

BEV's – Has the 2021 weakness in values stabilised...

...and what are the future drivers we should consider

Andy Shields

Business Unit Director INDICATA

Agenda

About INDICATA

What is happening with BEV sales and RVs?

Market Days Supply – Tracking Supply and Demand

Why is Supply and Demand changing?

Summary

Agenda

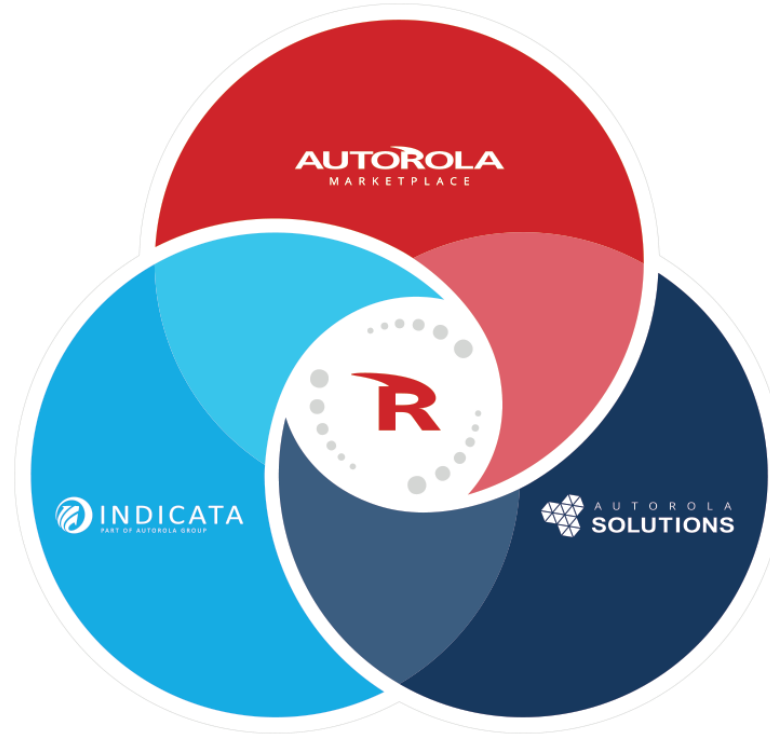
About INDICATA

What is happening with BEV sales and RVs?

Market Days Supply – Tracking Supply and Demand

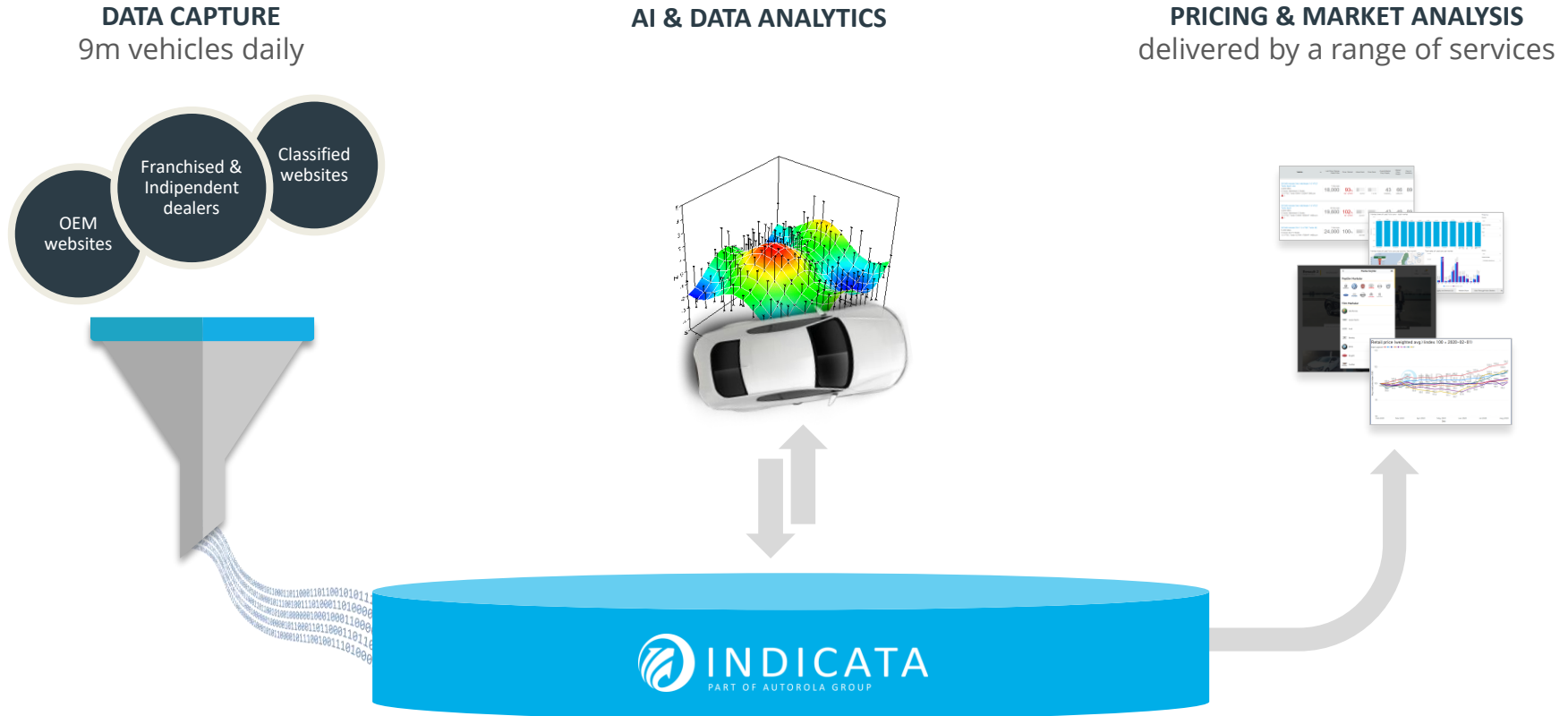
Why is Supply and Demand changing?

Summary



AUTOROLA

INDICATA PRICING AND MARKET ANALYSIS



Agenda

About INDICATA

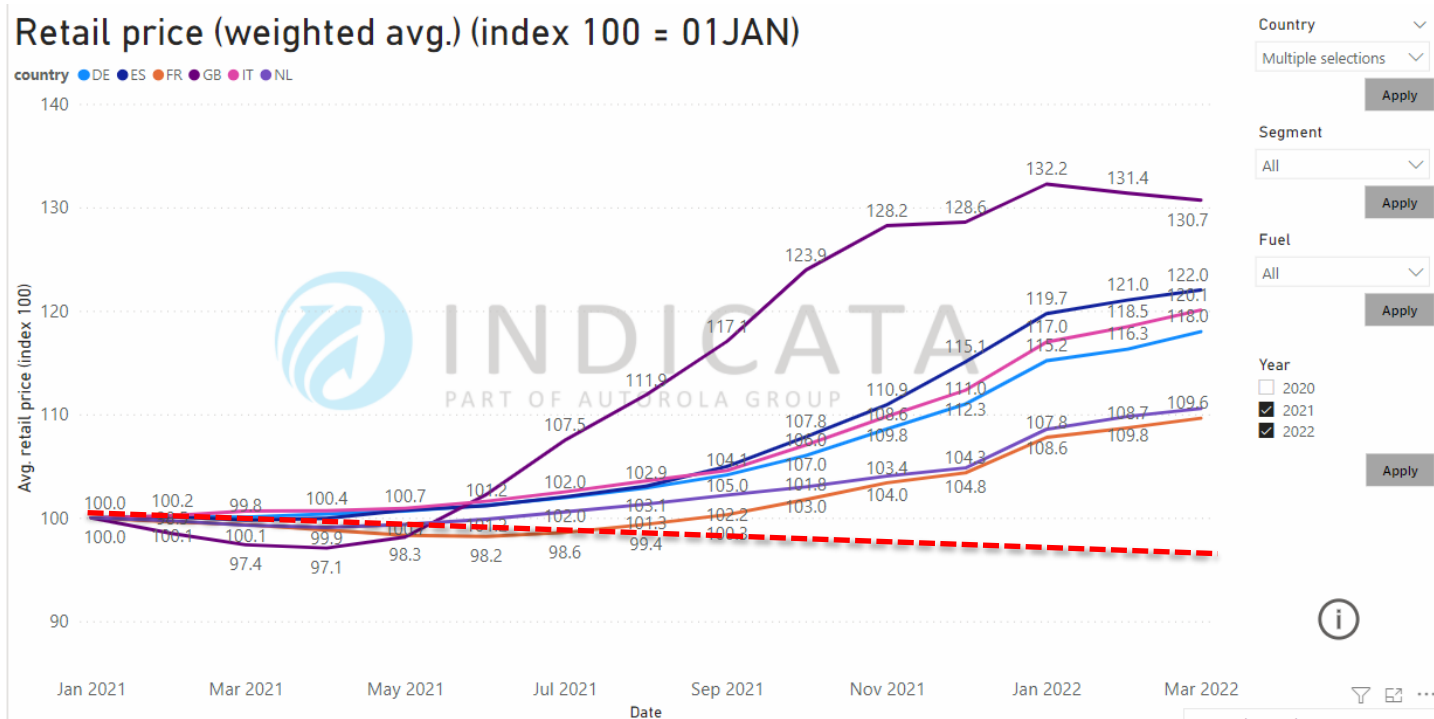
What is happening with BEV sales and RVs?

Market Days Supply – Tracking Supply and Demand

Why is Supply and Demand Changing?

Summary

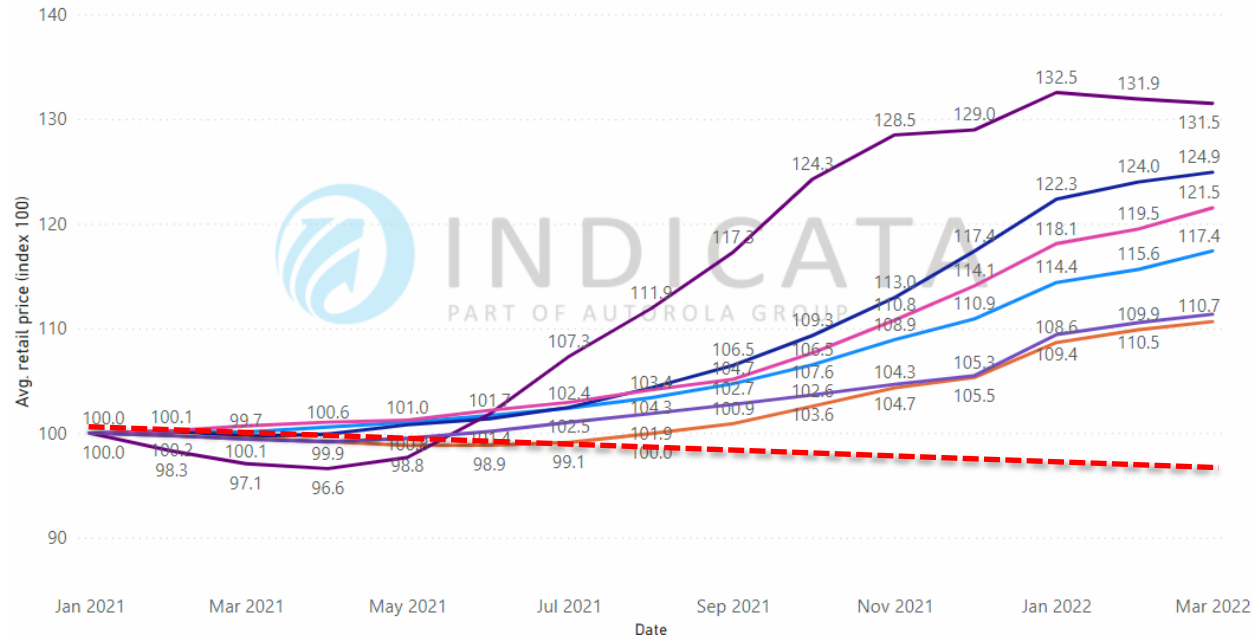
PRICES ACROSS EUROPE ARE RISING – ALL FUEL TYPES



PRICES ACROSS EUROPE ARE RISING – PETROL

Retail price (weighted avg.) (index 100 = 01JAN)

country ● DE ● ES ● FR ● GB ● IT ● NL



Country

Segment

Fuel

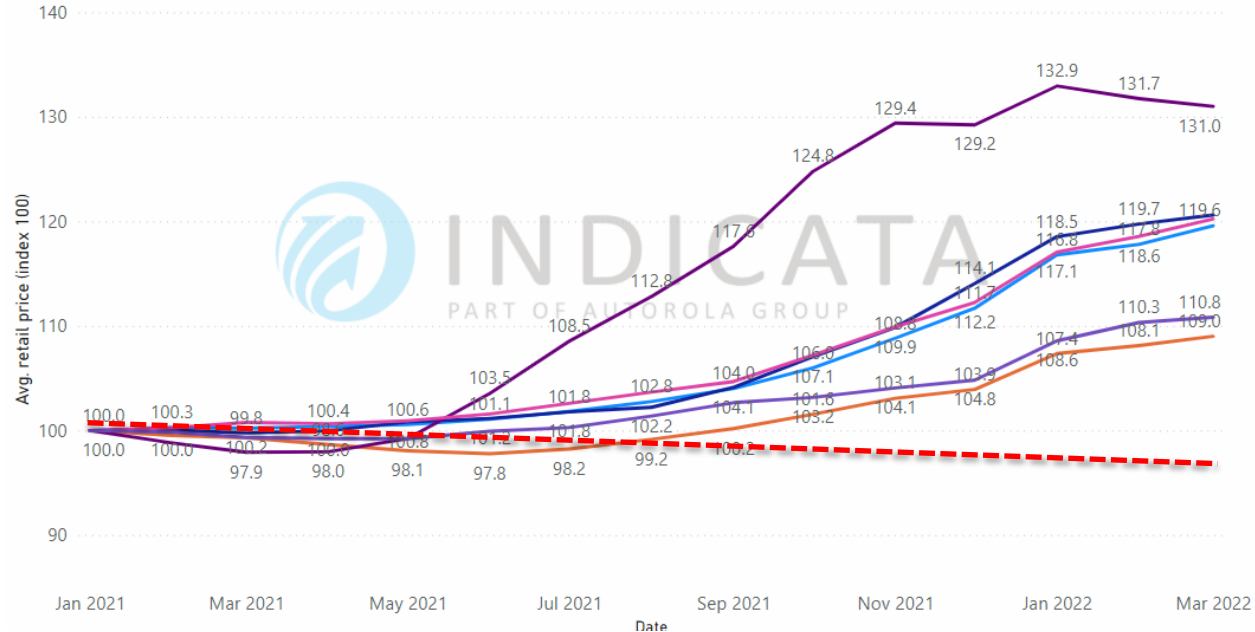
Year ☐ 2020 ☒ 2021 ☒ 2022



PRICES ACROSS EUROPE ARE RISING – DIESEL

Retail price (weighted avg.) (index 100 = 01JAN)

country ● DE ● ES ● FR ● GB ● IT ● NL



Country
Multiple selections
Apply

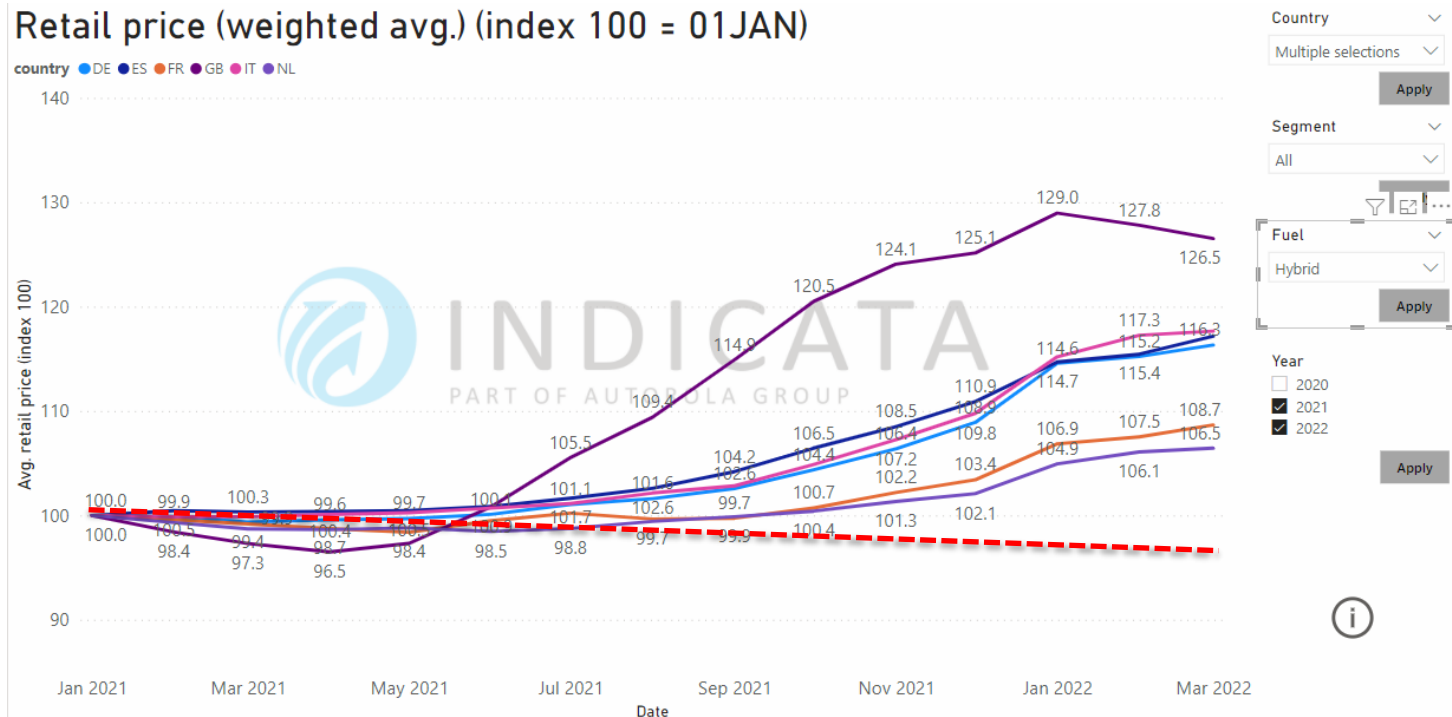
Segment
All
Apply

Fuel
Diesel
Apply

Year
☐ 2020
☒ 2021
☒ 2022
Apply



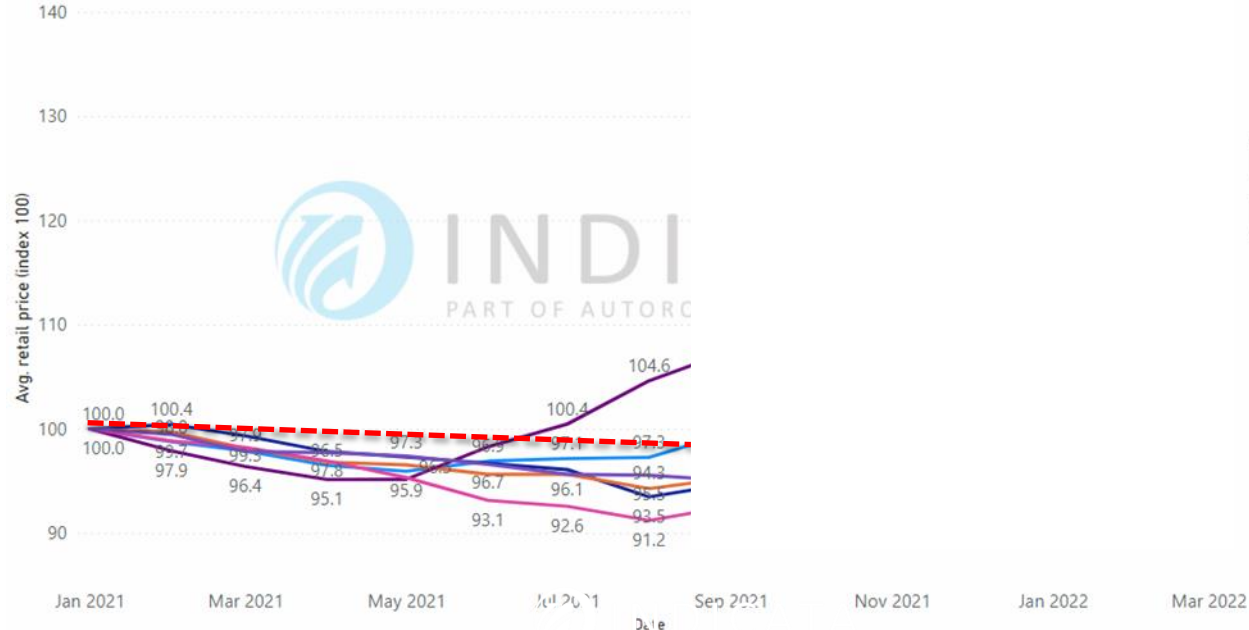
PRICES ACROSS EUROPE ARE RISING – HYBRID



BUT THE PICTURE IS DIFFERENT WITH BEV...Initially underperforming

Retail price (weighted avg.) (index 100 = 01JAN)

country ● DE ● ES ● FR ● GB ● IT ● NL



Country
Multiple selections
Apply

Segment
All
Apply

Fuel
Electric
Apply

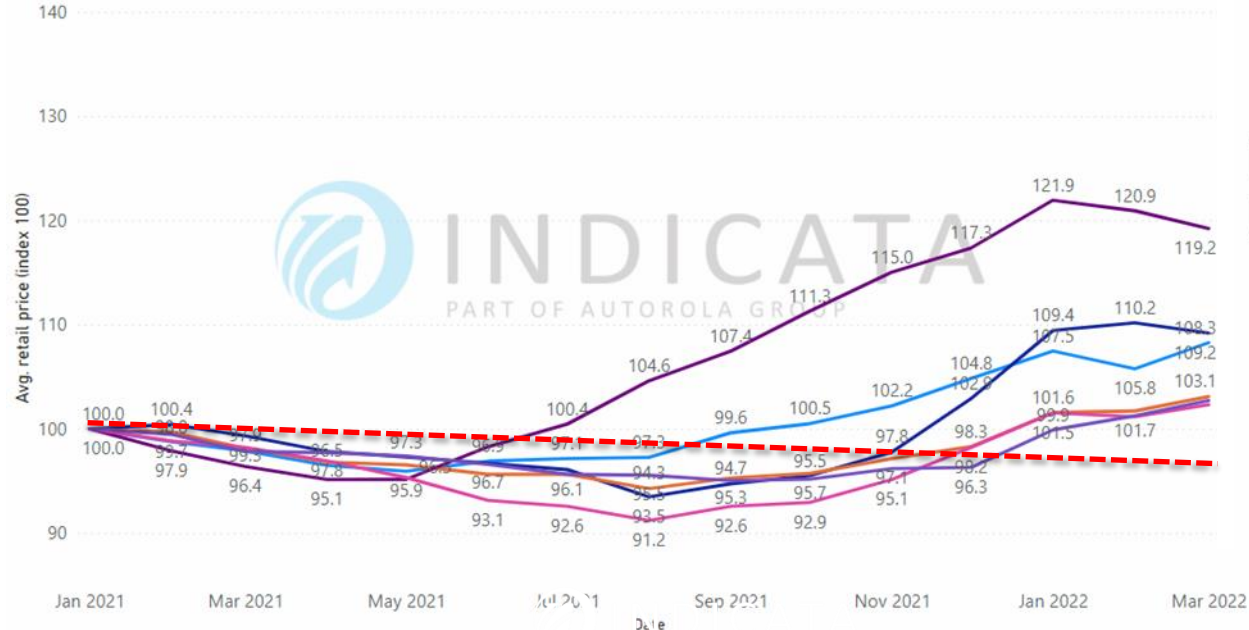
Year
☐ 2020
☒ 2021
☒ 2022
Apply



BUT THE PICTURE IS DIFFERENT WITH BEV...Now with signs of recovery

Retail price (weighted avg.) (index 100 = 01JAN)

country ● DE ● ES ● FR ● GB ● IT ● NL



Country
Multiple selections
Apply

Segment
All
Apply

Fuel
Electric
Apply

Year
☐ 2020
☒ 2021
☒ 2022
Apply



Agenda

About INDICATA

What is happening with BEV sales and RVs?

Market Days Supply – Tracking Supply and Demand

Why is Supply and Demand changing?

Summary

THE REASON CAN BE FOUND IN MARKET DAYS SUPPLY

- MDS measures the “marketability” or attractiveness of a vehicle
- Volume growth alone does not measure demand!
- **The key is understanding the supply and demand relationship**

WHAT IS MARKET DAYS SUPPLY?



How many cars in the market (8)

VS.



=



How many sold in last 45 days (8)

WHAT IS MARKET DAYS SUPPLY?



How many cars in the market (8)

VS.



=



How many sold in last 45 days (4)

90
MDS

WHAT IS MARKET DAYS SUPPLY?



How many cars in the market (8)

VS.

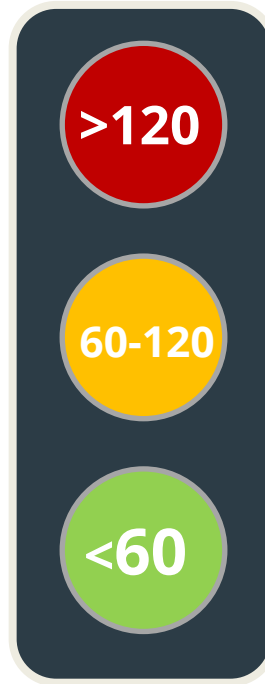


=

180
MDS

How many sold in last 45 days (2)

WHAT IS MARKET DAYS SUPPLY?



>120

SLOW MOVING STOCK

Ageing risk – **AVOID!**

60-120

AVERAGE STOCK

May cause issues

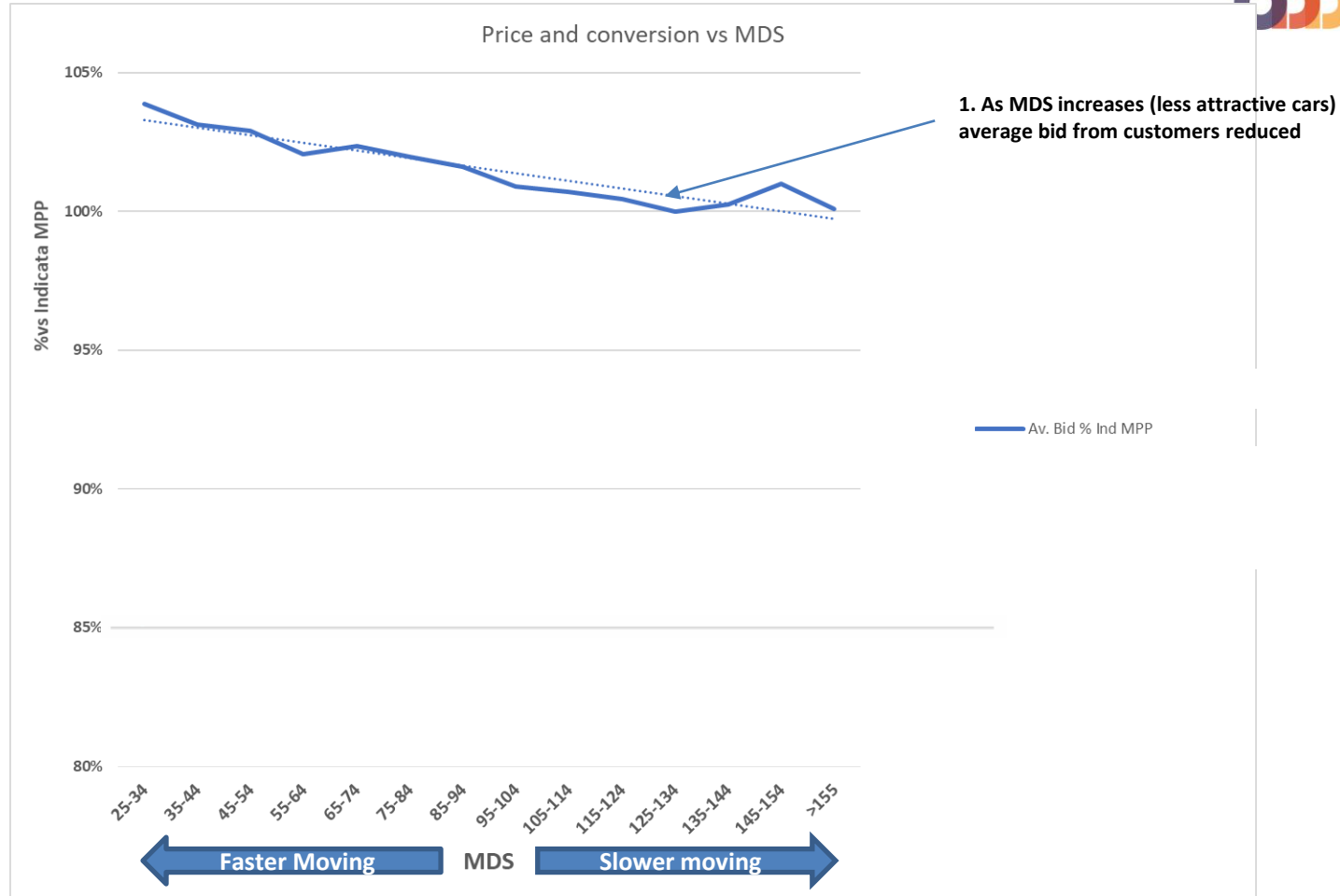
<60

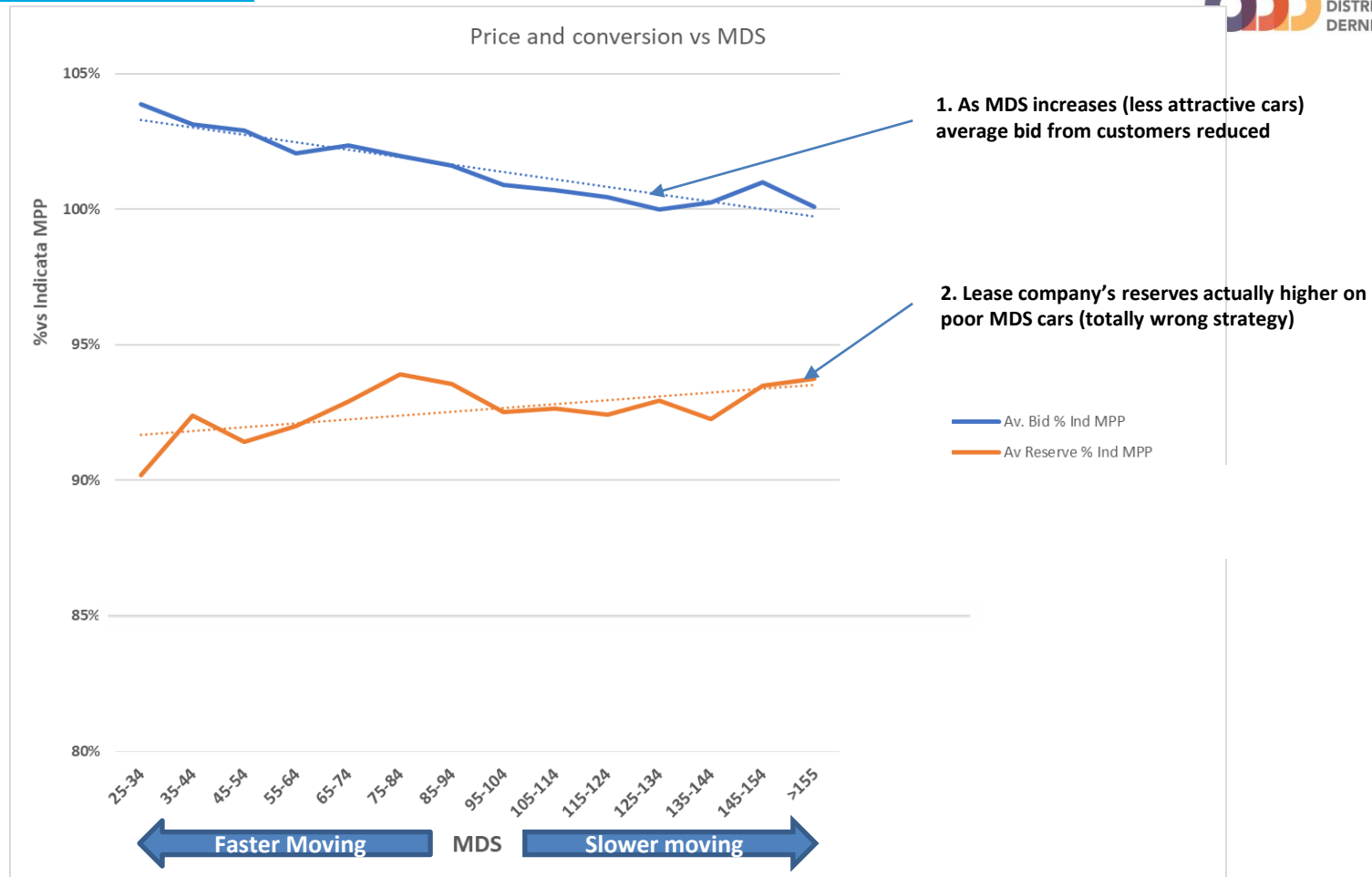
FAST MOVING STOCK

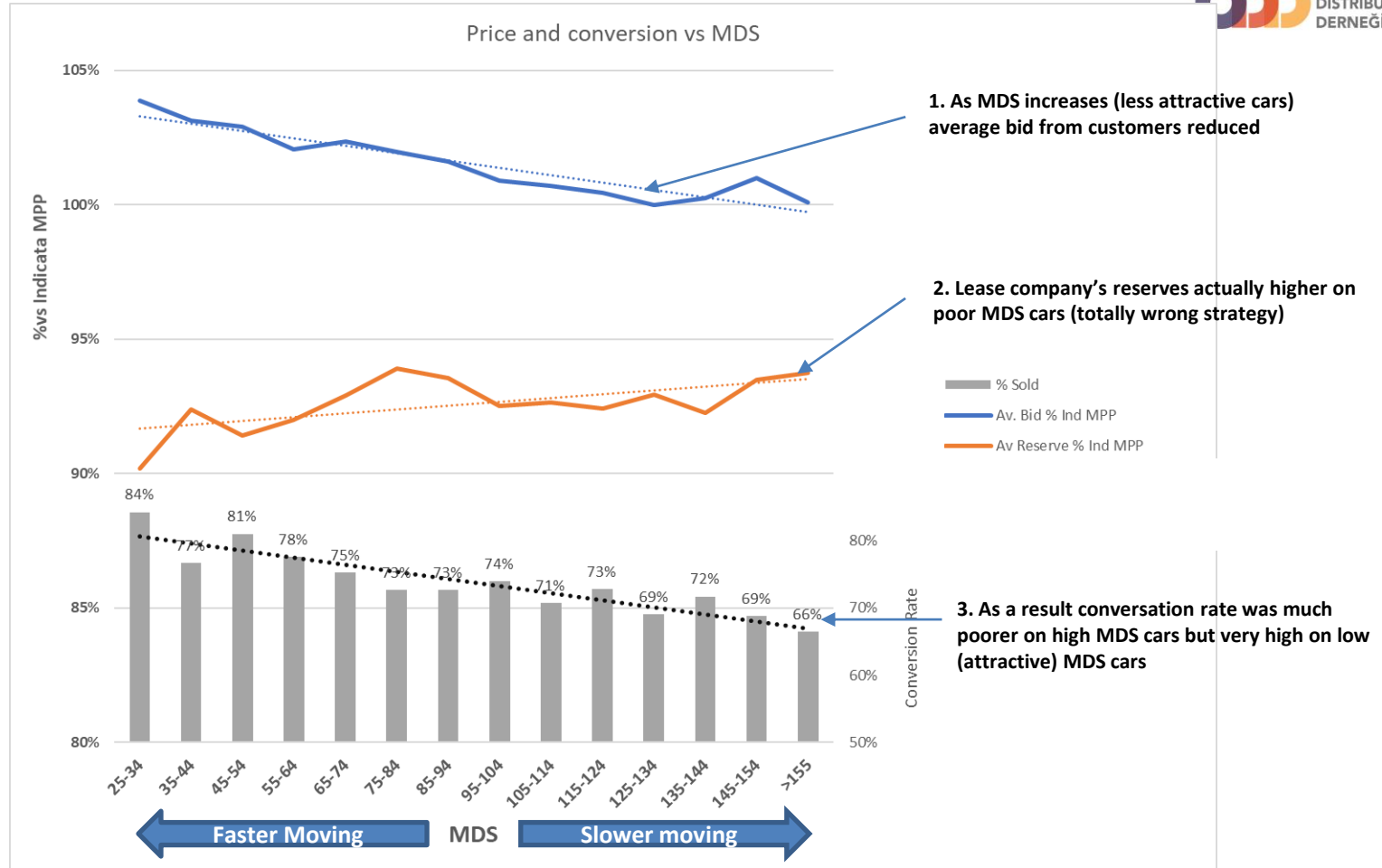
Good profits / high turn – **DO!**

CASE STUDY – Remarketing and MDS

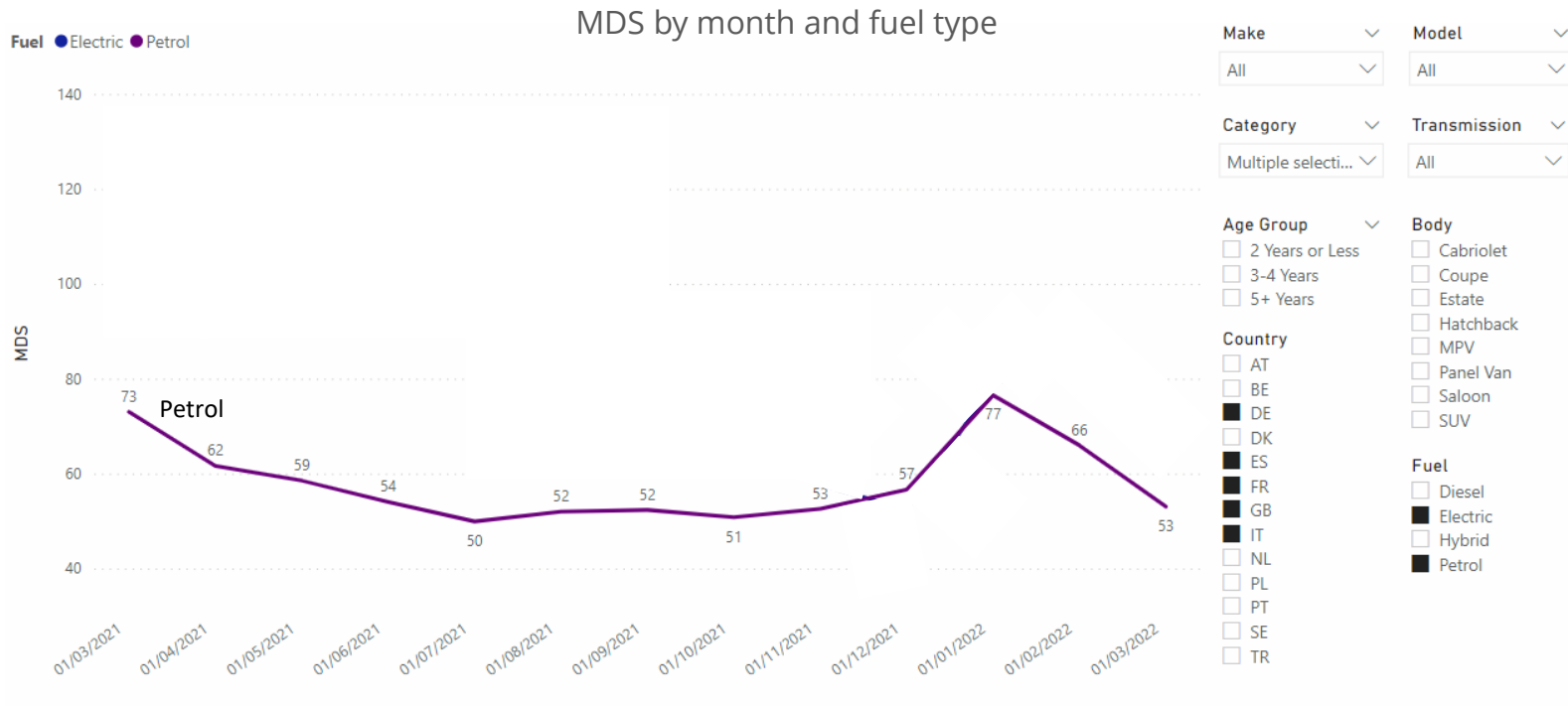
- Germany Leasing Company
- Assessment of correlation of auction conversion vs MDS
- Impact of reserve positioning



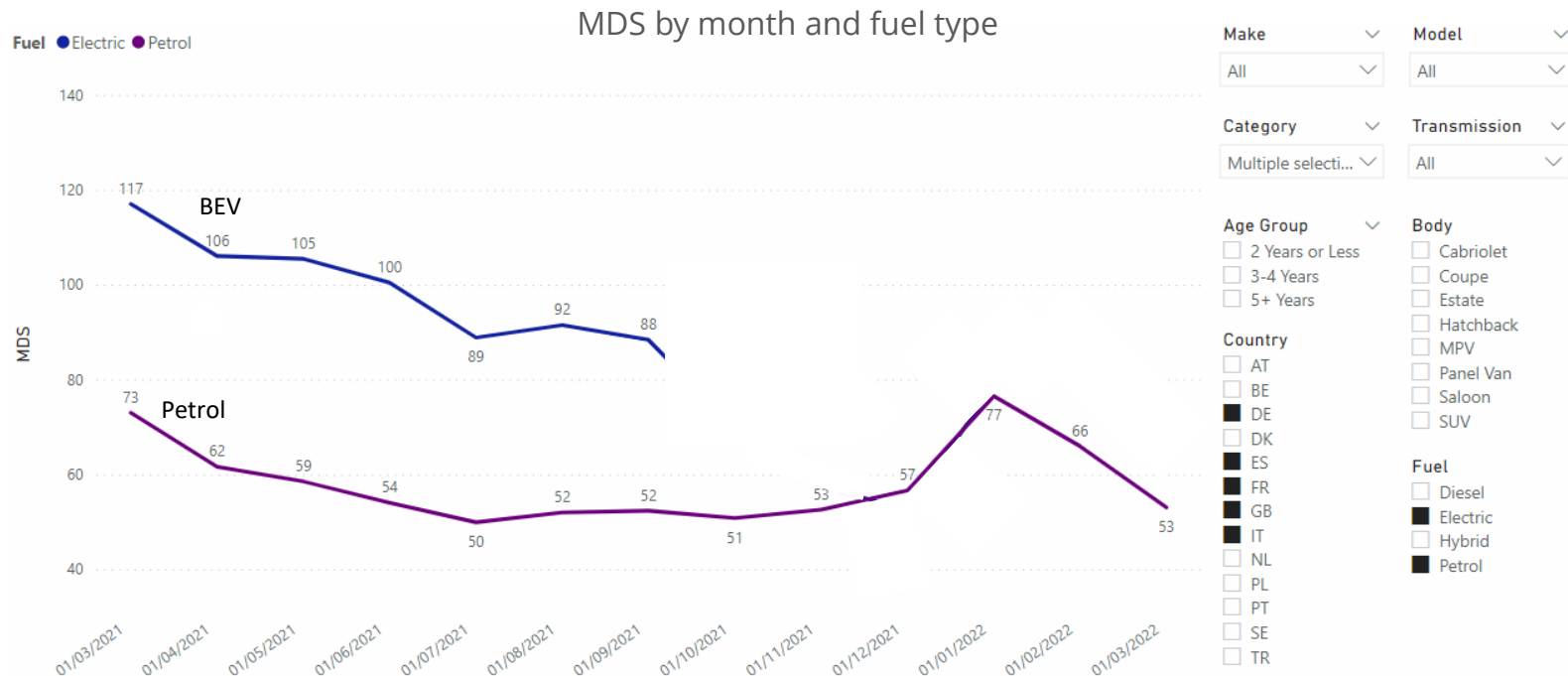




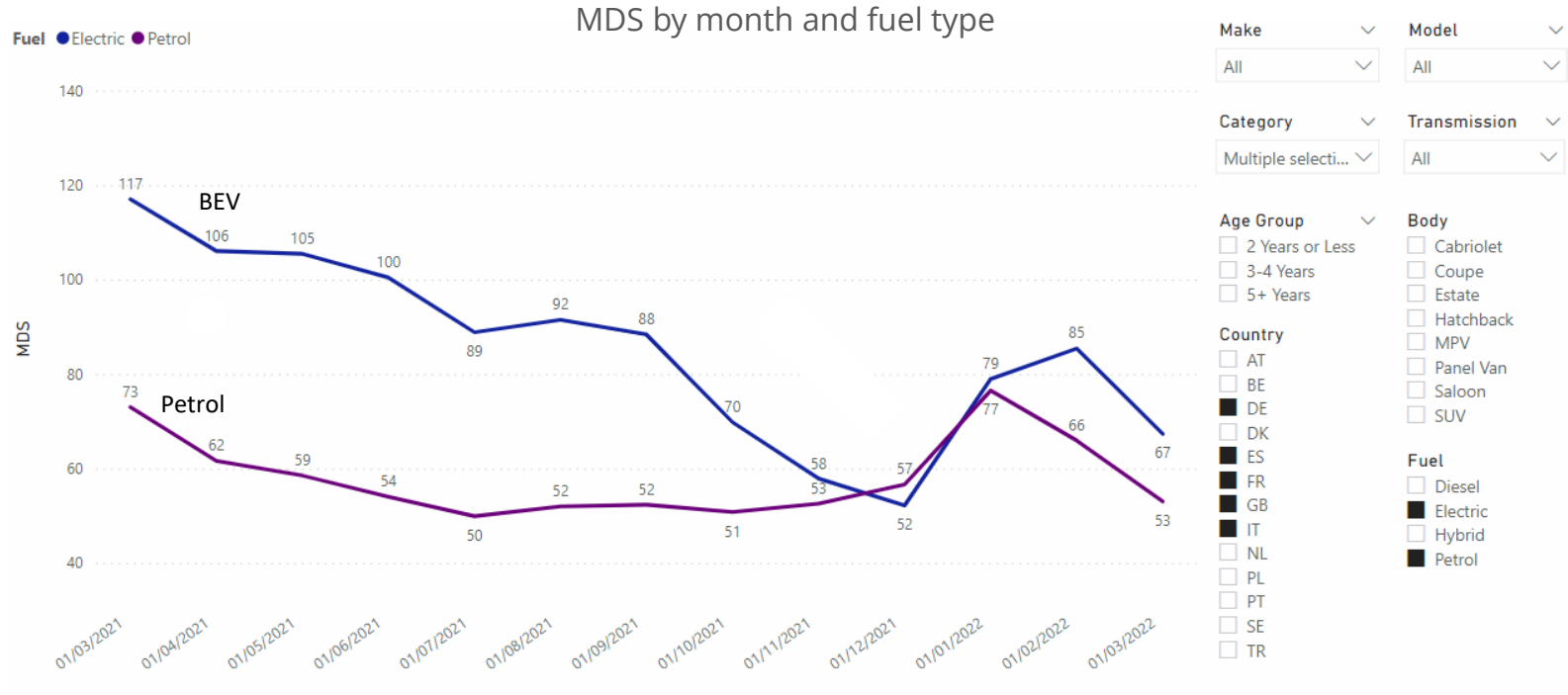
PETROL MDS IS LOW – ILLUSTRATING THE SHORTAGE OF VEHICLES



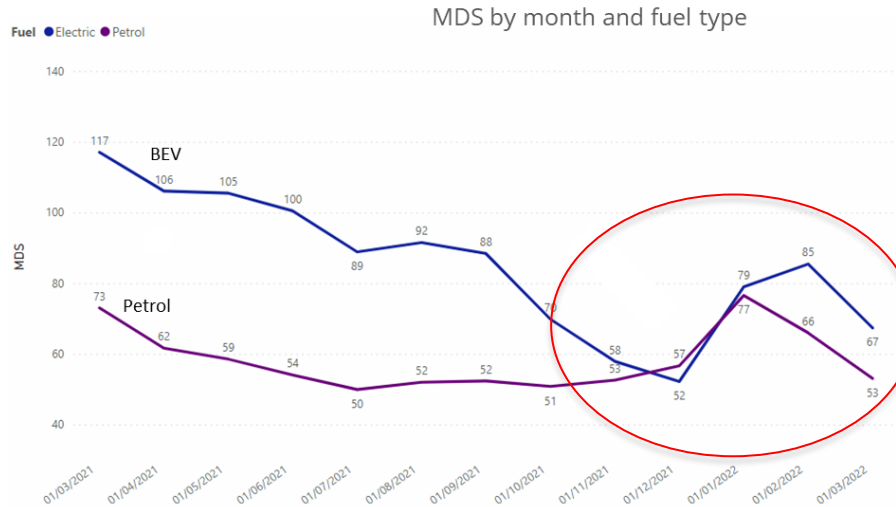
BEV's WERE IN OVERSUPPLY – HENCE REDUCING PRICES



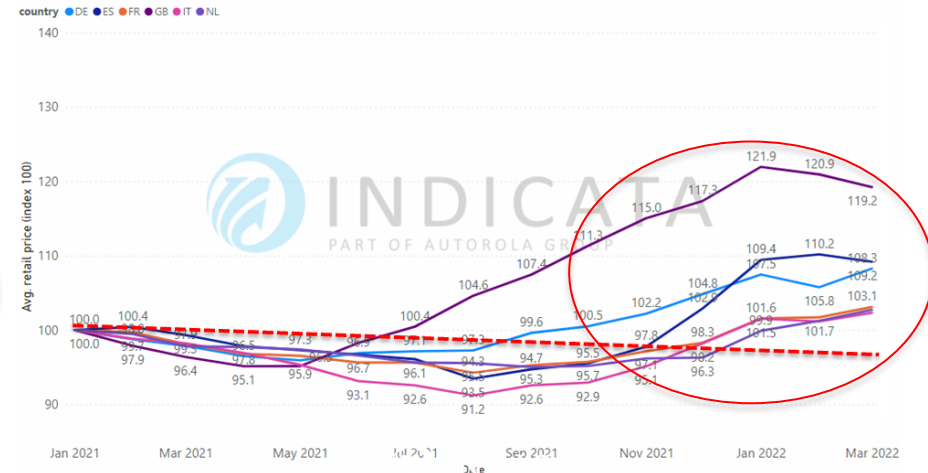
BEV SUPPLY / DEMAND RATIO HAS RAPIDLY CORRECTED



THIS CORRECTION IN SUPPLY / DEMAND IS DRIVING BEV PRICE RECOVERY



Retail price (weighted avg.) (index 100 = 01JAN)



Agenda

About INDICATA

What is happening with BEV sales and RVs?

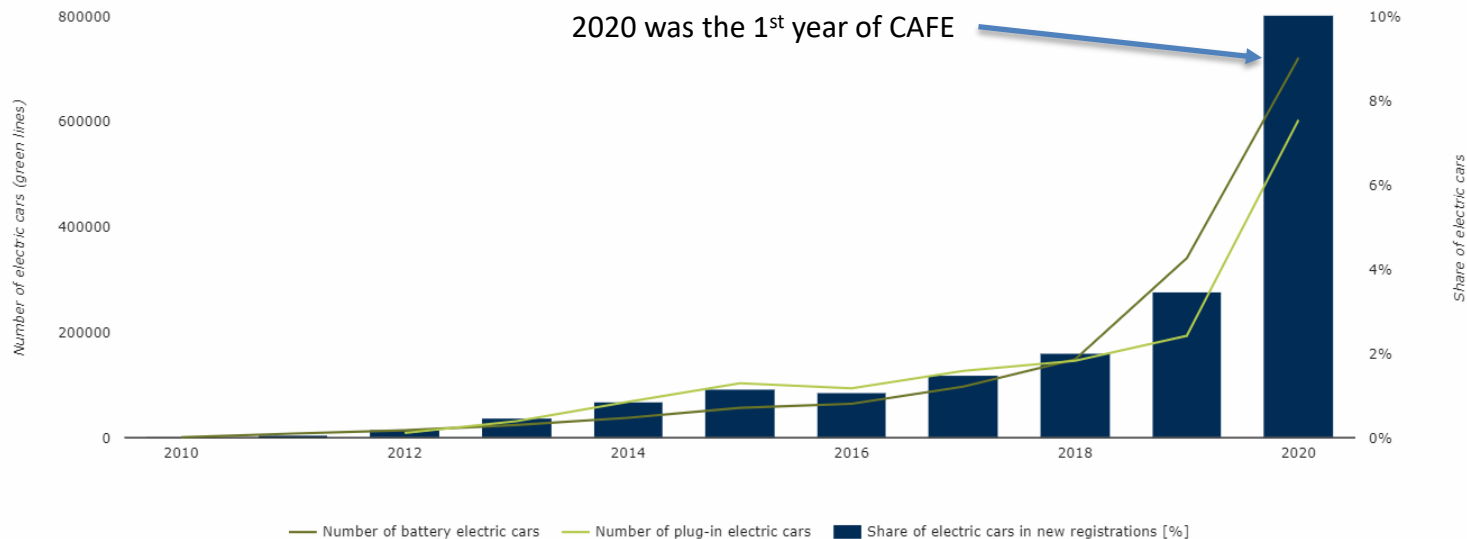
Market Days Supply – Tracking Supply and Demand

Why is Supply and Demand changing?

Summary

2020 SAW A MASSIVE JUMP IN NEW ELECTRIC VEHICLE SALES

Figure 1. Electric cars registered in the EU-27, Iceland, Norway and the United Kingdom

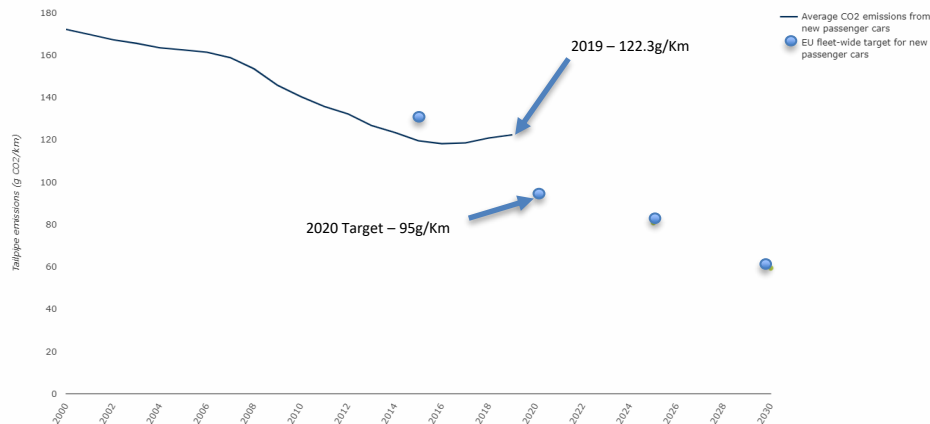


HOW DOES CAFE WORK – 2020-2025

Overall Rules

- OEM's need to get overall CO2 emission to 95g/Km (NEDC)
- Individual targets (can be pooled)
- Penalty of €95 for every g/Km over own target
- Thus an OEM at 110g/Km would be 15g/Km over target
- €1400 penalty per car registered
- An OEM with 1m registrations would have €1.4bn fine

Figure 1. Average carbon dioxide emissions from new passenger cars



The OEM's had a massive task to avoid extreme penalties in 2020 given 2019 CO₂ levels

HOW DOES CAFE WORK – 2020-2025

Overall Rules

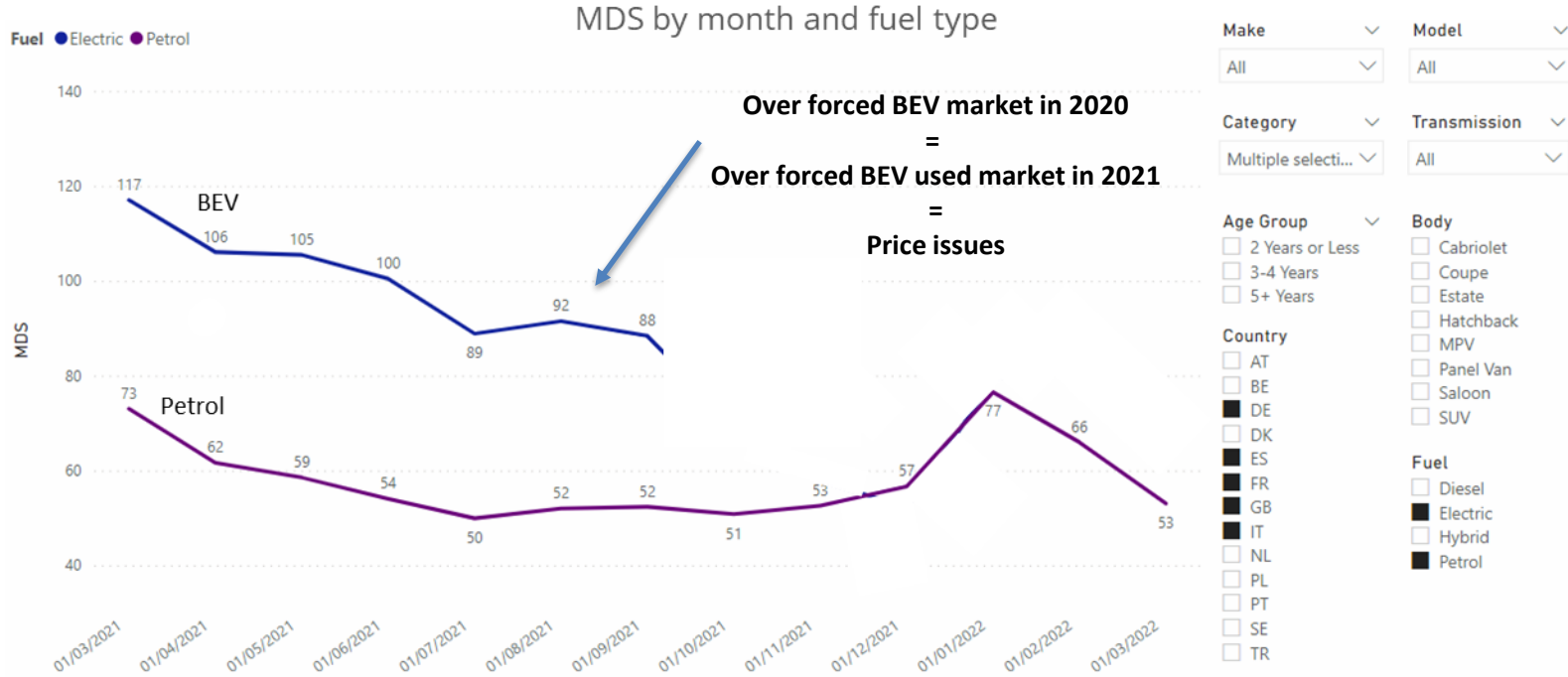
- OEM's need to get overall CO2 emission to 95g/Km (NEDC)
- Individual targets (can be pooled)
- Penalty of €95 for every g/Km over own target
- Thus an OEM at 110g/Km would be 15g/Km over target
- €1400 penalty per car registers
- An OEM with 1m registrations would have €1.4bn fine

Transition support – “Super Credits”

- 2020 Every <50g/Km counts double
 - BEV's have twice the 0g/Km benefit
- 2020 only 95% of least polluting cars count
 - Every extra 0g/Km BEV removes a 350g/Km V8 M5
- Each BEV registered could reduce fines by €20-€30K

Net effect – OEM's had massive incentive to force market with BEV and ZLEV

Many of these cars were on short cycle



So, what is happening in now?

CAFE issues having less effect

- The ZLEV “Super Credits” have less and less impact
 - 2020 - ZLEV count 2x
 - 2021 - ZLEV count 1.67x
 - 2022 - ZLEV count 1.33x
- The 95% best emissions rule only for 2020
 - A new BEV does not replace a high emission car from the count
- “Super Credits” usage had a cap
 - Most OEM's used their 2020-2022 allowance in before end 2021

Super Credits have less impact – so less benefit in forcing the market

OEM compliance with CAFÉ no longer an issue

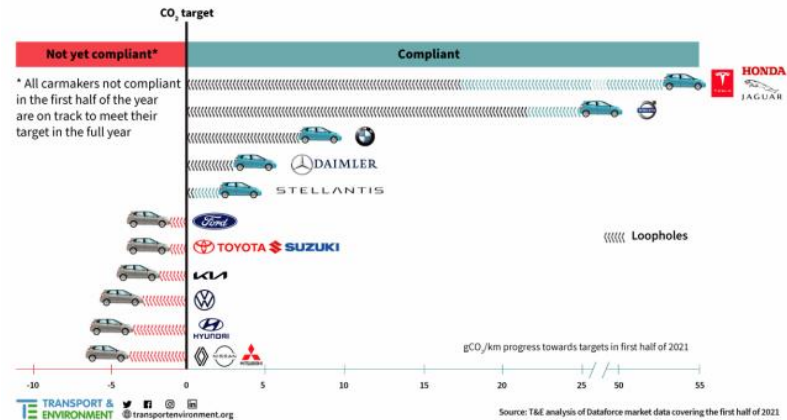
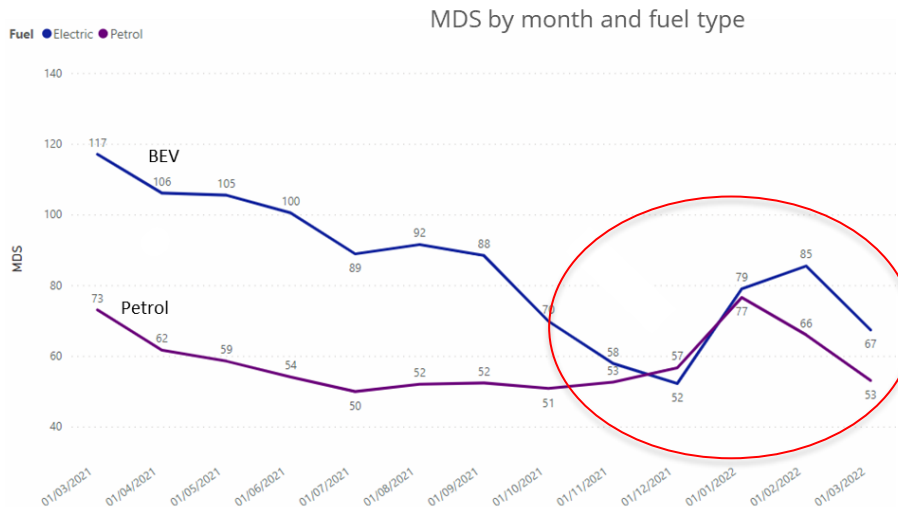


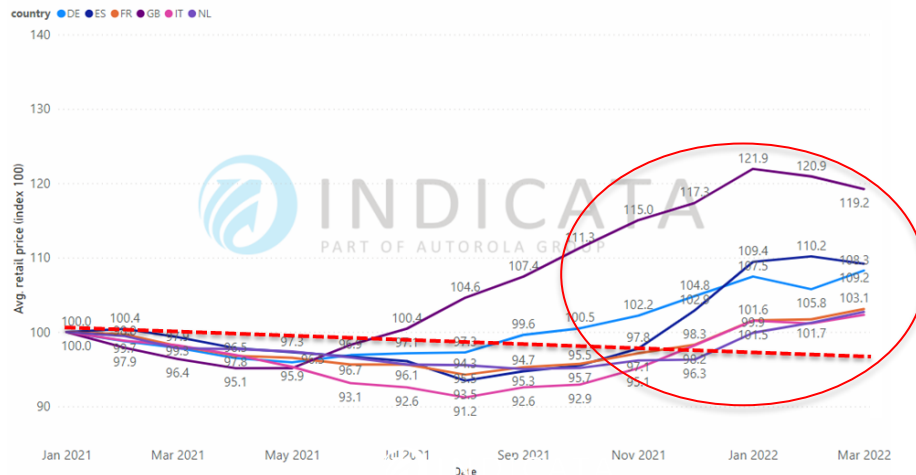
Figure 20 - OEM's compliance gap in the first half of 2021

Most OEM's hit target in 2021 (due to technical loopholes) and will continue across to 2030 despite new targets in 2025

THIS CORRECTION IN SUPPLY / DEMAND IS DRIVING BEV PRICE RECOVERY



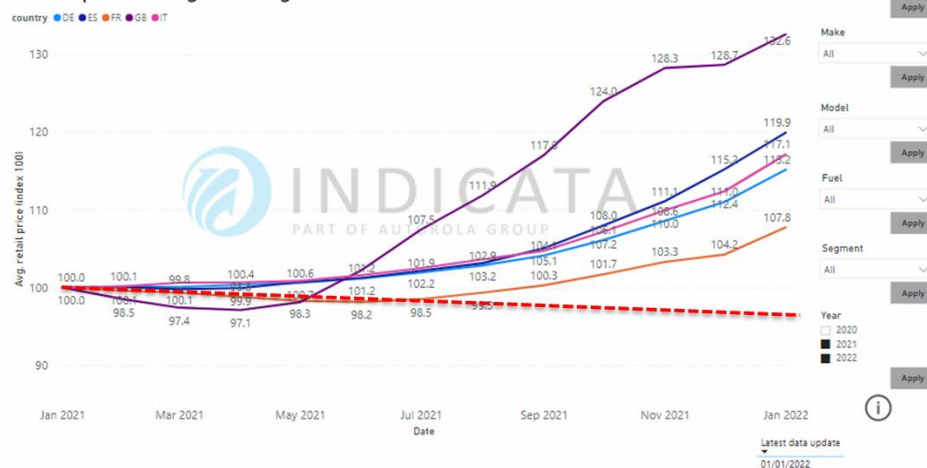
Retail price (weighted avg.) (index 100 = 01JAN)



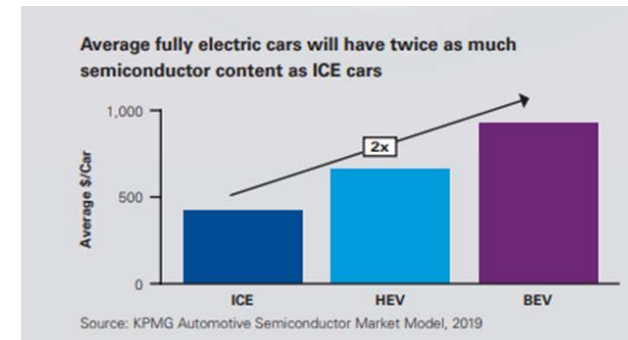
But if the chip shortage is the biggest driver – how do we see that progressing

THE CHIP SHORTAGE IS DRIVING PRICE RISES

Retail price (weighted avg.) (index 100 = 01JAN)



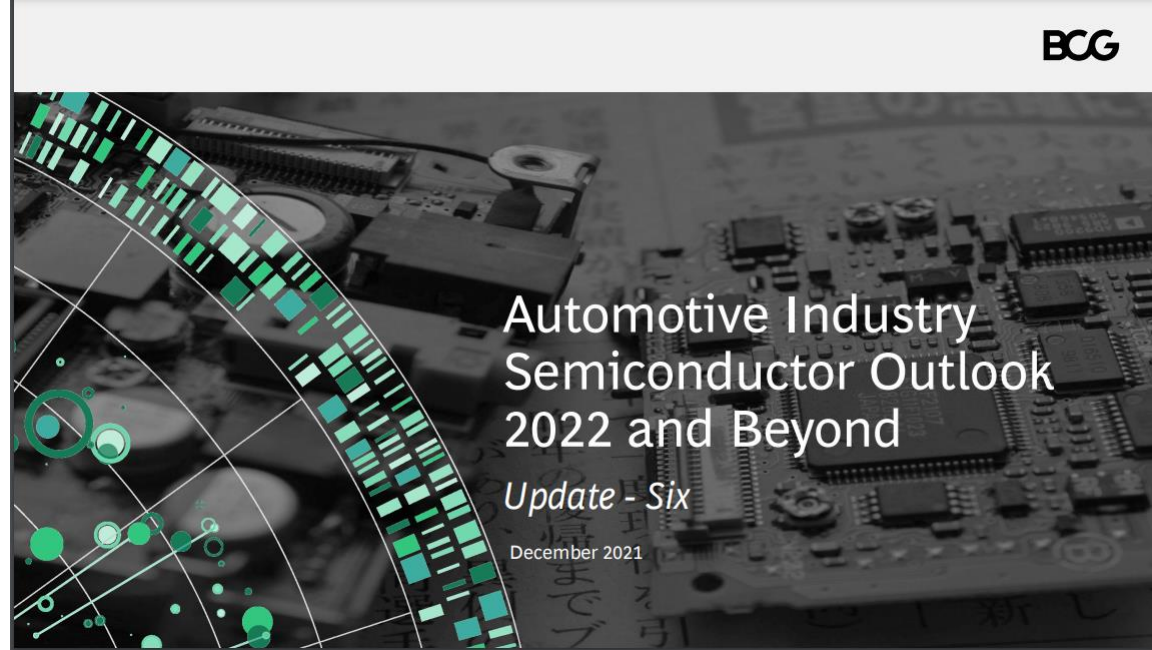
BEV's are particularly demanding in Chips



A sustained shortage of chips and reduced CAFE pressure - will OEM's then re-focus back to ICE?

And how long will chip issues last?

PREDICTING THE CHIP SHORTAGE – Boston Consulting Group



PREDICTING THE CHIP SHORTAGE

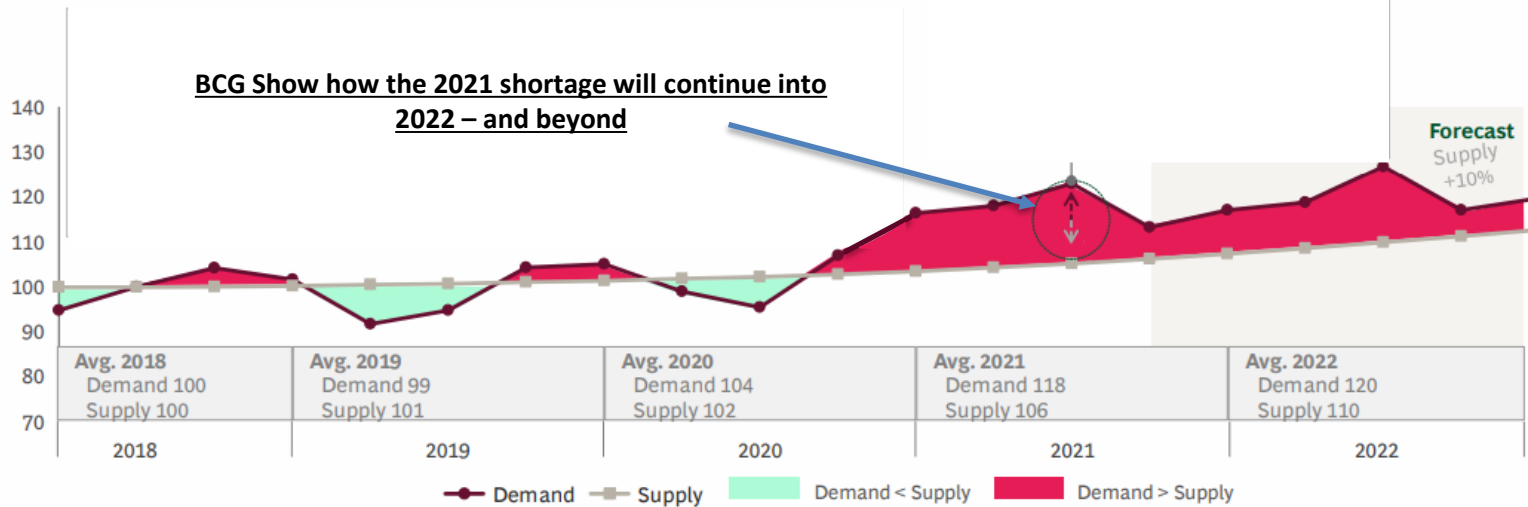
2018/2020: “normal” market cycle

2020/2021: demand shock

2022: continuing
tense situation

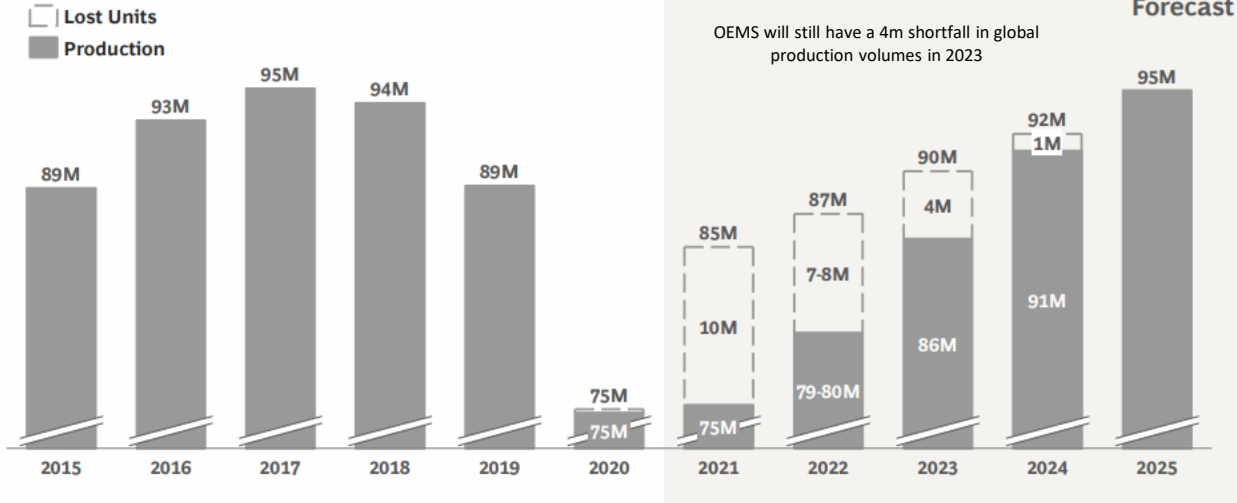
Demand¹ & Supply² for semiconductors ex-Memory

Ø Q1-Q4 2018 = 100



BCG see the balance only returning in 2024!

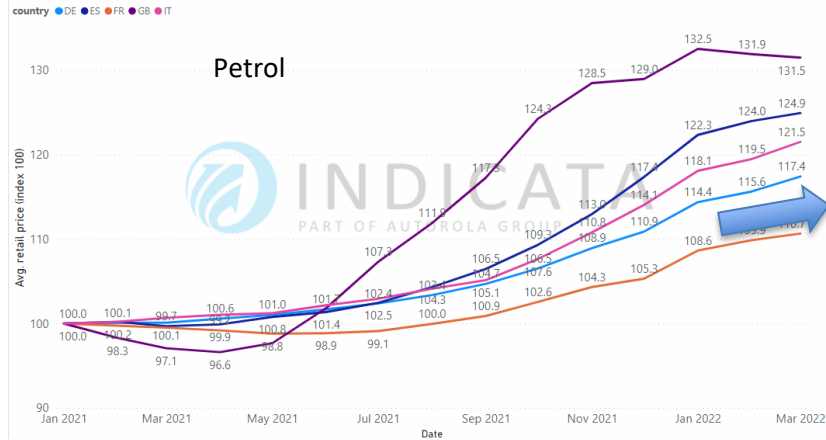
Global annual light vehicle production (million units)



This has 2 key impacts for residual values...

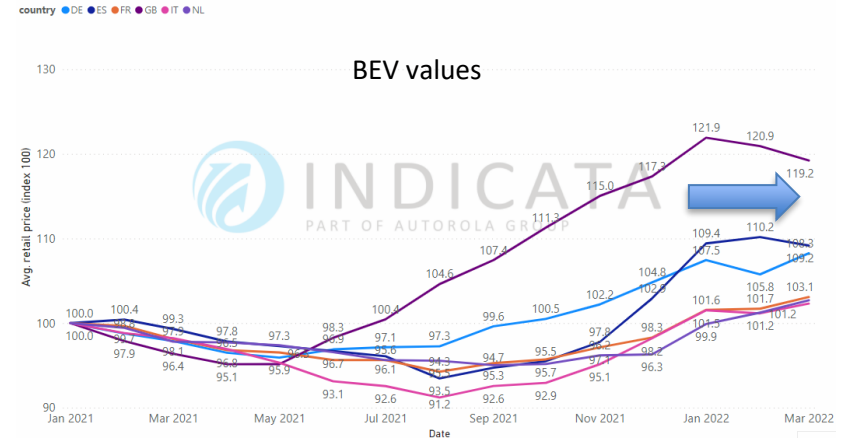
MARKET STRENGTH LOOKS TO CONTINUE

Retail price (weighted avg.) (index 100 = 01JAN)



Unlikely to be a radical reversal in overall RV's in the near term – at worst “stabilisation”

Retail price (weighted avg.) (index 100 = 01JAN)



But are undelying pricing issues with BEV's going to dominate or will chip shortage sustain recovery?

Agenda

About INDICATA

What is happening with BEV sales and RVs?

Market Days Supply – Tracking Supply and Demand

Why is Supply and Demand changing?

Summary

