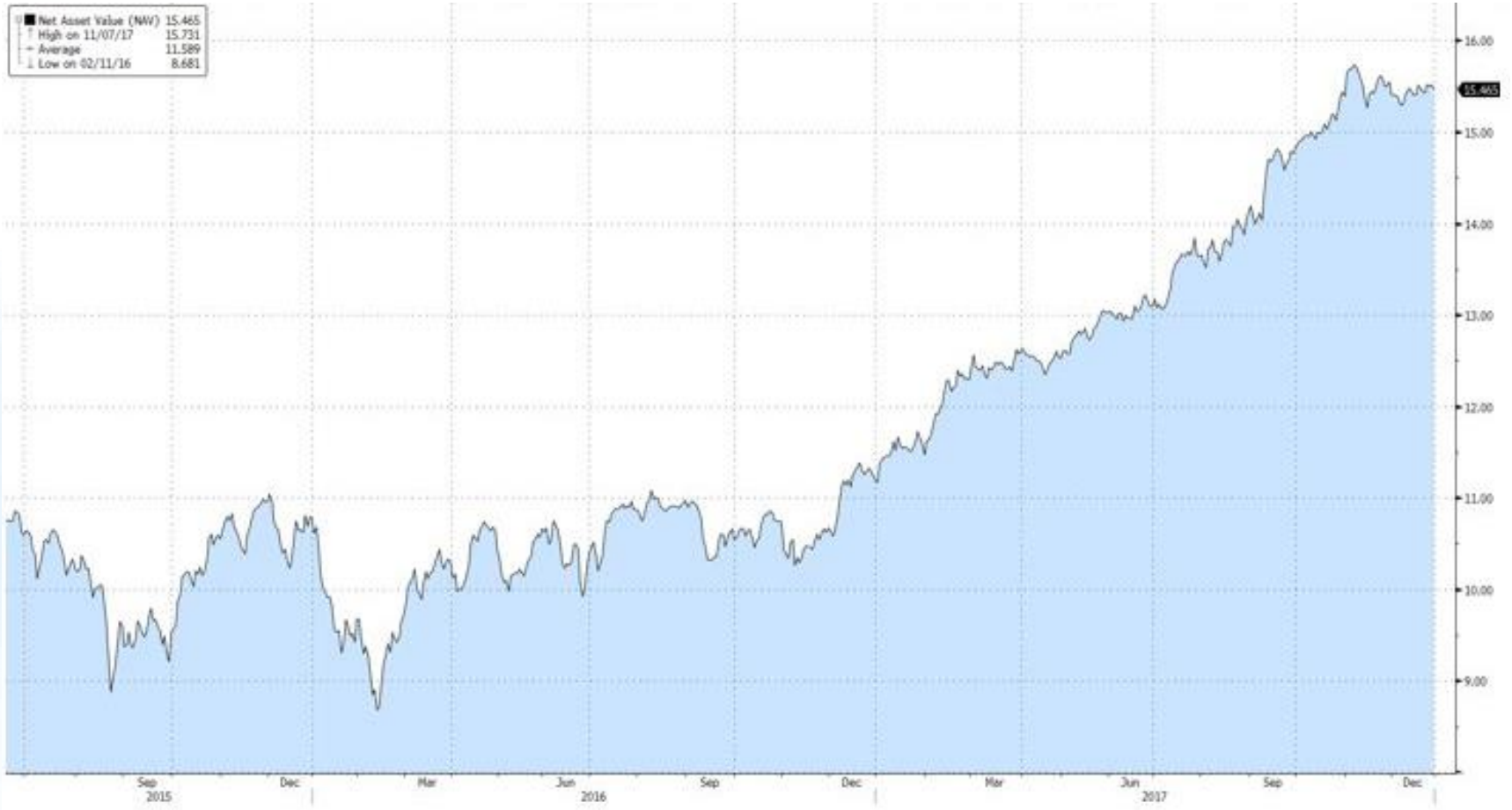
The fund seeks to identify electric mobility players not recognised by the market as such, targeting a possible significant subsequent rerating

The Niche AM team has been studying and working on the e-mobility sector **since 2012.**
The team launched in **2015,** with the previous firm it worked for (Symphonia sgr), the **world's first fund focused on e-mobility**, which the team managed until the end of 2017

The fund was launched in June 2019

Article 9 classified fund according to SFDR regulations

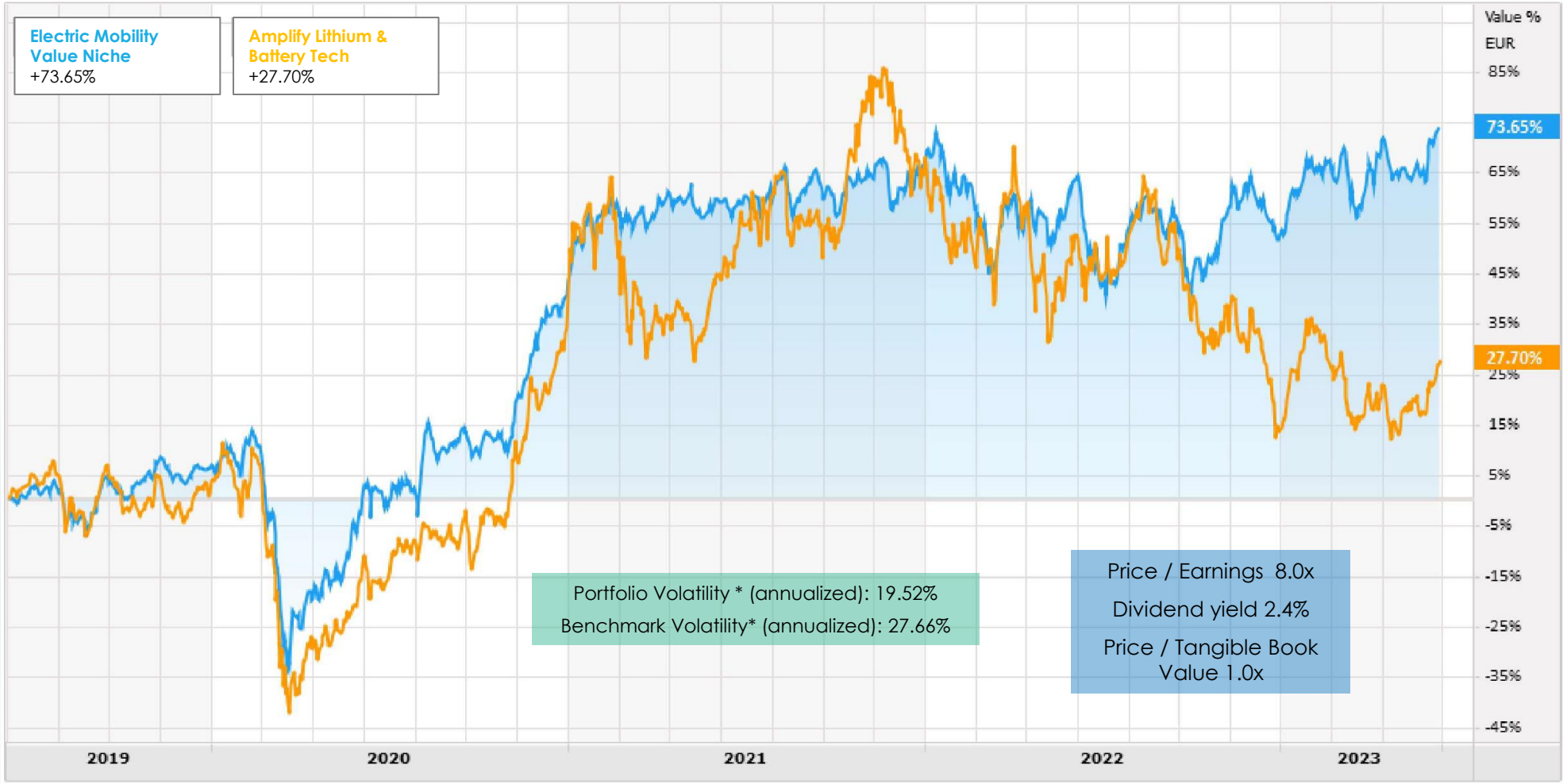
Track record: Symphonia Electric Vehicle Revolution
Performance since inception (17/06/2015) to 31/12/2017 (when the team left Symphonia)



Source: Bloomberg, data net of fees

These data refer to the past and are not an indication of future performance

Track record: Electric Mobility Value Niche
Performance since inception – class B (10/06/2019 to 14/06/2023)



** As of 31/05/23*

Source: Thomson Reuters Eikon

These data refer to the past and are not an indication of future performance

Fund Performance Vs main indices

Index	Price as of 31/05/2023	% Price Change 1 month (local currency)	% Price Change 1 month (€)	% Price Change 3 months (local currency)	% Price Change 3 months (€)	% Price Change YTD (local currency)	% Price Change YTD (€)	% Price Change Since inception ** (local currency)	% Price Change Since inception ** (€)
Electric Mobility Value Niche*	**162,82**	**-**	**-0,87%**	**-**	**-0,17%**	**-**	**7,40%**	**-**	**62,82%**
Lithium Cells	-	-	*7,57%*	-	*22,04%*	-	*26,12%*	-	*209,43%*
Cathodes	-	-	*-8,86%*	-	*-13,84%*	-	*-9,46%*	-	*97,52%*
Anodes	-	-	*-0,33%*	-	*-3,66%*	-	*6,43%*	-	*-6,72%*
Electrolytes & Elecfoils	-	-	*8,55%*	-	*11,53%*	-	*12,28%*	-	*61,35%*
Separators	-	-	*-11,37%*	-	*-9,91%*	-	*-5,15%*	-	*-18,61%*
Commodities	-	-	*-8,07%*	-	*-20,50%*	-	*-15,90%*	-	*123,43%*
Powertrains & Ultracapacitors	-	-	*6,48%*	-	*0,22%*	-	*17,63%*	-	*25,18%*
Satellite Areas	-	-	*0,28%*	-	*-0,62%*	-	*6,76%*	-	*8,41%*
Global X Lithium & Battery Tech ETF (LIT)	60,84	1,01%	4,15%	-4,58%	-5,58%	5,01%	3,61%	134,27%	147,95%
Amplify Advanced Battery Metals and Materials ETF (BATT.K)	12,06	-1,95%	1,09%	-5,93%	-6,91%	4,06%	2,67%	9,49%	15,88%
Tokyo Stock Exchange (.TOPX)	2130,63	3,56%	4,43%	6,89%	3,39%	14,05%	7,65%	37,20%	13,00%
Korea (.KS200)	339,12	3,88%	8,50%	7,73%	6,80%	17,02%	12,18%	24,63%	18,17%
Europe (.STOXX)	451,76	-	-3,19%	-	-2,03%	-	5,32%	-	19,43%

The performance of the single Niches are gross of fees
** Class B*
*** Inception date: 10/06/2019*

Source: Niche AM, Thomson Reuters

Pharus Electric Mobility Value Niche: awards

2021

Top 300 funds 2020
CFS Rating

2022

Top 300 funds 2022
CFS Rating

2022

Best Technology Equity Fund
Premio Alto Rendimento
Il Sole 24 Ore

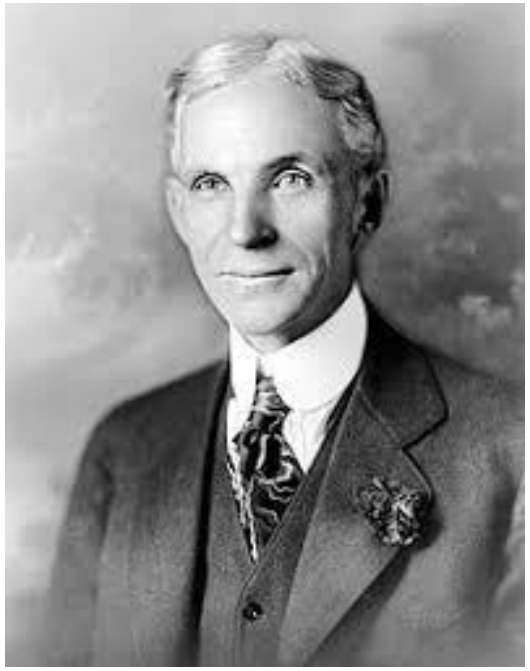
THE 2 GREAT REVOLUTIONS IN THE AUTOMOTIVE SECTOR

1900

Ice market share:
22%

Electric Vehicle market share:
>50%

Henry Ford



Elon Musk

2022*

Ice market share:
84%

Electric Vehicle market share:
16%

* *December '22*

1900 – ICE revolution

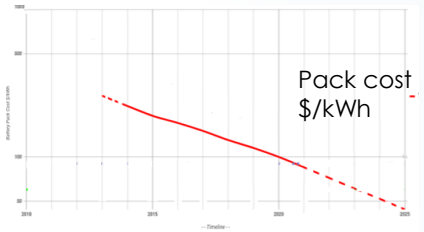
SIMILARITIES

Technological breakthroughs

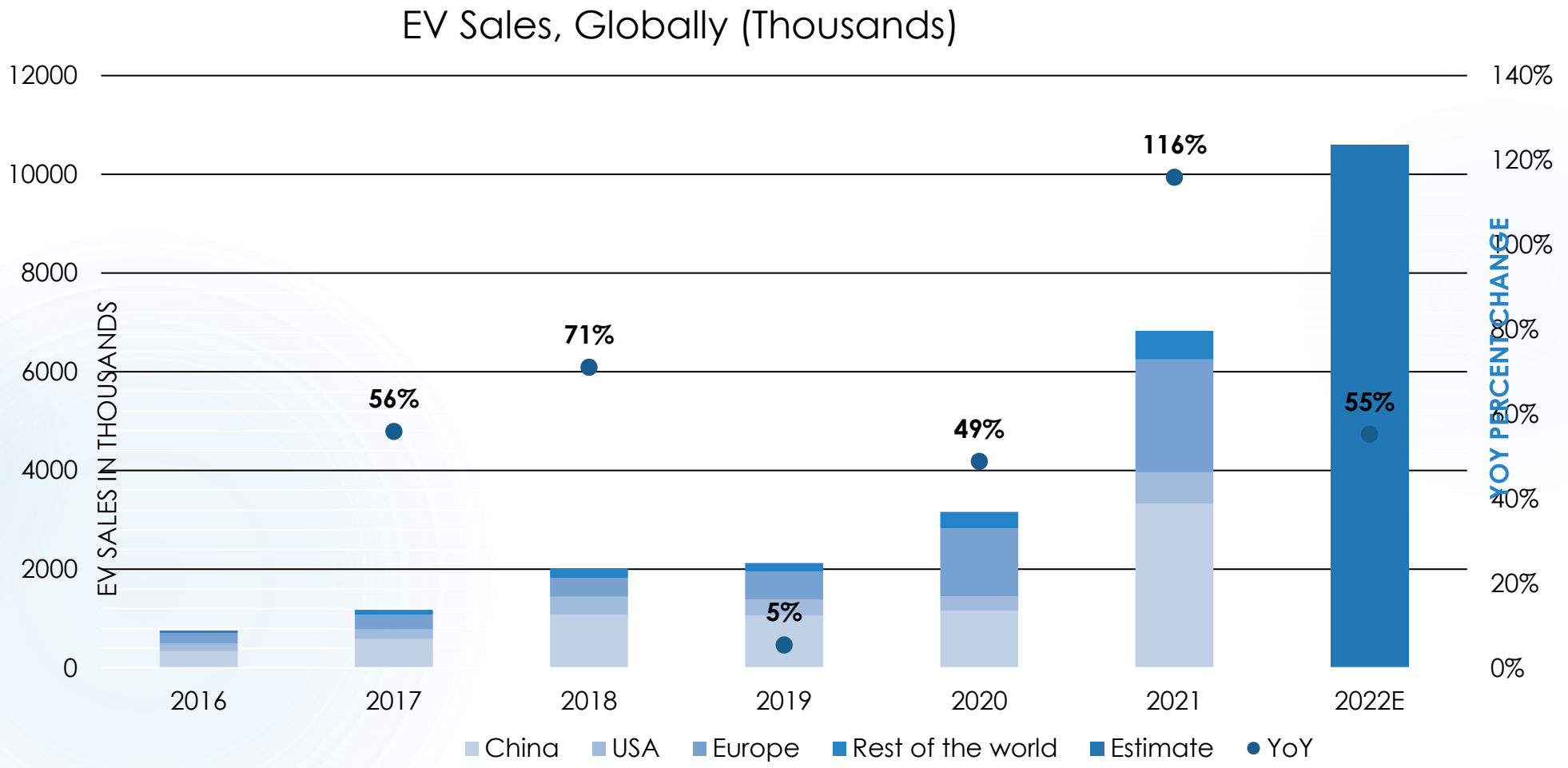
Cost advantages

Political support

2022 – EV revolution



Electric Mobility: Where are we?

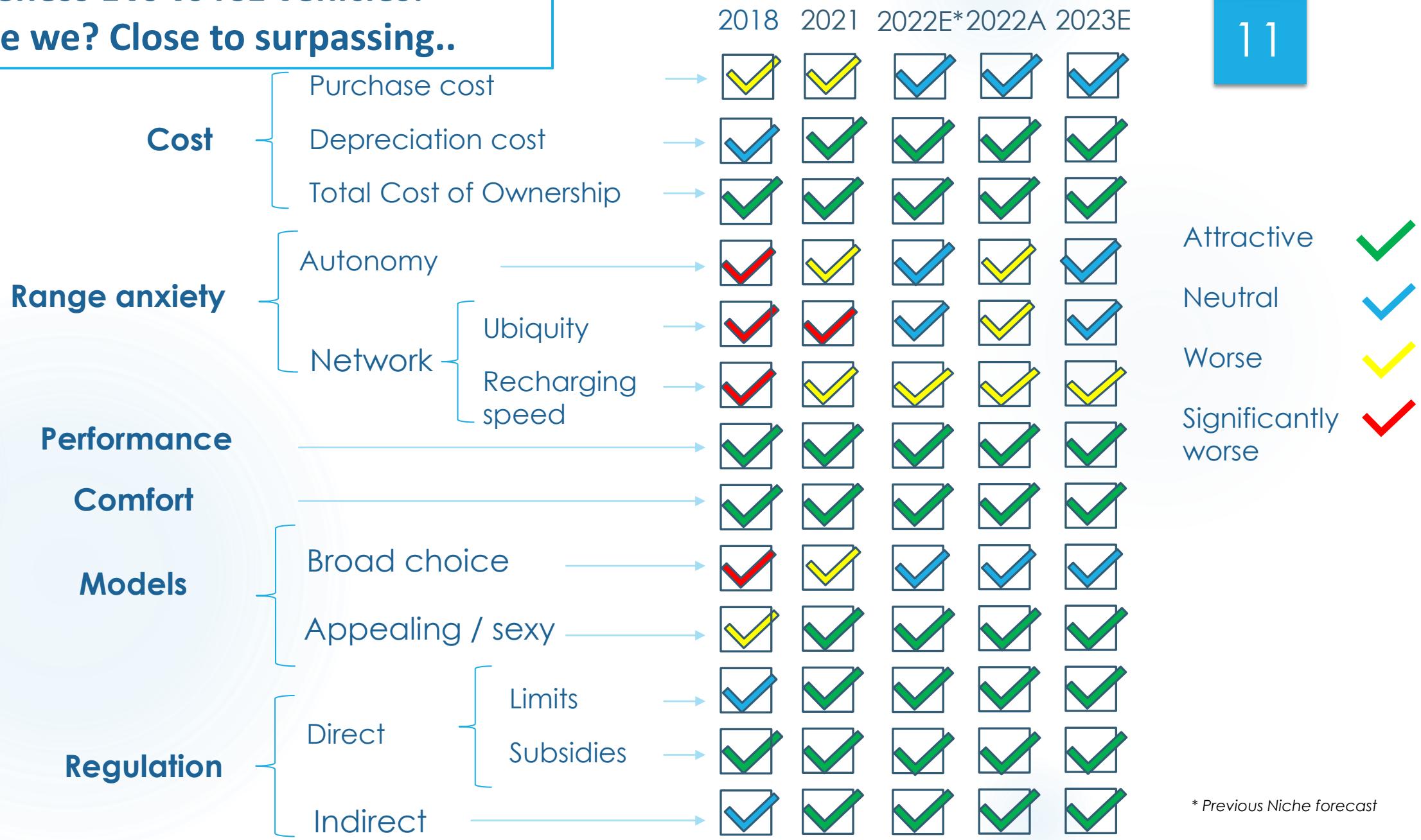


Source: IEA, EV-Volumes, NicheAM,

Electric Mobility: Where are we going?

Source: NicheAM

Attractiveness EVs vs ICE vehicles: where are we? Close to surpassing..



* *Previous Niche forecast*

Actual **Total Cost of Ownership**: EV overtakes ICE !

ID3 business

BEV **€ 42,200**

	5Y - €
Fuel	4450
Maint. Ins & Repair	4900
Depreciation	21100
Total	**€ 30,449**

Golf 8 GTD

ICE **€ 43,250**

	5Y - €
Fuel	10830
Maint. Ins & Repair	7000
Depreciation	30275
Total	**€ 48,105**

For comparable vehicles having the same characteristics:
*- kW: **150** for **ID3** vs **147** for **Golf GTD***
*- CV: **204** for **ID3** vs **200** for **Golf GTD***
*- 0-100 km/h: **7.3s** for **ID3** vs **7.1s** for **Golf GTD***

BEV is 37% cheaper without subsidies

In several countries there are subsidies at the time of purchase or other non monetary benefits that are difficult to incorporate into the analysis, which make the economics of an electric car even more compelling

Main assumptions:

- 15,000 km per year
- Electricity cost (European average): kwh 0,45€ (70% home charging – 30% charging network)
- Fuel cost (European average): 1.9 euro per liter for diesel
- Maintenance, Insurance and Repair costs are 30% lower overall for Evs:
  - Maintenance: 25% lower
  - Repair: 40% lower
  - Insurance: same ICE and EV
- Depreciation: 14% annually for ICE vehicles vs 10% for EVs

Source: NicheAM - November 2022

Autonomy is no longer an issue

Tesla Model 3 – long range (75 Kwh)
Autonomy: 602 km

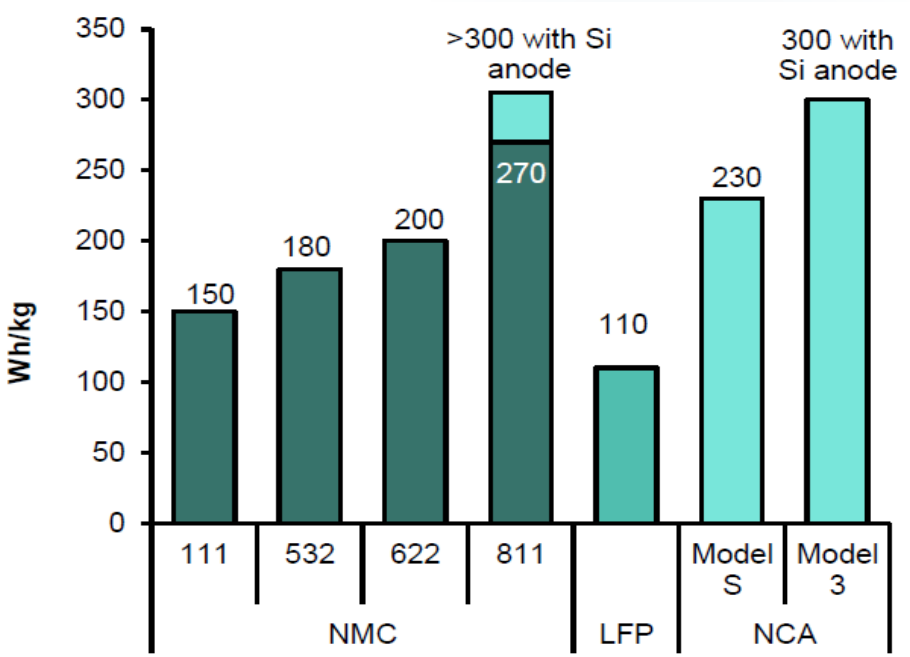
Volkswagen ID3 (77 Kwh)
Autonomy: 550 km

Hyundai Kona (64 Kwh)
Autonomy: 484 km

Source: NicheAM

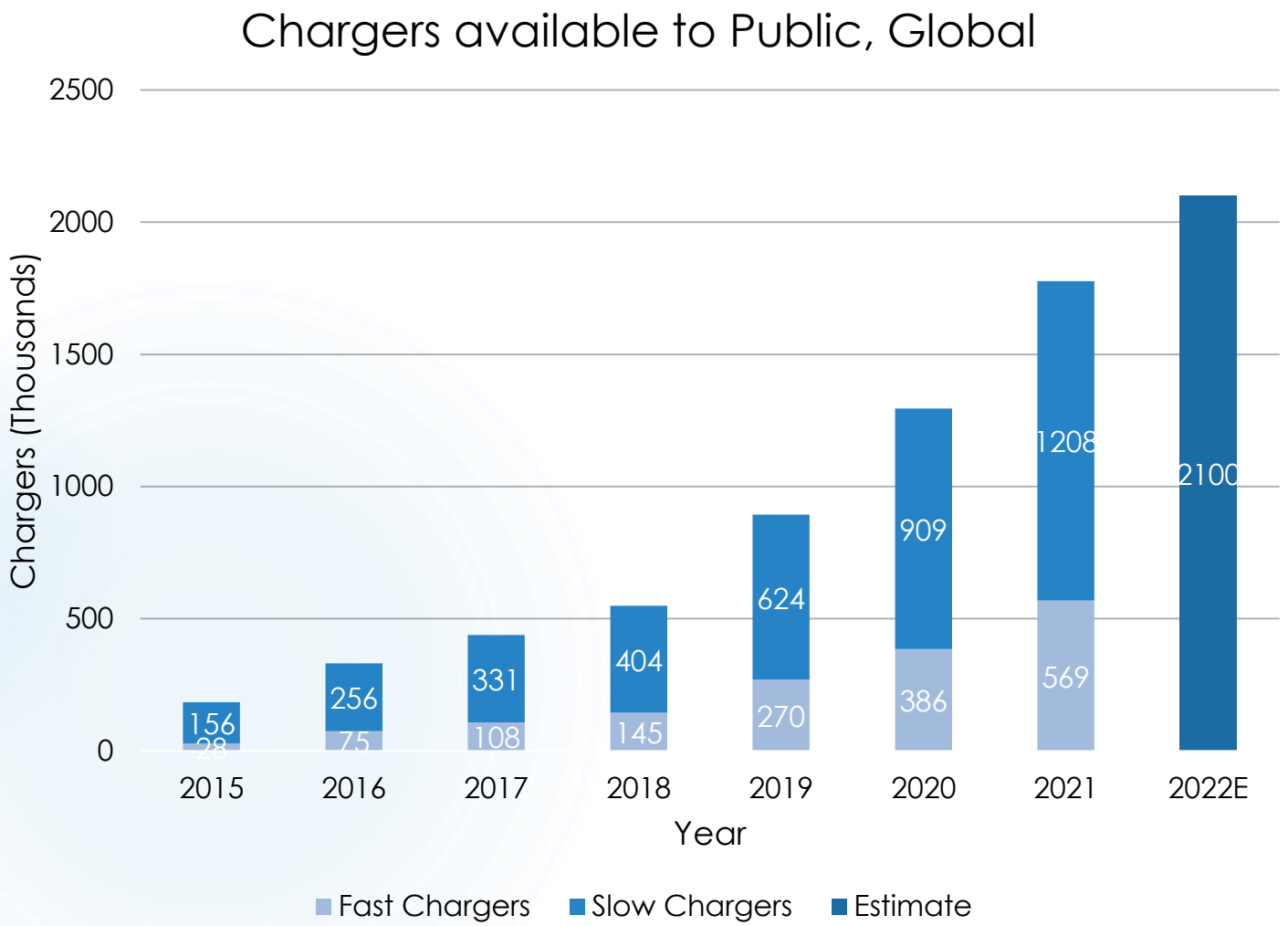
… MORE TO COME!

Chemistry-energy density by cathode

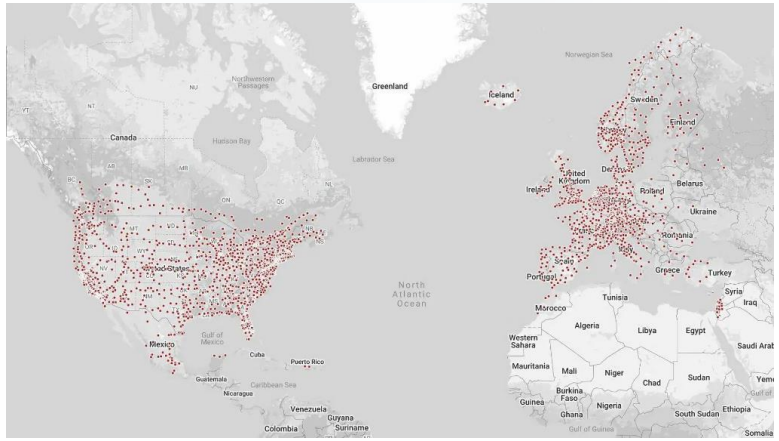


Source: SNE Research

Charging network ubiquity still inadequate but growing fast



Tesla supercharger: growth >30% 2022E



Source: Tesla as of December 2021

Source: IEA. License: CC BY 4.0, 2022 Estimate by Gardner

Charging speed technology improving dramatically

Actual system

Typical fast chargers:
22 / 50 kW

Tesla Superchargers:
120 kW

New systems

IONITY, a joint venture of BMW, Daimler, Ford, and Volkswagen group, is developing a **350 kW** of charge network

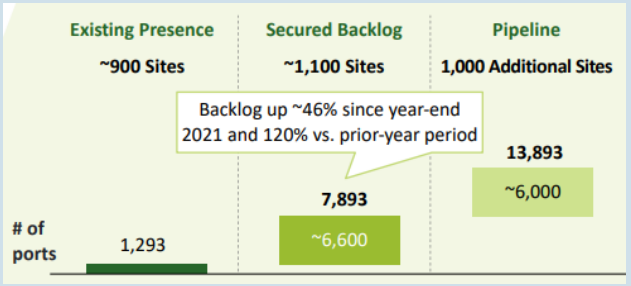
Ionity charging network

*Ionity network is growing fast, with projected **7,000** high power chargers along major European highways by 2025 (**1900** charging points October '22)*

New EV high power charging station with capacity of up to **400 kW** developed by **Wallbox** and **Tritium**

Ambitious plan of networks of listed players

Allego: fast/ultra fast charging network pipeline



EVs performance cannot be matched

Tesla Roadster

0-100km/h 2.1s

price 200k $

Vs

Ferrari 812

0-100km/h 2.9s

price 330k $

Lamborghini Aventador S

0-100kn/h 2.4s

price 400k $

Tesla 3 AWD

0-100 km/h 3.1s

Price 70k usd

Vs

BMW M3

0-100km/h 3.7 s

Price 115k $

EVs provide a far better **driving comfort**

No vibrations

No gears

Silence

Low maintenance

EVs model attractiveness: several models reached the market increasing appetibility of Evs

Fiat 500 e
Price: € 33,150
Autonomy: 329 km

Honda e
Price: € 31,600
Autonomy: 222 km

Hyundai Kona Electric
Price: € 36,150
Autonomy: 484 km

Renault Megane E-tech
Price: € 36,800
Autonomy: 470 km

Audi Q4 e-tron
Price: € 50,800
Autonomy: 528km

Ford Mustang Mach-E ER
Price: € 62,700
Autonomy: 440 km

Tesla Model Y Long Range
Price: € 65,990
Autonomy: 533 km

Audi e-tron Quattro
Price: € 110,420
Autonomy: 446 km

Source: carmaker company website as of 31/10/22

Attractiveness of Evs models: approaching a turning point in Europe

Some of the new models coming to the European market

IONIQ6 - 2023

Lucid Air - 2023

Jeep Avenger - 2023

Chevrolet Blazer EV2023

Mercedes EQE - 2023

BYD Atto 3 - 2023

Regulation is supportive

Direct effect

Europe:

- **The European Union** has recently approved effective **ban on ICE**, Hybrids and plug-in hybrid from **2035**
- The deal also included a **55% cut in CO2 emissions for new cars sold from 2030** compared to 2021 levels (higher than the existing target of a 37.5% reduction by then)

USA:

- The US Government signed the Inflation Reduction Act (IRA) into law, offering a $7,500 tax credit on eligible new EV's at each point of sale, and $4,000 tax credit on eligible used EV's.
- Ambition: 50% share of EVs in passenger LDV sales by 2030.

Indirect effect

Free parking

Parking spot reserved

Access to priority lanes

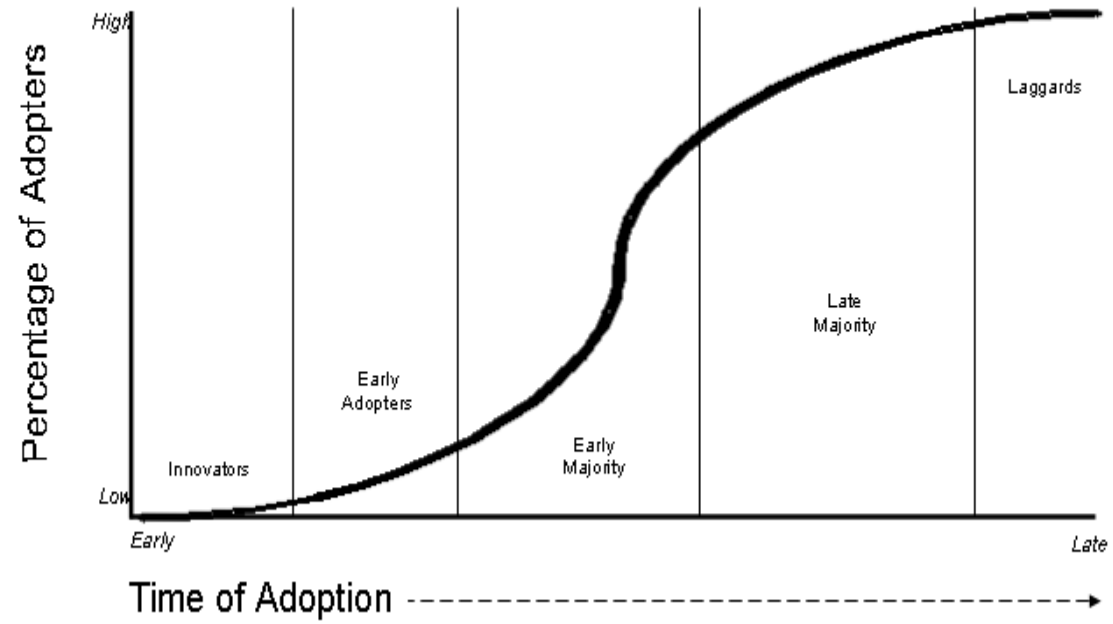
Free access to city centre

The electric vehicles:

- are more performing
- are more comfortable
- are cleaner and with no circulation constraints
- require much less maintenance
- are cheaper than ICE

Two different technologies cannot coexist if one of those is clearly better than the other

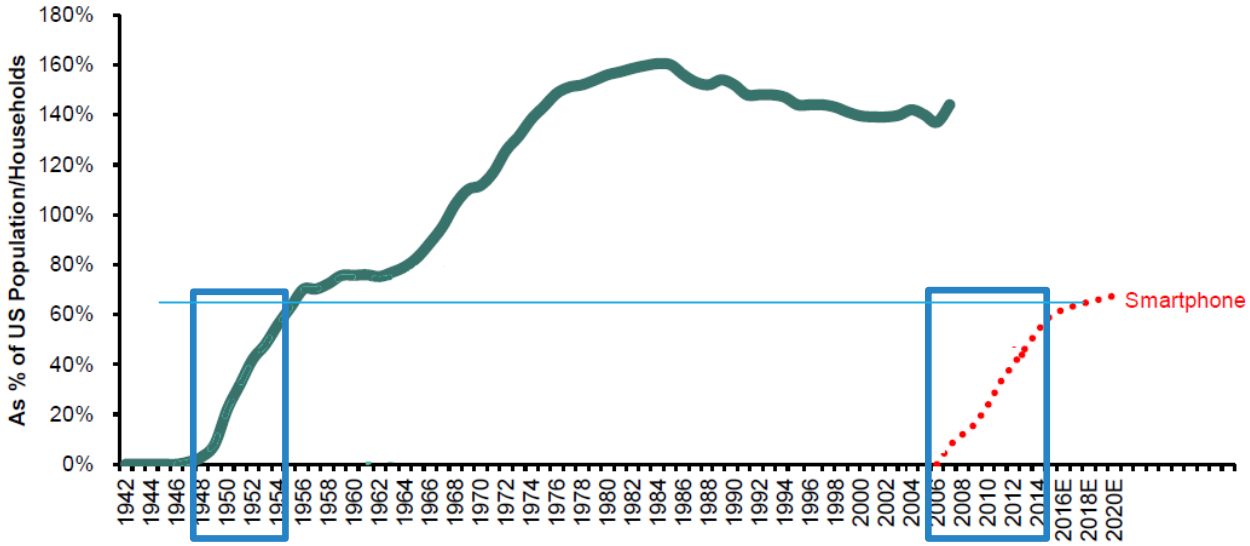
How could we predict the penetration speed of EVs?

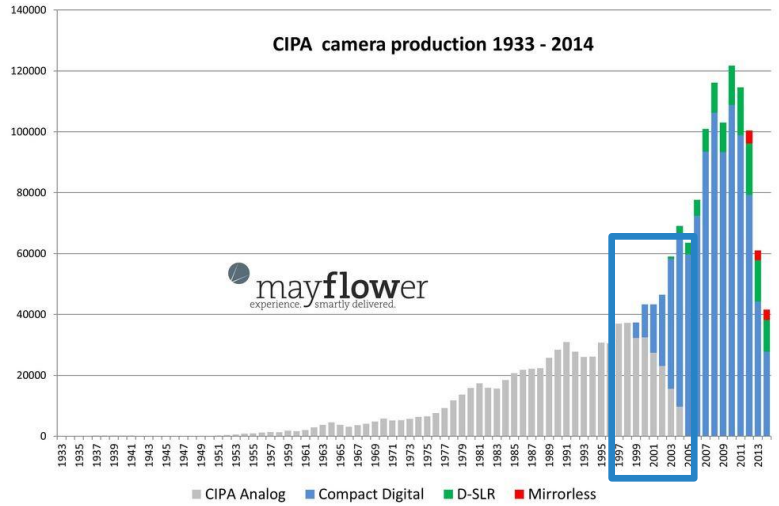


Let's have a look at the new technologies' penetration curves

Lessons from previous disruptions

Penetration curves for TVs and Smartphones in the USA, digital camera worldwide





TIME TO GO FROM 1% TO 60% SALES PENETRATION:

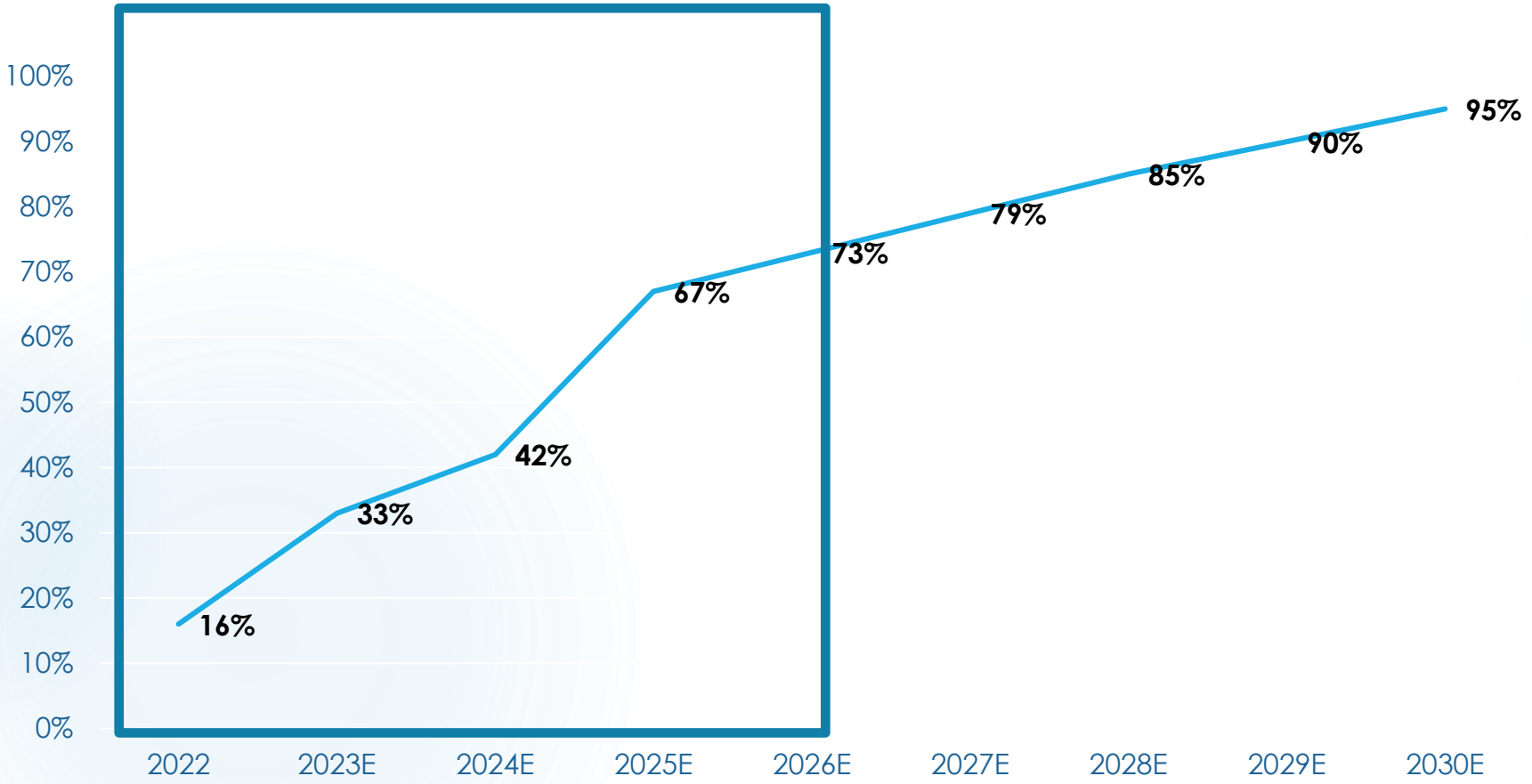
Television – 7 years (1947-1954) – Cagr 79%

Smartphone – 8 years (2006-2014) – Cagr 65%

Digital camera – 5 years (1998-2003) – Cagr 127%

Electric Vehicles Cagr? We go for the lowest one, 65%

Demand dynamic according to Niche AM



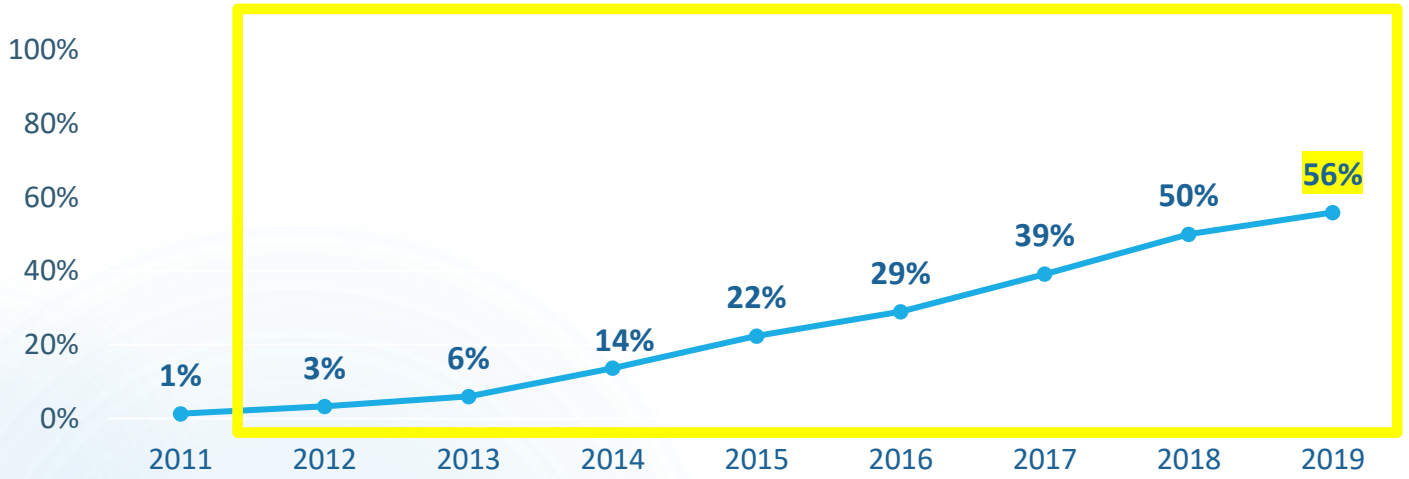
Source: Niche AM

Our demand scenario assumes:

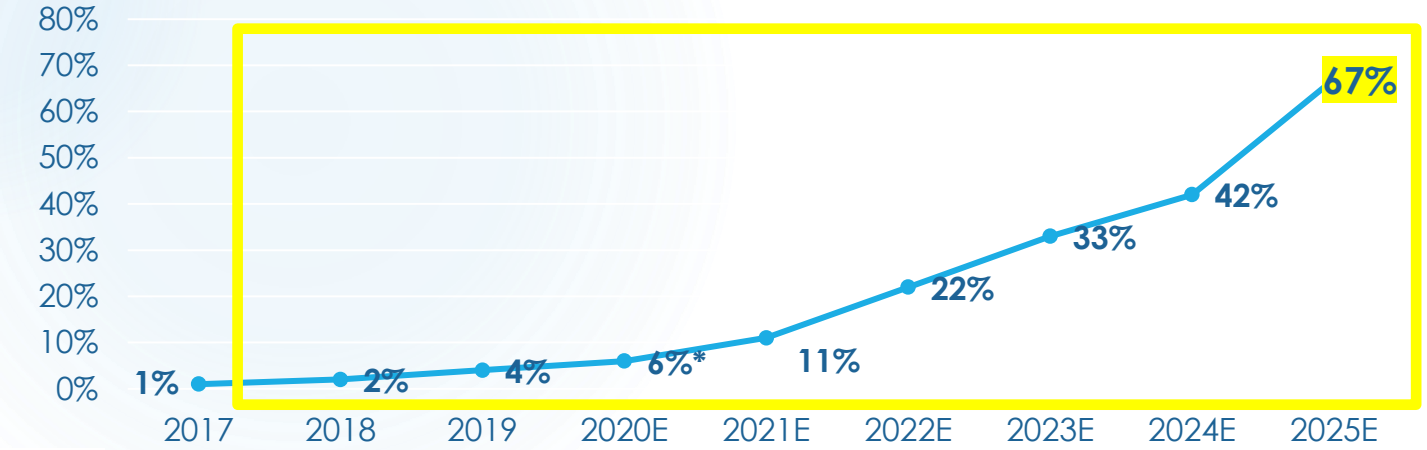
- **65% penetration Cagr**
- EV cost parity with ICEs by 2023-2024;
- **No capacity constraints on the supply side**

Let's double check the data obtained with the Norway case: from 1% to 50% in 7 years (CAGR 68%)

Norway *market share of electric cars*



*NicheAM EV demand estimates**



Source: CleanTechnica, Niche AM

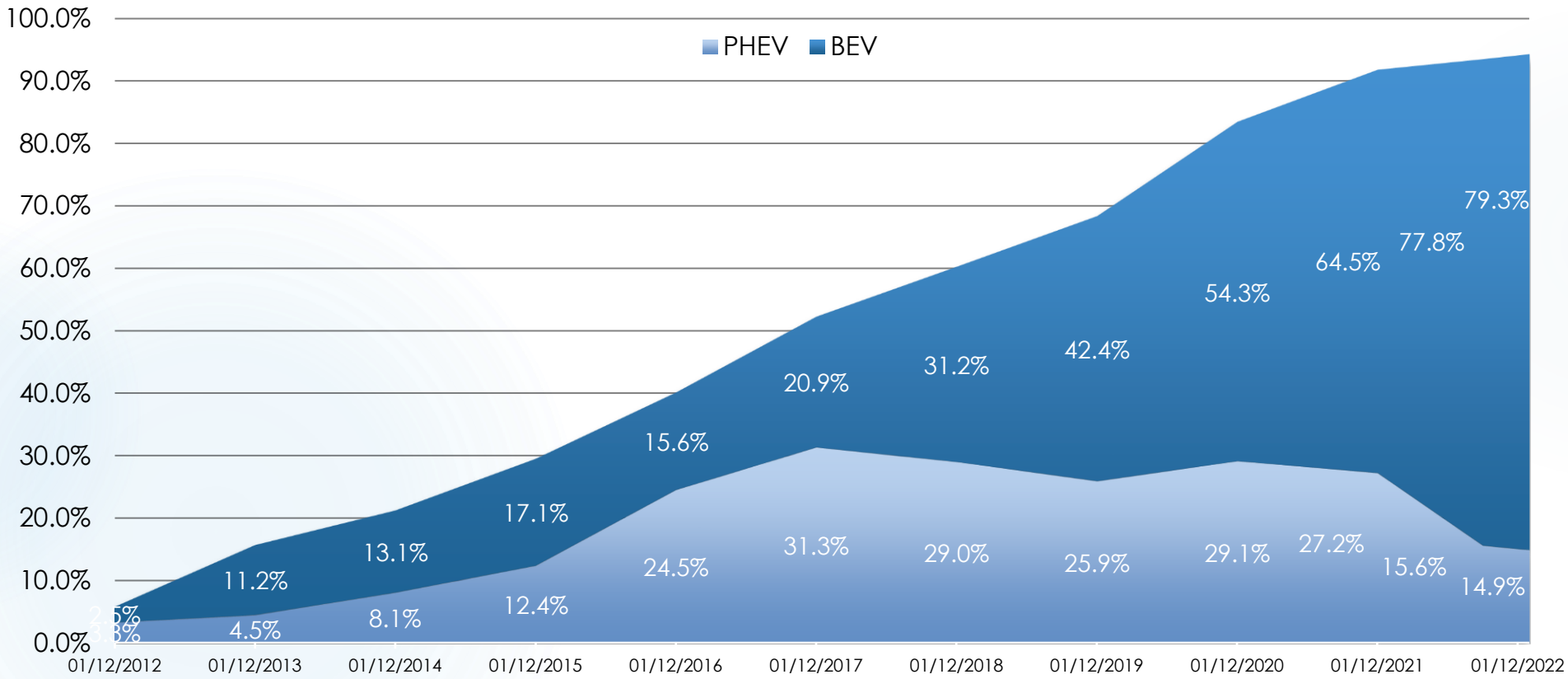
This growth in Norway has been recorded mostly thanks to the government support, despite the low driving range in those years:

this is why we expect the penetration to be faster 7 years later, thanks a better technology, refilling network and broad range of EVs available. And we are sure to err on the cautious side…

** YEAR END*

Let's double check the data obtained with the Norway case:

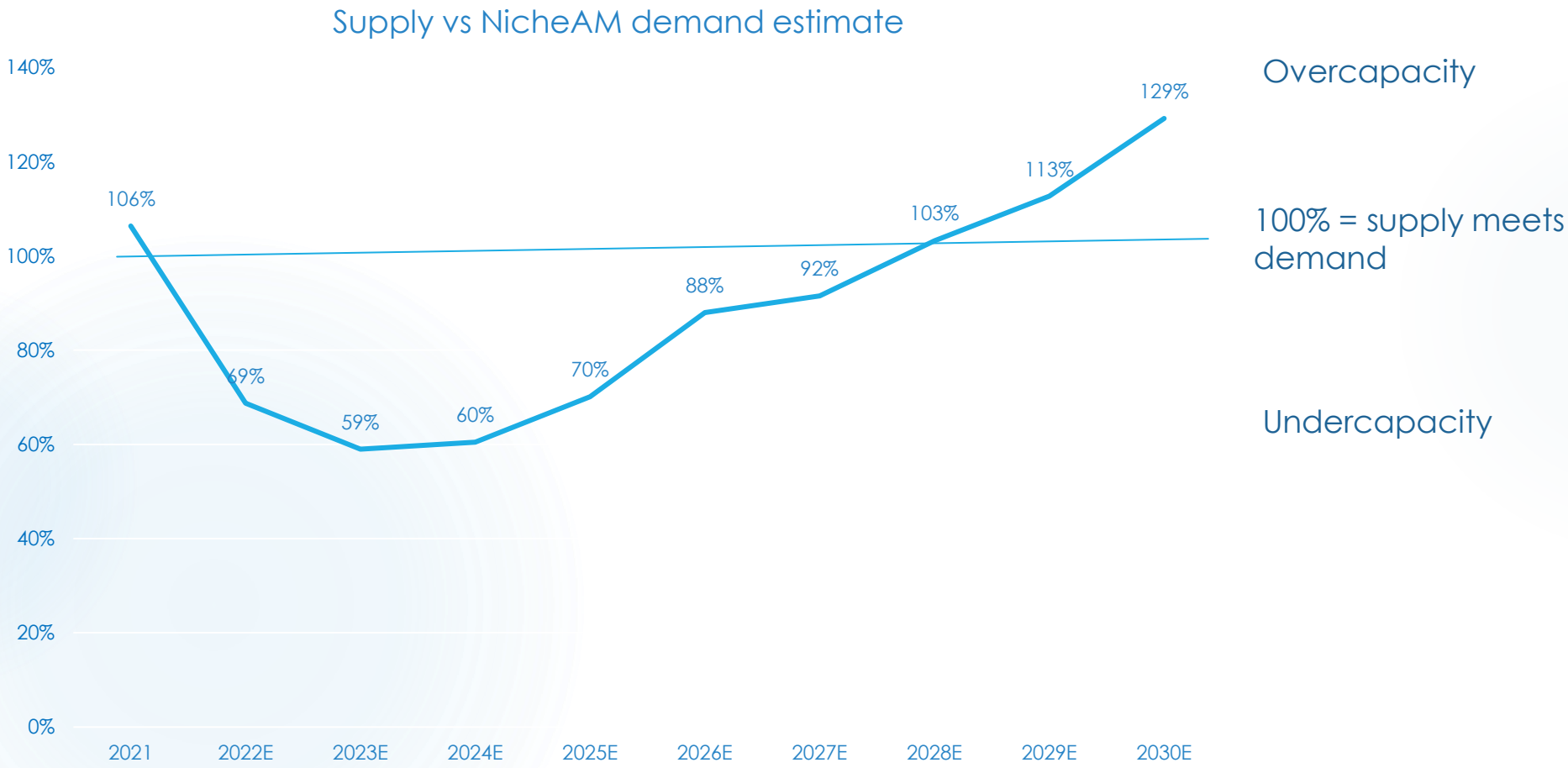
Since our last update, the market share increased further



In December 2022, the market share of EV sales reached 94.2% (PHEV+BEV)

Source: ofv.no

Batteries could face massive undercapacity



Source: Niche AM

Let’s analyse the batteries production capacity vs our demand estimates

	2021	2022E	2025E	2027E	2030E
Real Battery Supply (Gwh)	519	712	2156	3154	4962
Hp. 13% production ded. to ESS	*87%*				
Hp. average car power	*50 kWh*				
Max. # EVs (mln)	9	12	38	55	86
Total Light duty vehicles (mln)	77	82	80	76	70
Pot. EV supply as % global car sales	***12%***	***15%***	***47%***	***72%***	***123%***
NicheAM demand estimates	***6%***	***22%***	***67%***	***79%***	***95%***

Source: Niche AM

UNDERCAPACITY COULD LEAD TO:

- PRICE INFLATION
- MARGIN EXPANSION
- **MASSIVE SURGE IN STOCK PRICES** FOLLOWING (1)EARNING ESTIMATE REVISIONS AND (2)RERATING BASED ON HIGHER FUTURE GROWTH EXPECTED

«Every technology breakthrough takes twice long as we expected and half as long as we are prepared for» (Malone law n3)

The Kodak case

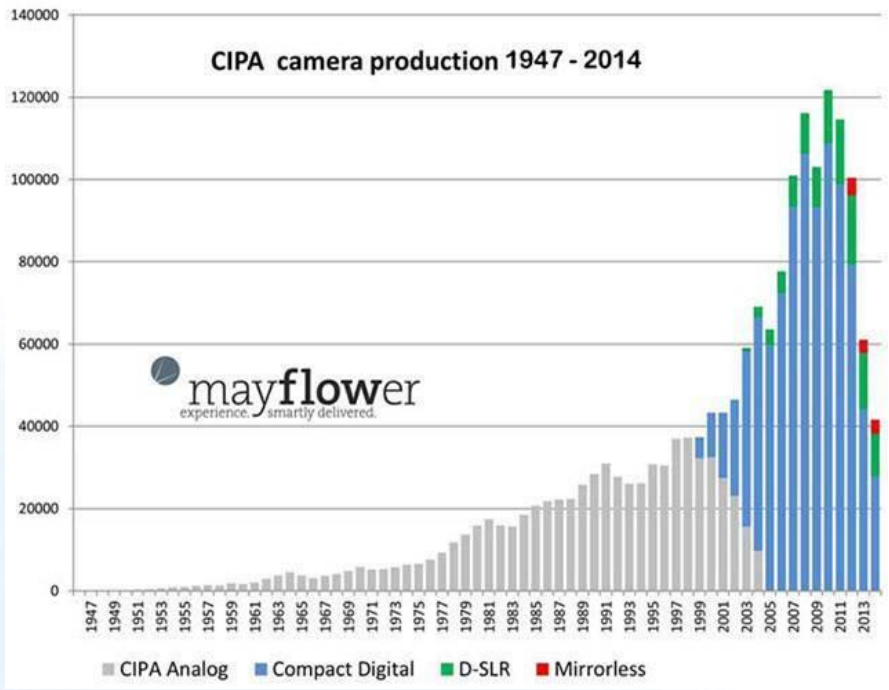
1991
Launch of the first digital reflex targeting the professional photographers: expensive and bulky

1998
Launch of the first high performance digital camera (2/3 megapixels) targeting the retail market: cheap and handy

2012
Tesla S

2018
Tesla 3

The Kodak case shows how investors can fail to understand the change



The shift towards the new digital camera was drammatically rapid

The market did not foresee the consequences

The Niches of the fund

- Lithium Cells makers (LC)
- Cathode makers (CM)
- Anode makers (AM)
- Separators makers (SM)
- Electrolytes and Elecfoils (EEM)
- Commodities (C)
- Powertrain and Supercapacitors (PTU)
- Recharging equipment, infrastructure & electric fleet
- Adas electronics
- Adas connectivity
- EVs Makers
- New materials for mobility

CORE

SATELLITE

The focus is on Batteries

A Value approach to a Growth sector: few examples

Lithium cells

	Main valuation metrics
Panasonic	PE ’03/25E 11,5x; P/BV tangible: 1,1x; low fin. leverage

Cathode makers

	Main valuation metrics
Nippon Chemical Indus.	P/E ‘03/25E: 11,1x; P/BV tangible: 0,4x; no financial leverage

Anode makers

	Main valuation metrics
Posco holding	P/E ‘24E: 8,2x; P/BV Tangible 0,6x, no financial leverage

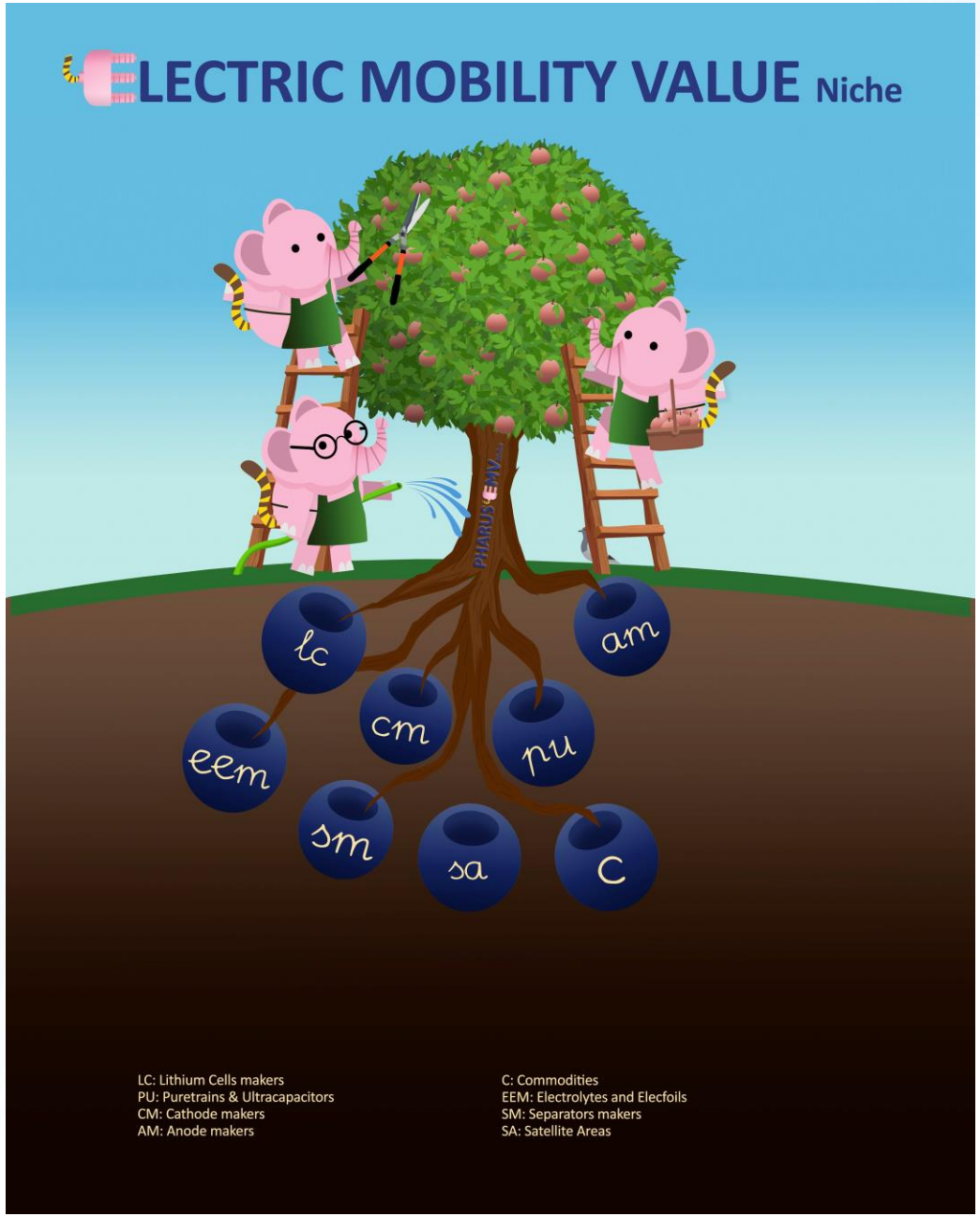
Separators makers

	Main valuation metrics
Sumitomo Chemical	P/E 03/25E: 7,4x; P/BV Tangible: 1,3x; no financial leverage

Source: Reuters, NicheAM May ‘23

Pharus Electric Mobility Value Niche	
Management company	Pharus Sicav
ISIN	Class A – all type of investor – LU1867072149 Classe A-GBP - all type of investor – LU2526377374 Class B – reserved to Institutional & Professional Investor – LU1867072222 Class Q – listed class * – LU1867072495
Management Fee	Class A - 2,00% Classe A-GBP – 0,25% Class B - 0,75% Class Q - 0,75%
Performance Fee (annual)	20% with HWM 10% with HWM for Class A-GBP
Benchmark	-
Dividends	Accumulation
Minimum initial subscription amount during the initial subscription period	Euro 1,000 for Class A GBP 25,000 for Class A-GBP Euro 10,000 for Class B
Minimum holding amount	Euro 1,000 for Class A None per Class A-GBP Euro 50,000 for Class B

** The Q Share Class can only be invested by Intermediaries via the ATFund market of the Italian Stock Exchange*


ELECTRIC MOBILITY VALUE Niche
lc
am
cm
pu
eem
sm
sa
C
LC: Lithium Cells makers
PU: Puretrains & Ultracapacitors
CM: Cathode makers
AM: Anode makers
C: Commodities
EEM: Electrolytes and Elecfoils
SM: Separators makers
SA: Satellite Areas

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