

2017

# Trends in electric cars

Charles Gregory - November 2017

*originally*

... now looking back from September 2020



2017

# The options so far?

**Range under 130 km**  
**Price under \$60,000**



**Range over 350 km**  
**Price over \$130,000**

**CHOOSE  
ONE.**



2017

# The options so far?

**Range - 180 km**  
(REx also available)

**Price - \$80,000**



**Range – 50 km (electric only)**  
(500km+ with petrol)

**Price - \$48,000**



2017



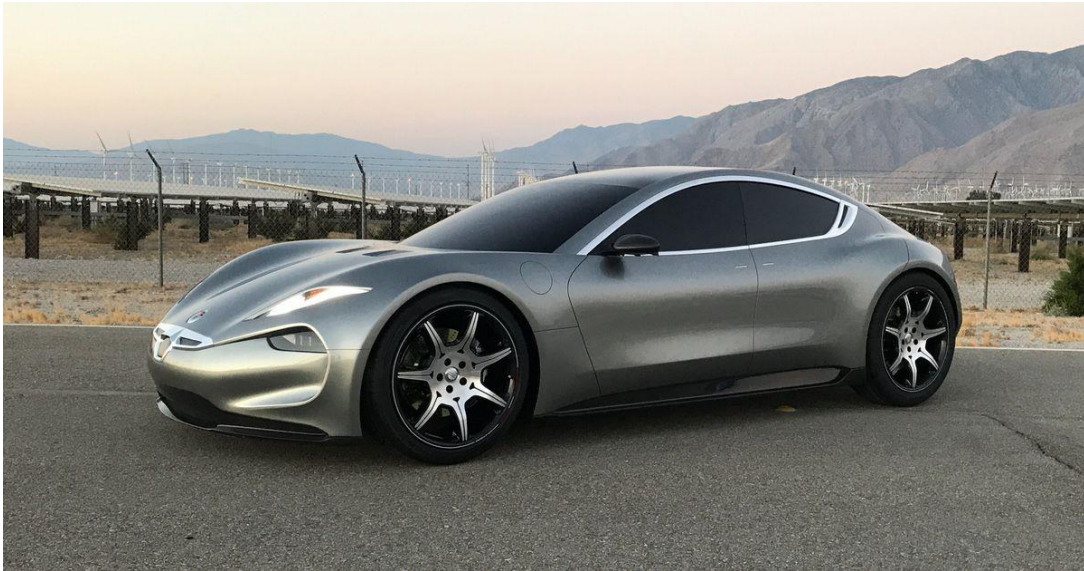
BMW i8 – BMW 330e HPEV – Ford Focus EV – Kia Soul EV – Volkswagen Golf GTE – Renault Zoe – Nissan e-NV200 – Smart ED – Toyota Prius Prime – Kia Optima PHEV – Mercedes B250E/C250E – Renault Kangoo ZE



2017

# The unobtainable...

Fisker EMotion



Rimac Concept One

# The unobtainable...

Fisker EMotion



Rimac Concept One

Lotus Evija



Tesla Roadster



2017

# The up-and-comers...

Faraday Future FF91



Lucid Air



# Lucid Air

The soon-to-be-launched **Lucid Air** electric sedan has a record-topping driving range of 832km, according to third-party testing by the EPA in the United States.

For comparison, the **Tesla Model S Long Range** is said to be able to travel 713km on a single charge.

**It looks like Lucid Air, the new startup's first and yet unreleased electric vehicle is gunning for all of Tesla's top accolades. After trumping the range of the Model S, the upcoming luxury sedan can now be seen seemingly defeating its most important rival in a drag race as well.**

- DC fast charging at up to 20 miles per minute, with a peak charging rate of over 300kW

What we can also now share with you is that the Lucid Air will be available in four options starting from \$US80,000 (although you'll have to wait until 2022 to get one) up to an eye-boggling \$US169,000.





2017

# BOLLINGER MOTORS

## B1



Bollinger Motors – based in New York  
Has received 10,000 reservations  
(US\$1000 each)

All Wheel Drive  
Converts from full cab to half cab  
60 or 100 kWh options  
(190 or 320 km range)  
~2.7 tonne towing capacity



# BOLLINGER MOTORS

## B1



Bollinger Motors – based in New York  
Has received 10,000 reservations  
(US\$1000 each)

**\$125,000 SUGGESTED RETAIL PRICE**

All Wheel Drive

Converts from full cab to half cab

60 or 100 kWh options **142 kWh**

(190 or 320 km range) **320 km**

~2.7 tonne towing capacity **2.2 tonne**



2017

# BOLLINGER MOTORS

## B1



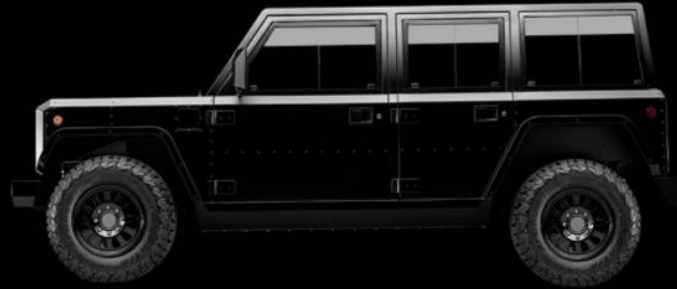
# BOLLINGER MOTORS

## CHOOSE YOUR TRUCK

### BOLLINGER B1

ALL ELECTRIC SPORT UTILITY TRUCK

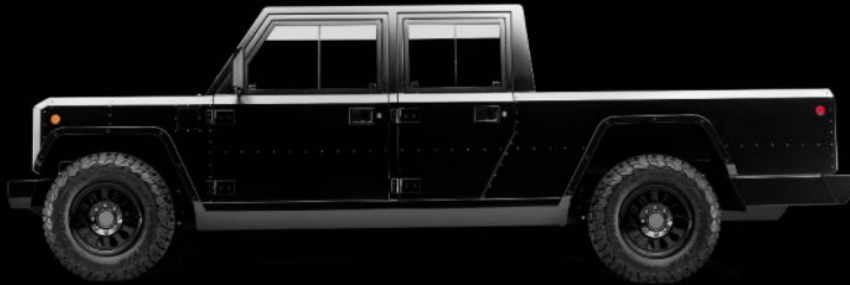
MAKE \$1000 DEPOSIT NOW



### BOLLINGER B2

ALL ELECTRIC PICKUP TRUCK

MAKE \$1000 DEPOSIT NOW



### B2 CHASSIS CAB

ALL ELECTRIC CHASSIS CAB

MAKE \$1000 DEPOSIT NOW





# RIVIAN



R1T



R1S

Established in 2009 – was in “stealth mode” until 2017  
Chasing the high-end “adventure” market  
Has received investment from Ford (\$500m), Amazon (\$700m)





2017

Sion from

SONO  MOTORS

Sono Motors – based in Germany  
Fundraised €550,000 via crowdfunding campaign as well as  
2300 pre-orders and other investment



250 km total range – and solar panels claim to be able to add 30 km per day

Low cost - €16000 (~A\$24000)  
– with option to buy battery (extra 25%) or lease

Open access to spare parts and full service and maintenance guides available – can be serviced by any vehicle mechanic



# Sion from SONO MOTORS

Sono Motors – based in Germany  
Fundraised €550,000 via crowdfunding campaign as  
2300 pre-orders and other investment

250 km total range – and solar  
panels claim to be able to add  
30 km per day

**Community Funding  
Successfully Completed:  
Sono Motors Campaign  
Reaches 53 Million Euros**

Munich, January 21, 2020 – The  
Munich-based mobility provider Sono  
Motors has successfully completed the  
extension of its campaign to finance  
the company and has exceeded its  
target...

**Range**  
255 kilometers according to  
WLTP standard

**Solar Range**  
Up to 34 km/day

**Price**  
€25,500

Low cost - €16000 (~A\$24000)  
– with option to buy battery (extra 25%) or lease





2017

Sion from

SONO  MOTORS



2017

# dyson



# dyson

NEWS 19 May 2020

## Dyson unveils the \$1 billion electric car it axed

Sir James Dyson – founder of household electrical appliance company **Dyson** – has revealed the electric car his company was working on before **cancelling the project late last year**.

Dyson began developing the seven-seater car – codenamed 'N526' – in 2017 with a total planned budget of approximately AU\$3.7 billion, as reported by *The Times* [\[1\]](#).

However, by the time work was halted due to exceeding development costs in October 2019, Mr Dyson had already invested AU\$941 million of his own money into the project.

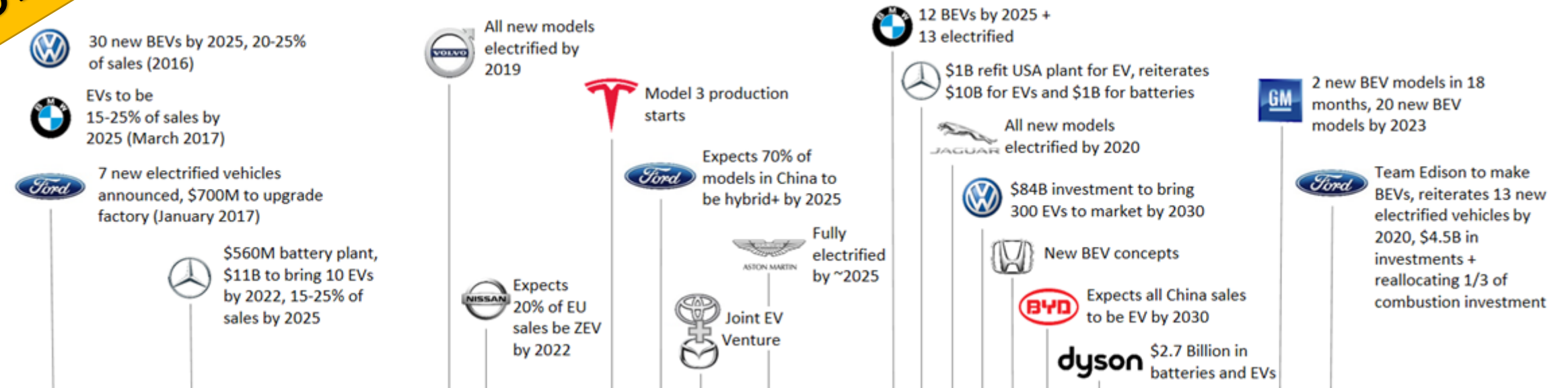


2017

So... how are the established  
players reacting?



# 2017



BEV = Battery Electric Vehicle  
 PEV = Plug-in Electric Vehicle  
 ZEV = Zero Emission Vehicle  
 EV or “electrified” = hybrid, plug-in hybrid, or BEV



2017



## Volvo: “All new models electrified after 2019”



- Ordered entirely online
- Available on a subscription/lease basis – not for outright purchase
- Will use “Polestar Spaces” – not showrooms



2017



# Volvo Polestar 1



- PHEV with 150 km electric range
- Accepting “applications” now
- Low volume production – 500 per year
  
- **All future models to be fully electric, starting with the Polestar 2 (2019)**





# Volvo Polestar 2

- All future models to be fully electric, starting with the Polestar 2 (2019)



NEWS 29 April 2020

**Volvo Polestar 2 electric car dearer than Tesla Model 3, due in Australia late 2020**

"Polestar 2 is still intended for Australia and we are in discussion with our colleagues [from] Polestar as to the exact timing," a Volvo Australia spokesperson told *CarAdvice*.

The Polestar 2 will start from US\$61,200 (**AU\$95,050**) in the US. By comparison the Tesla Model 3 range costs from US\$39,990 (**AU\$61,890**) to US\$58,190 (**AU\$90,370**) depending on battery range and performance.

**Volvo delays Australian launch of Polestar 2 EV and XC40 plug-in**

Volvo confirmed this week that the Australian launch of the two vehicles will be put off until 2021, around the same time that the electric vehicle maker's head of design Max Missoni hopes to launch the Polestar 3.





2017



## Mercedes Benz: “10 EVs to market by 2022”



- Has developed the EQ platform/sub-brand for electric vehicles
- Is investing \$11 billion in dedicated EV/battery manufacturing facilities





# Mercedes Benz: “10 EVs to market by 2022”



## Full Electric

By 2022, it is anticipated Mercedes-Benz will offer 7 pure Battery Electric Vehicles (BEV) across all segments. The first of which will be estimated to arrive in 2019; the EQC. The new generation of electric vehicles is based on an architecture developed specifically for battery-electric models. Locally emission-free driving is possible at all times, with impressive range possible from a single charge.

EQ Full Electric

Explore Mercedes-Benz Full Electric Vehicles.

EQC



[Find out more](#)



2017



# Mercedes Benz EQ C





# Mercedes Benz EQ C



2017



Volkswagen: “Will have 300 EV models by 2030”



2017



# Volkswagen I.D.

- Based on the all-electric MEB platform
- All vehicles to have 350-400 km+ range



I.D. Crozz (aiming for production 2020)

I.D. hatchback (2016 prototype, aiming for 2019 production)





# Volkswagen I.D. is now the “I.D. 3”

- Production started in 2019, deliveries starting in Europe now!





# Volkswagen I.D. Crozz is now the “I.D. 4”

The face of Volkswagen's electric push into Australia has been revealed.

The ID.4 Cross SUV will be the first Volkswagen electric vehicle to be offered in Australia when it touches down in 2022 or 2023, with the Golf-sized ID.3 hatchback to follow in its wheel tracks.



The German brand's Australian operation has been vocal about its intention to introduce the all-new electric SUV here from around 2022, however, managing director Michael Bartsch says that plan is still yet to be confirmed.

“We’re doing all our thinking and planning on 2022/2023, but it’s not formally locked in simply because the ramp-up in Europe is not clearly defined, and the demand will be substantially addressed in Europe before we get it,” Bartsch told carsales.

Bartsch explained the potential supply issue was partly symptomatic of Australia's lax CO2 emissions regulations, which remain about 10 years behind Europe's.

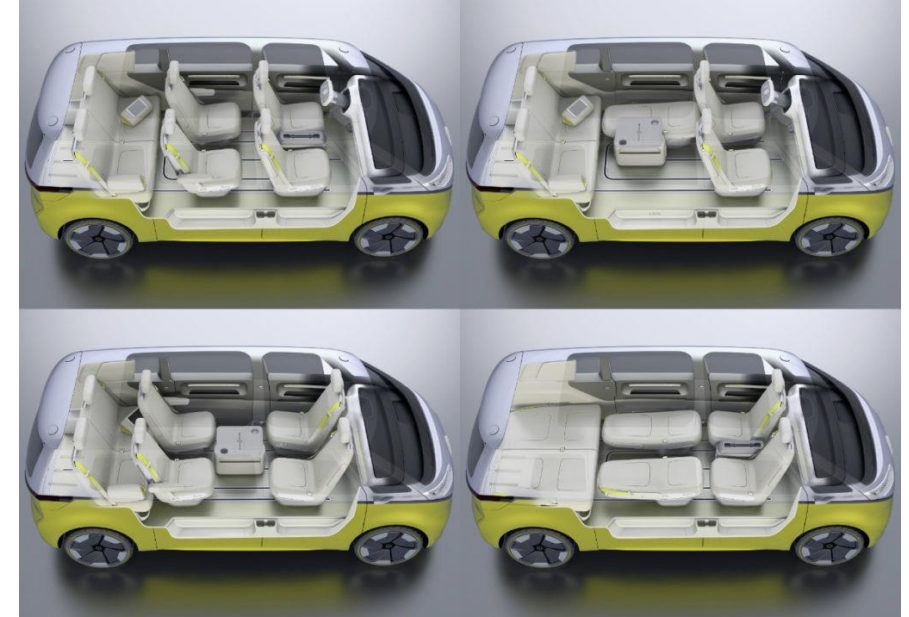




2017



# Volkswagen I.D. Buzz



- Aiming for 2022 production
- Flexible interior layout
- All-wheel drive
- Fully autonomous (2025+)
- 150 kW CCS charging
- 600 km range (NEDC)





# Volkswagen I.D. Buzz is now the “I.D. 7”

Still the same – still coming in 2022!



2017



# Porsche Mission-E

- To be launched in 2019
- 480 km range
- 350kW CCS charging





# Porsche Taycan

- To be launched in 2019 ← 2020
- 480 km range ← 420 km
- 350kW CCS charging ← 270 kW

The much-anticipated **Porsche Taycan** will be offered in Australia from **\$191,000 plus on-road costs** for the entry-level **4S**, with the electric vehicle completing the **0-100 dash in a claimed 4 seconds flat – 0.2 seconds faster** than the equivalent 911.



2017



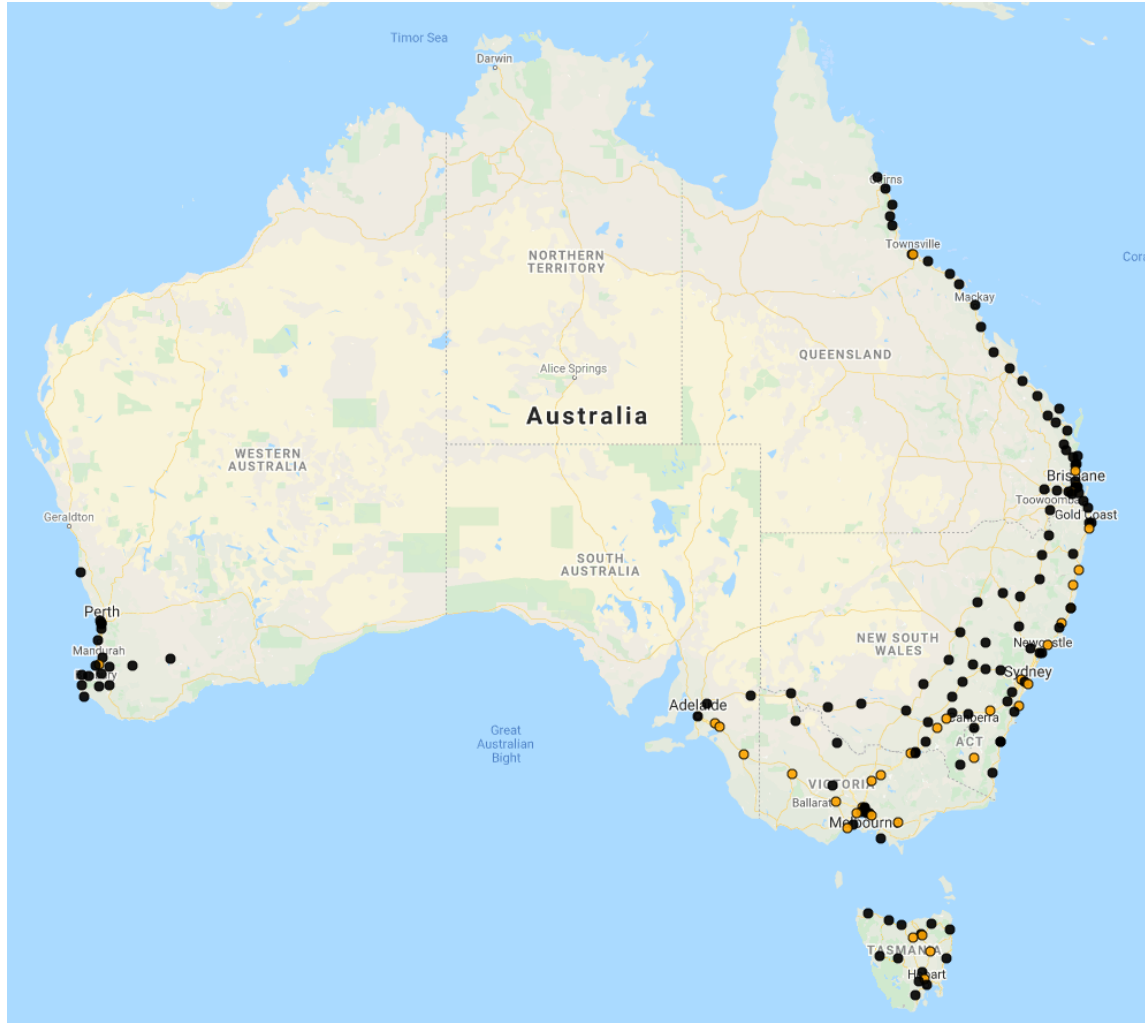
# Porsche 350 kW chargers

400 km of range in 15 minutes





# Porsche 350 kW chargers



2017



# Tesla Motors

TESLA

New Roadster (fan image – Jan Peisert)



Tesla Truck  
(semi-trailer)  
Launch event  
November 16



Model Y  
(fan image –  
Autocar)





TESLA

# Tesla Motors





2017





Available in Australia now!



"Honda e is just for Japan and Europe," he said. "There are no plans unfortunately for Australia now."



At this stage there are no plans to introduce the new Smart car in Australia, however, it will go on sale in Europe later this year.



2017



# Chevy Bolt

Designed at the Holden Design Studio in Melbourne ...  
... but only available in LHD markets

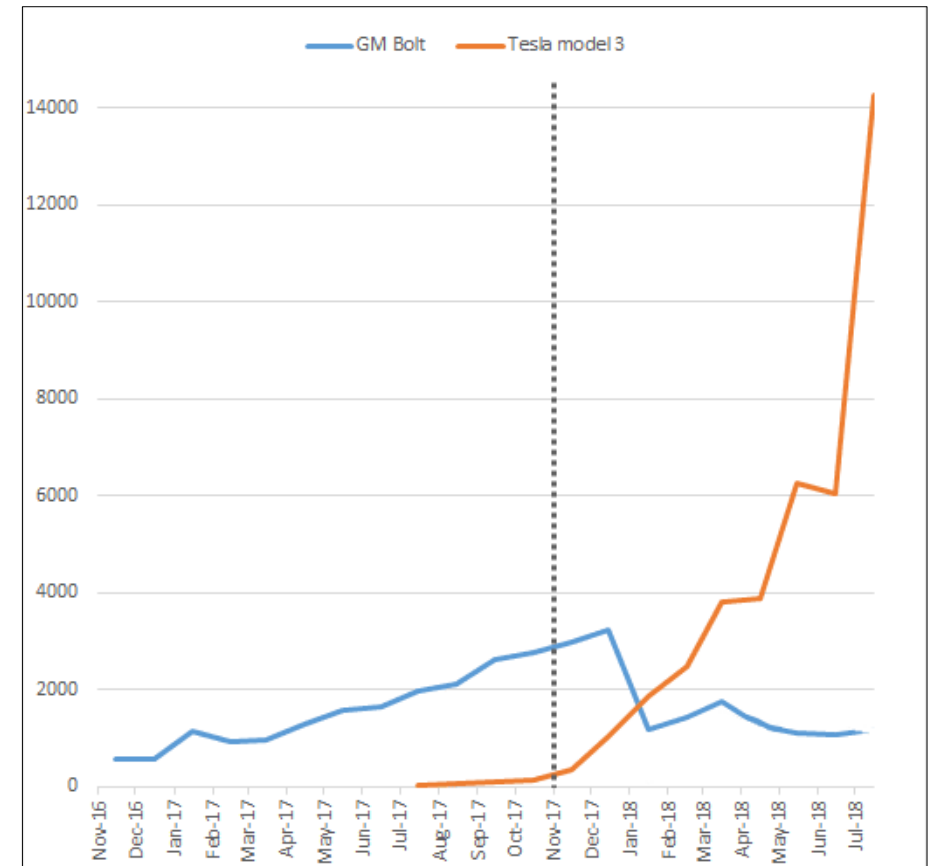


- Marketed as a Model 3 competitor
- US\$37,500
- 380 km range (EPA)





# Chevy Bolt



2017



# Hyundai Ioniq



- Available in hybrid, plug-in hybrid and full electric versions
- Full electric has a 28 kWh battery – but a range of 200 km
- Launched in March 2016, already available in USA, Europe, New Zealand...
- Coming to Australia in 2018-19!





# Hyundai Ioniq

**It made it!**

Refreshed version in 2020 included a 38 kWh battery, with a >300 km range



Ioniq will become a sub-brand for Hyundai in the future, with multiple variants



But since 2017, Hyundai had another surprise for us...





# Hyundai Kona



64 kWh battery, and  
price starting around \$60-65,000

Real world range of 400-450 km

On its Australian launch in early  
2019, it effectively halved the entry  
price of a >300 km EV



2017



RENAULT

# Renault Zoe

2012 – 22 kWh battery – 140 km  
2016 – 41 kWh battery – 250 km  
Same physical size – same cost!



- Price - \$45,000
- Available to order in Australia now – if you have an ABN
- No DC charging – only AC (although it is 22kW)
- Kangoo ZE (delivery van) also soon to be available







**RENAULT**

# Renault Zoe

2012 – 22 kWh battery – 140 km

2016 – 41 kWh battery – 250 km

2019 – 54 kWh battery – 315 km

**.. But not for Australia**



Due to lack of promotion and possibly lack of fast charging, Renault will be pulling the Zoe from sale in Australia.

However this may mean there are some good deals available...



2017



# Nissan Leaf

2011 – 24 kWh battery – 140 km  
2018 – 40 kWh battery – 240 km  
Same physical size – lower cost!



- Announced September 2017, to be available in Australian in 2018
- ProPilot – advanced driver assist, future autonomous capability
- Second option to be available in 2019: 60kWh battery, 360 km range





# Nissan Leaf

2011 – 24 kWh battery – 140 km  
2018 – 40 kWh battery – 240 km  
Same physical size – lower cost!



- Announced September 2017, to be available in Australian in 2018

*Eventually available in late 2019*

- ProPilot – advanced driver assist, future autonomous capability

*Was never offered in Australia*

- Second option to be available in 2019: 60kWh battery, 360 km range

*Now announced for 2021!*



2017



TESLA

# Tesla Model 3



- Standard – ~50kWh – 340 km – A\$55k
- Long Range – ~75kWh – 500 km – A\$70k

- 7000 (est.) reservations in Australia
- Leverage existing Tesla infrastructure - sales, service, charging
- AutoPilot capable – advanced driver assist, future autonomous capability





TESLA

# Tesla Model 3

- Standard – ~55kWh – 340 km – A\$70k
- Long Range – ~75kWh – 500 km – A\$95k



- 7000 (est.) reservations in Australia

Approx 5000 have been delivered in Australia since they started in Sept 2019.



2017

# The options next year?

\$45,000

\$60,000

200 km

340 km



Zoe



Ioniq



Leaf

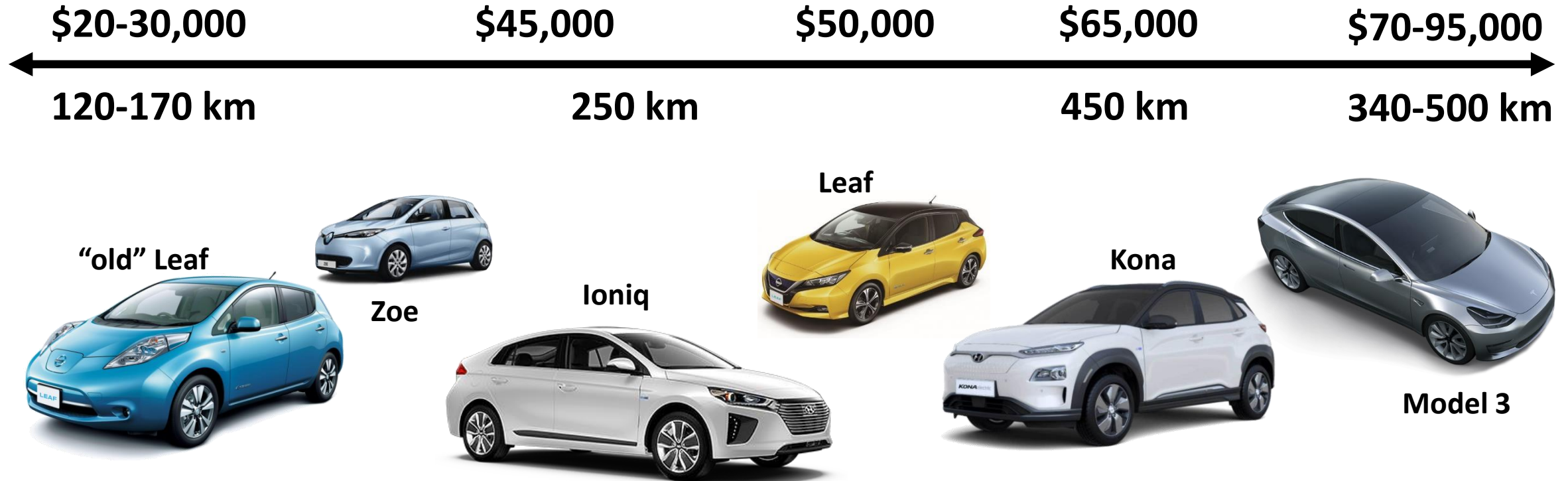


Model 3

Along with the existing options – Telsa Model S & X, BMW i3, Outlander PHEV ...



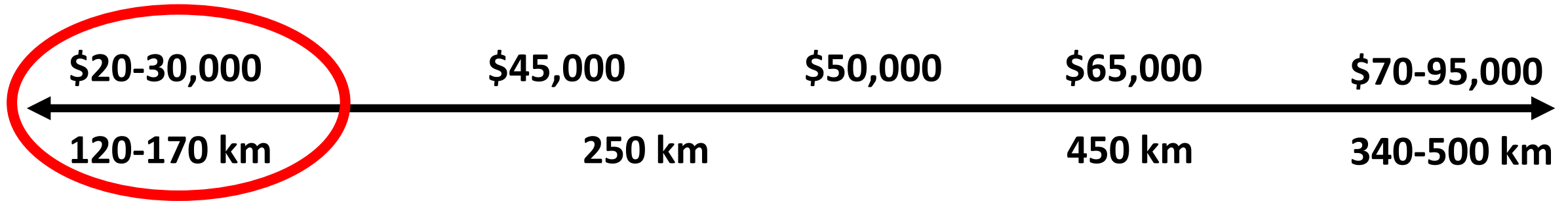
# What has actually happened...



Along with the existing options – Telsa Model S & X, BMW i3, Outlander PHEV ...



# What has actually happened...



- Availability of second hand EVs has provided a welcome increase in options at the lower end of the market
- EVs are imported by individuals and by businesses who have established a market for those not comfortable with the process
- Growth in fast charging networks make a shorter range vehicle more viable
- Imported vehicles apply pressure on the manufacturers to bring models in through official channels



# The next three years?



Nissan Ariya



Citroen e-C4



BMW iX3



MG ZS EV



Tesla  
Cybertruck



Recommended EV news sources:

**THE DRIVEN**

**electrek**



Images from:

EVOX Images – CarsGuide – Wikimedia Commons – Fully Charged – Teslarati  
CarAdvice.com.au – AutoCar – Jan Peisert – Performance Drive – Electrek  
TheDriven.io – MotorTrend – and manufacturer press packs

