The future of EV battery manufacturing

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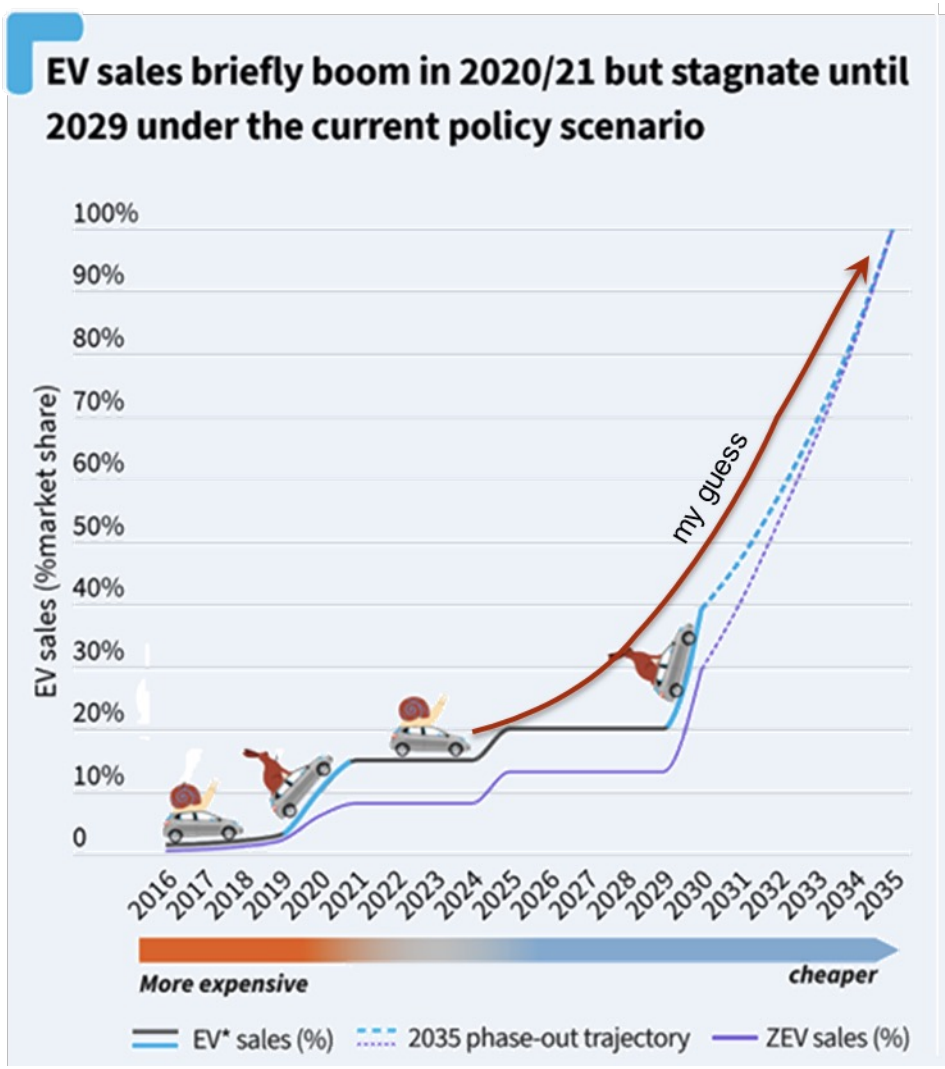
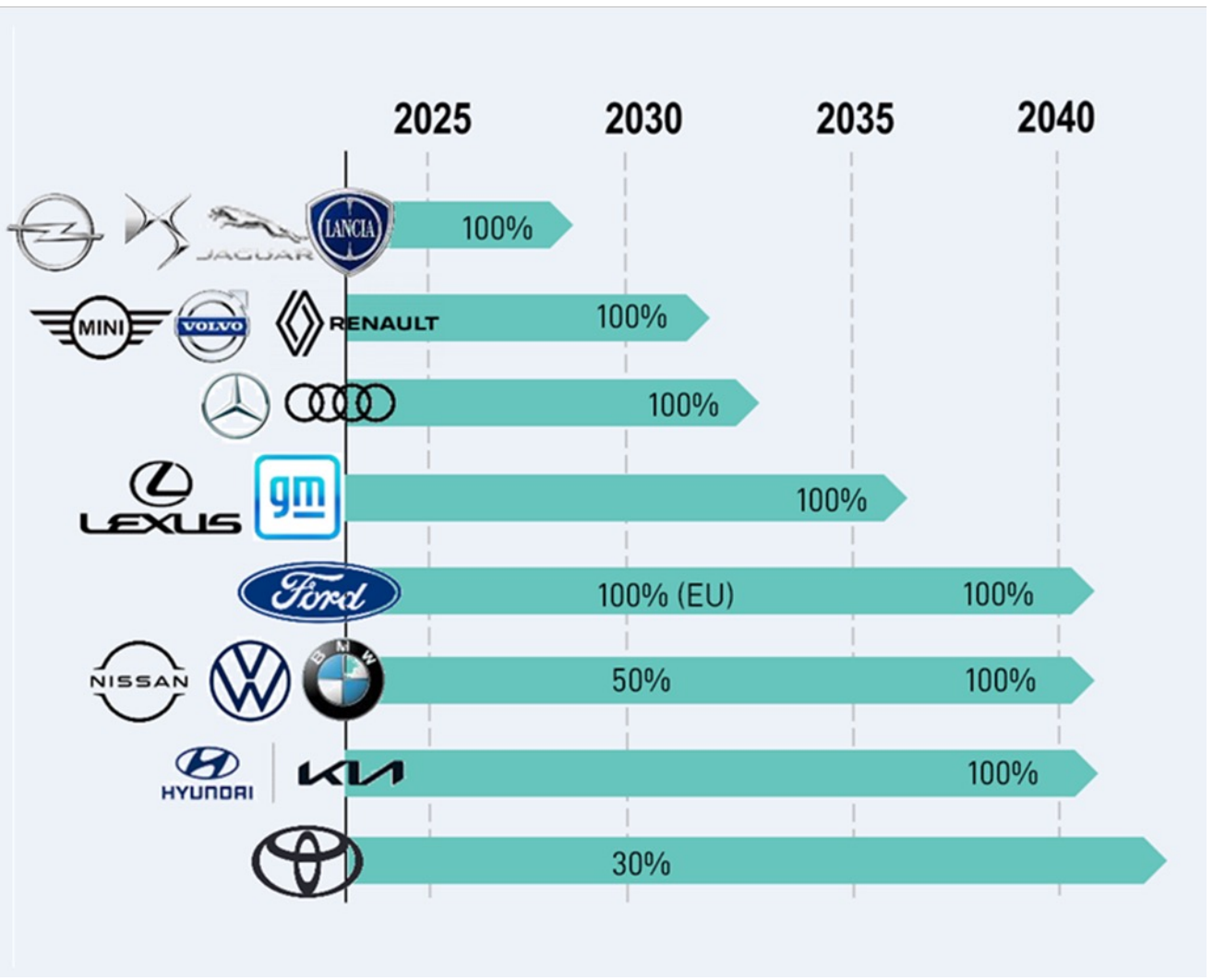
All OEMs committed to become 100% BEV.





Cost parity ICE vs BEV is NOT THERE YET.

208 Style PureTech
75kW petrol, manual
21,810 EUR

e208 Style electric
50kWh, 100 kW
33,120 EUR

KIA Niro hybrid active
100kW petrol, manual
31,190 EUR

KIA Niro electric active
64kWh, 100 kW
39,690 EUR

Twingo equilibre
65kW petrol, manual
15,600 EUR

Twingo equilibre electric
22kWh, 60 kW
24,450 EUR

Key Facts

› ePWT vs ICE PWT cost still significant
› **Retail price gap between 8k to 11k EUR**
› Without gov't incentives and an ePWT massive cost reduction plan it will be difficult to achieve 2030 M/S expectations

* Retail prices from OEM website in France as of April 20th 2022

The supply chain under heavy PRESSURE.

	Weight in a NMC811 100kWh battery?	Cost March 2021?	Cost May 2022?
	Lithium 67 kg	12 USD/kg 804 USD	65 USD/kg 4355 USD
	Nickel 82 kg	16.5 USD/kg 1353 USD	27.4 USD/kg 2247 USD
	Cobalt 7 kg	55 USD/kg 385 USD	81 USD/kg 567 USD
	Cost per battery:	**2,542 USD**	**7,169 USD**

The demand is growing much faster than what the offer can sustain.

In the last year the cost of key materials has skyrocketed leading to a vehicle (100kWh) cost increase above 5,000 USD.

- Lithium up 542%
- Nickel up 166%
- Cobalt up 147%
- Graphite up 153%
- Iron Phosphate x8

Can we ensure electric vehicle vs ICE vehicles cost parity in the coming years?