China EV

Fragmented mkt

Will not as consolidated as

Leaders: VW, GM, Toyata

Mass mkt: VW

Luxury: Cadillac (but not Lexus)

Not so different f

18-20% penetration

40% penetration by 2025

Legacy players behind: eco-system, software

VW: 13k units (doing well)

Gov cut incentive by 2019, cut ever since

But EV penetration actually increase

Need to build ecosystem, infrastructure

Subsidize not a good strategy

Need to build good product, incentivize customer to choose ev

Product desirable (#1 driver)

Cost (#2 driver)

CATL: crushing the battery cost

NIO: 25% GM on 90k units (BOM cost much lower)

Inflation point

Smartphone on wheels

Geely, Xpeng,

S/W experience, sensor technology much better for newer EV companies

NIO similar share with German big 3 (JP OEM behind)

Capability not that impressive

Current product: just OK. Decent product

NIO Service: by far the best

Battery swapping very popular

Fast charging

Post purchase service

Sg&A line growing fast

Very good at social media marketing

Top 30 companies with $8 – 9b mktcap

Considered as premium vehicle

Full suite of Nio experience

Xpeng: mid-tier, (Like Wuling) not super expensive

3m units: 50% small battery small range cars (20-40 kwh battery); 50% TSLA, BYD, NIO, XPeng and some German Cars.

Mid-tier will be most interesting: lots of tech companies will go after (BIDU, XIaoMI)

5-6m units by the end of 2022

NIO: not complete outsource (Hefei JAC facility, not owned by Nio, but operated by NIO team)

120k - 300k capability by 2021

2022: NEO park start production in 2022 2h

Battery leasing: not running as battery as a service business (BAAS).

65% take rate:

BAAS: traction is stronger than thought. Norway 90%+

BAAS: margin ok, but cash flow intensive (growth is really good)

JV among NIO and a few big entity

$800-1K per month

25% conversion rate of test drive

Real test of success of getting into EU mkt will be in Germany, UK and Holland

Mid High end offering capacity constrained

NIO has been using MobileEye, will go in house next year. Will in source the chip in the future. Next Gen S/W may not be as great

Xpeng copy Tesla S/W. Solution better in some aspects than FSD (FSD version not as robust). Use Lidar. SW capability very good

HuaWei significant push into EV space: networking, sensor, (want to control all the smart sensor, sub-system parts)

Credit card data: Sandlewood (fast money trading)

NIO: 2022 2h ramp need to watch. If successful, 2023 volume will be very good

LFP will be a big battery enabler (lower density, but cheaper and easier to procure). Solutions to get more BEV on the market

20% cheaper than alternative

NIO will bring hybrid LFP battery

Next Gen GM 25% (5% on 20%) on 300K run rate: is conservative

ET5 high volume car (lower GM)

CATL and BYD are only LFP battery vendor

Will all go to 400v SiC (800V?)