SA’s nascent EV market

Key opportunities, drivers & barriers

Electric Vehicle Technologies Summit

Crowne Plaza, June 2019

The Global EV Market

- Global EV market was valued at ~R1.6 trillion (USD 118.9 billion) in 2018 with 783 000 units sold.
- EVs account for 2.1% of the automotive industry with a CAGR estimated at 22.3%.
- Private transport accounts for the largest market share with public transport accounting for far less (*with the exception of China*)

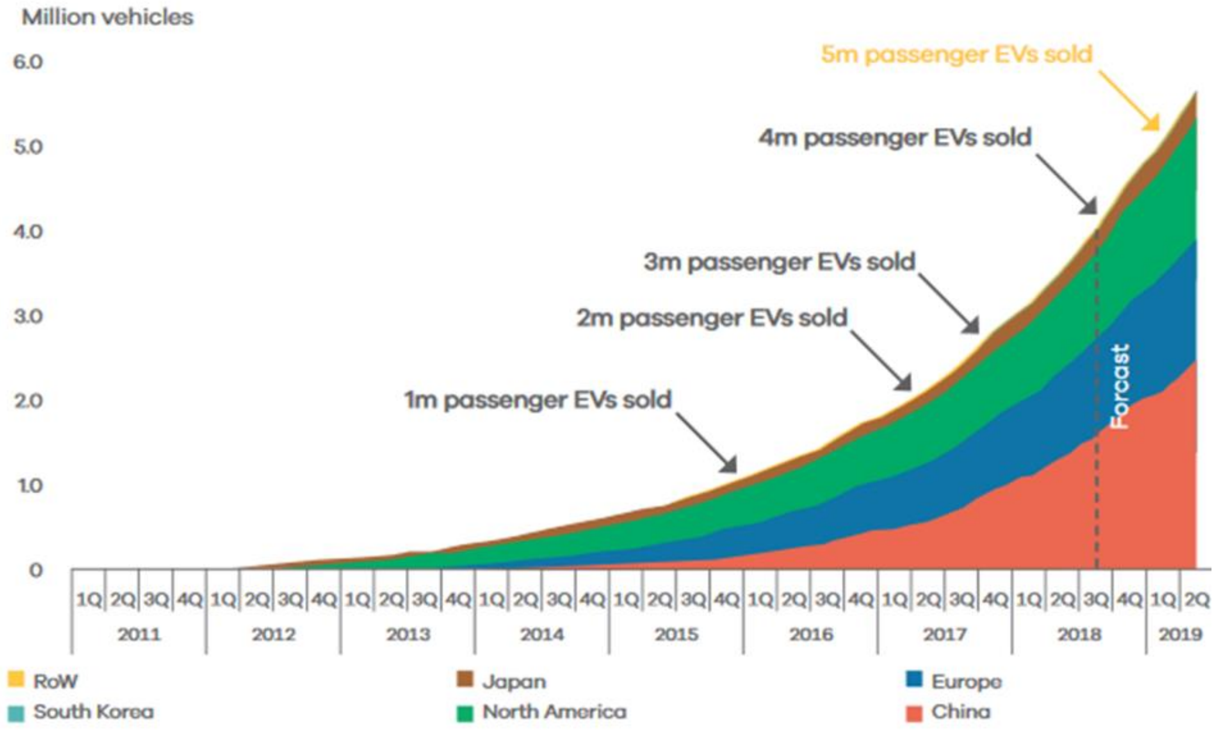
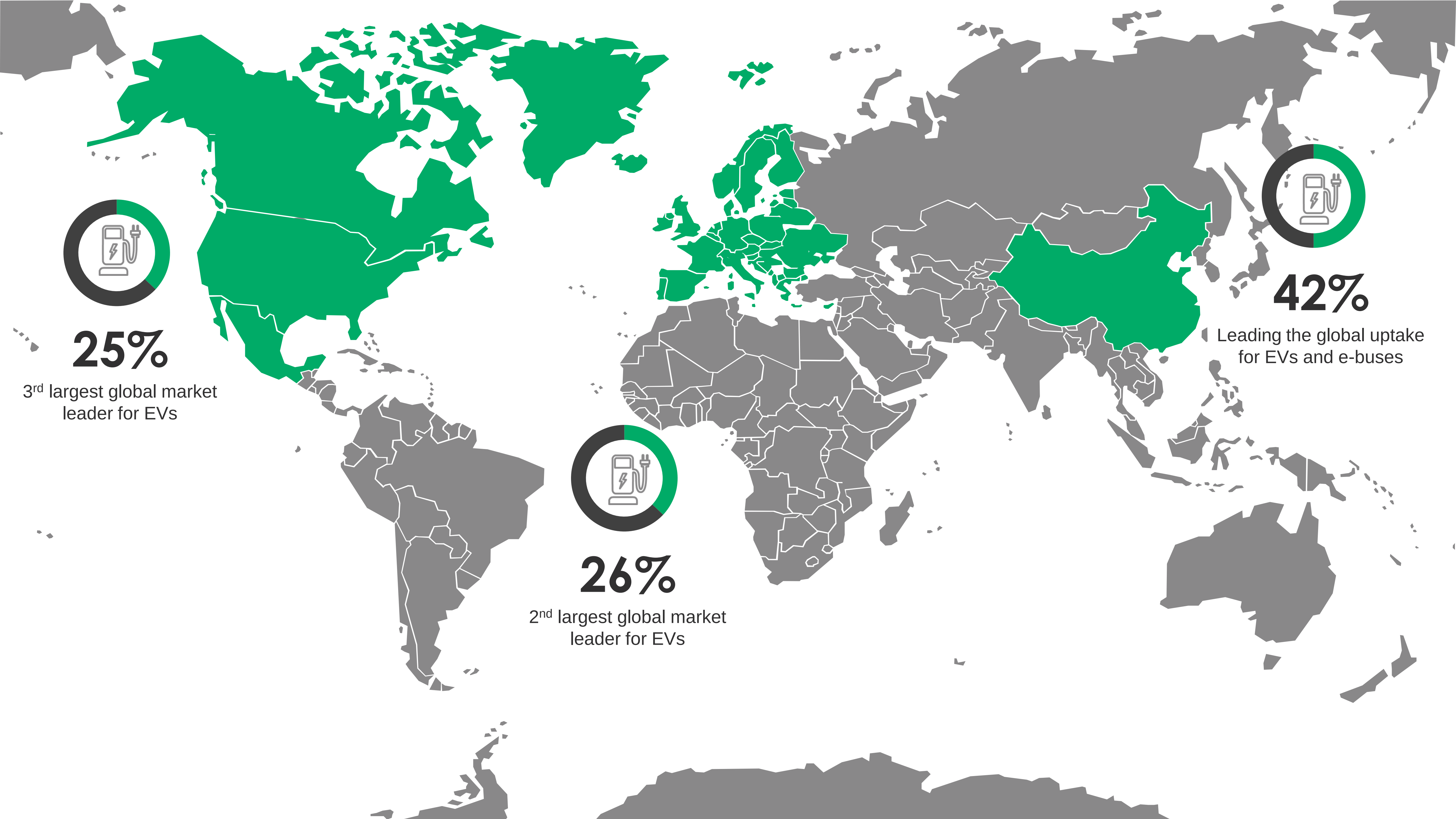
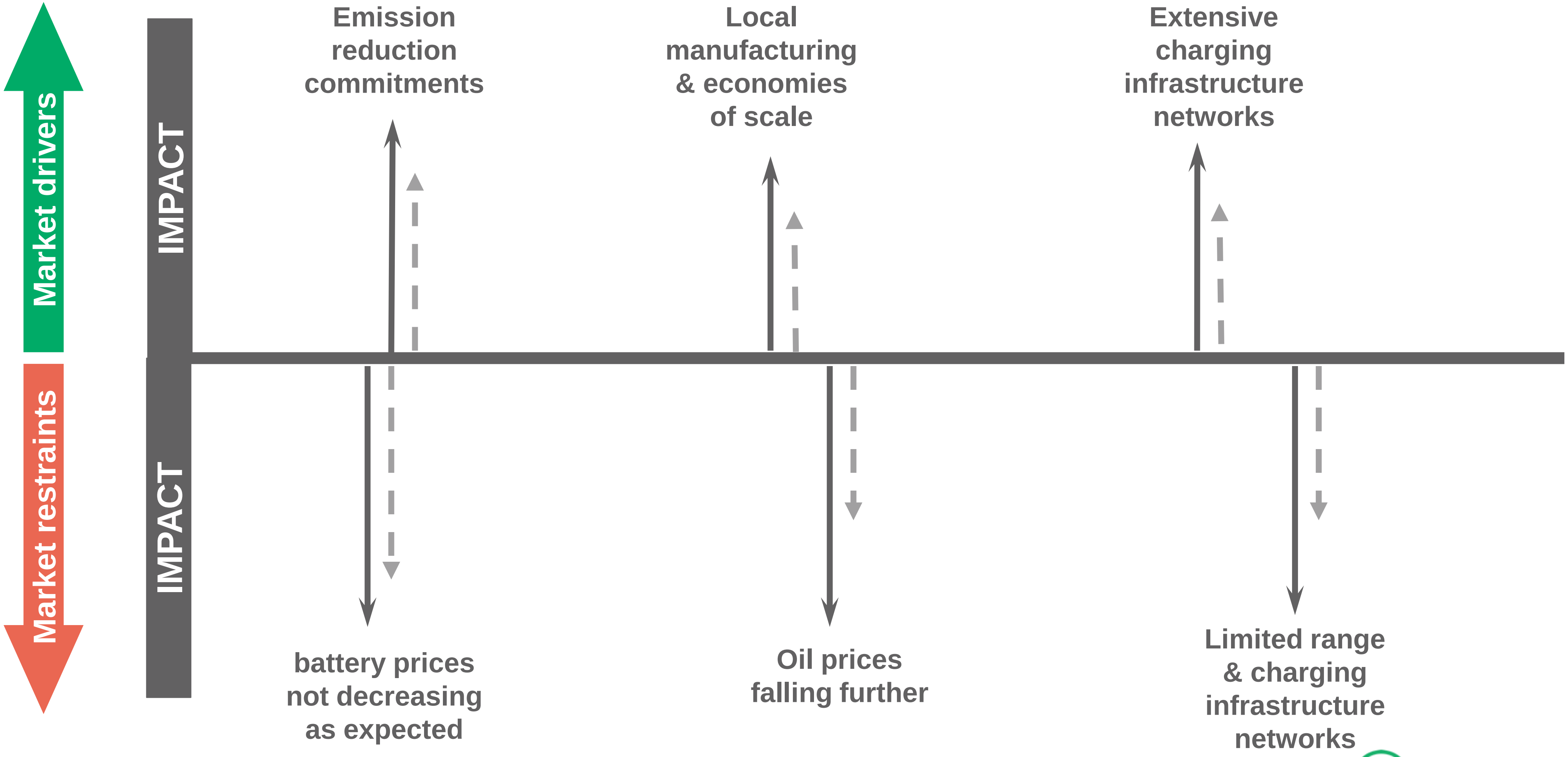


Figure 1: Cumulative global passenger EV sales, current & forecast


25%
3rd largest global market leader for EVs
26%
2nd largest global market leader for EVs
42%
Leading the global uptake for EVs and e-buses

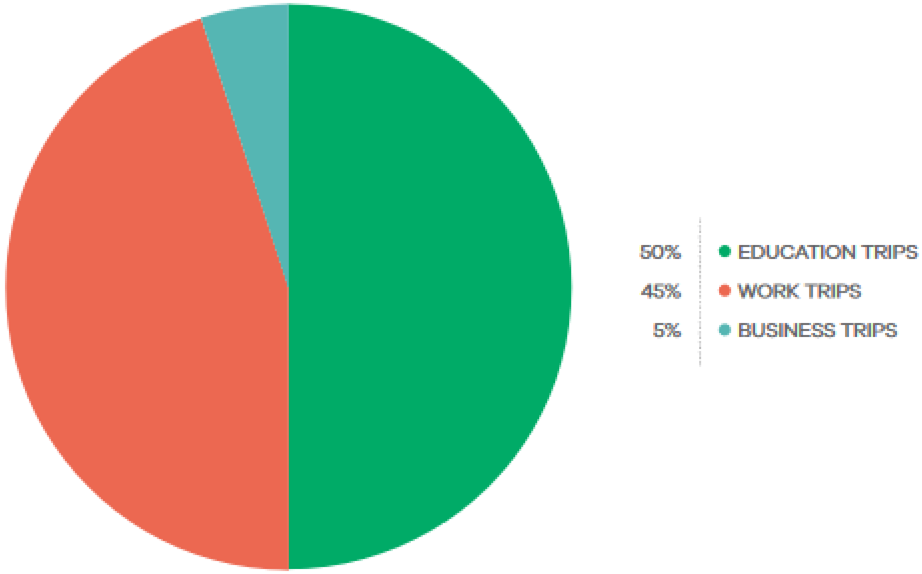
Market enablers and barriers (or drivers and restraints)



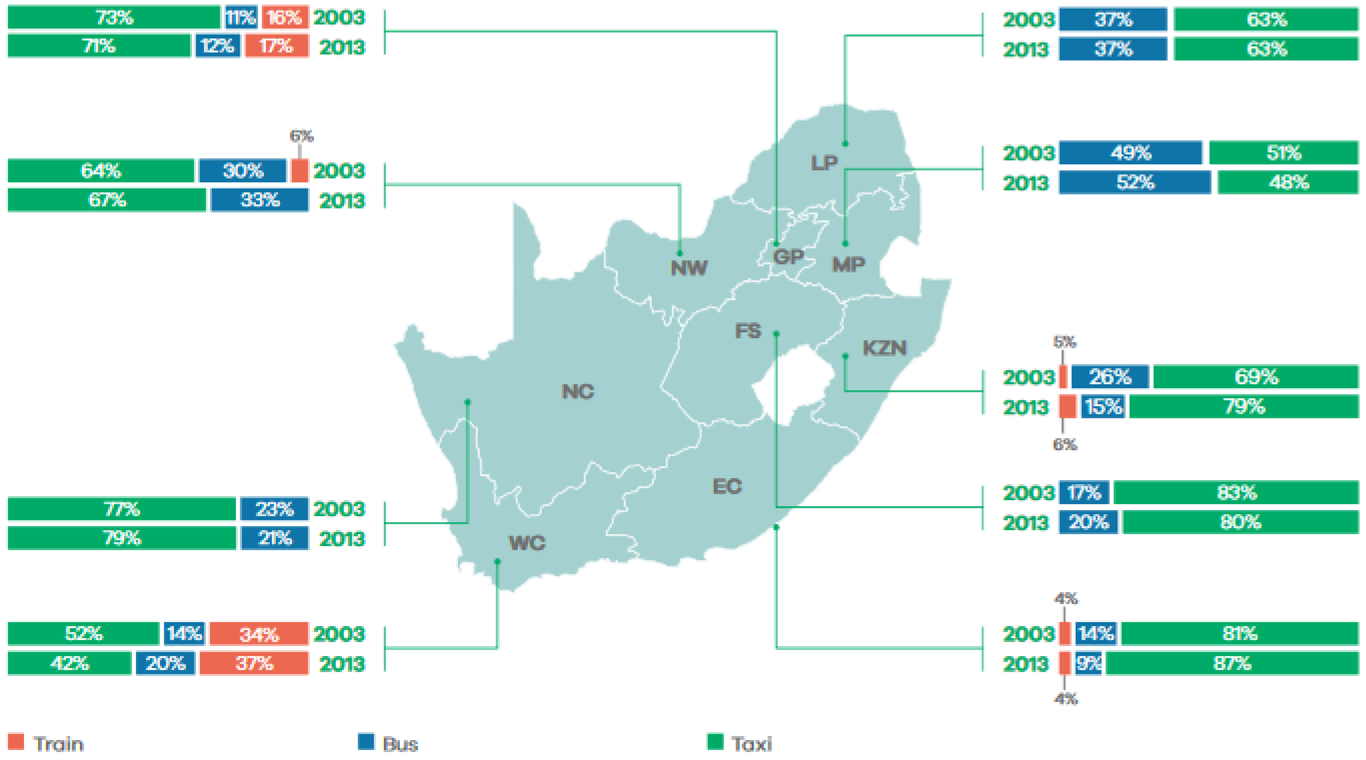
The South African Perspective

Commuter behaviour & travel patterns

- Education is the main primary reason for increased travel time in the country
- 62.1% of these trips are made with private transport
- These two factors & more paint a picture of mobility patterns in the country



The case for public transport



EV sales in the country

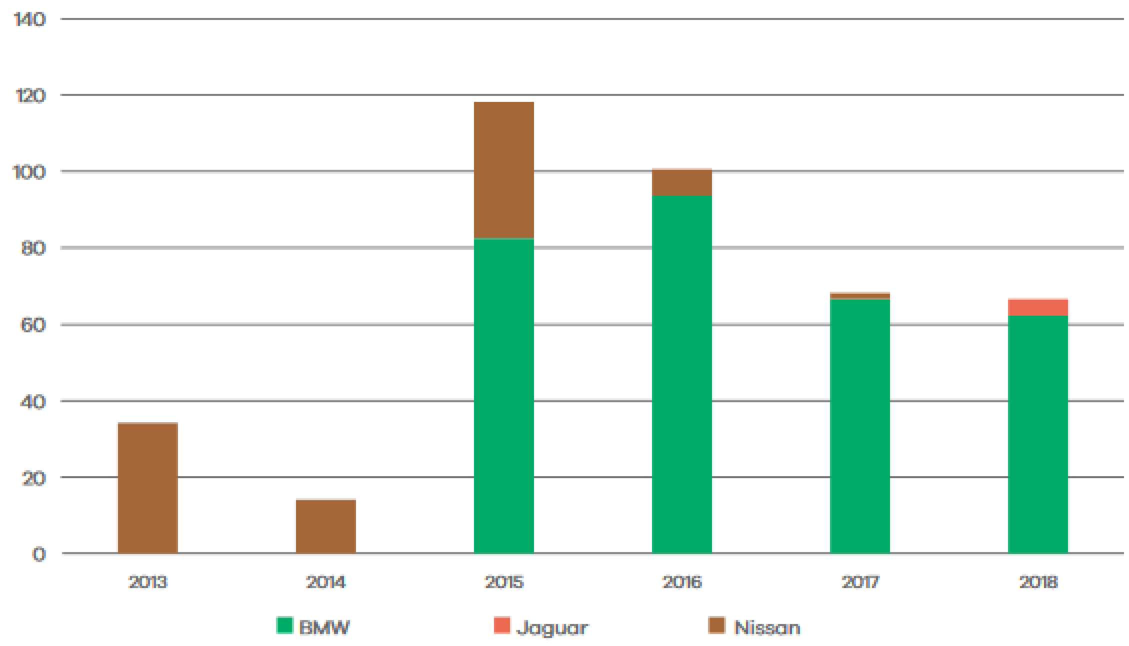


Figure 9: Passenger electric vehicle sales in South Africa: 2013 – 2018

SA market drivers

Macroeconomic drivers:

- GHG emission reduction commitment
- The potential loss of automotive trade markets

Local demand drivers:

- Climate conscious consumers
- Rising fuel costs
- Falling EV costs
- Reduced range anxiety

Market Opportunities

The e-bus opportunity

- Public transport presents the best business case for electrification
- E-buses are surpassing the growth of every other EV segment globally
- Buses are designated & subject to 70-80% local content for public procurement
- Cities & municipalities have already started looking at mechanisms to finance e-buses

Passenger vehicle manufacturing

- Long standing policy certainty and strong government support are the two factors driving the growth of SA's auto industry
- Medium to long-term opportunity for SA to be used as a manufacturing hub for electric passenger vehicles

Lithium ion battery production

- SA possesses 78% of the world's manganese. Moreover, other raw materials required in the cathode are mined in sub-Saharan Africa.
- In light of the safety challenges of transporting Lithium-Ion Batteries (LIBs), manufacturing in SA also represents a strong entry point to the wider African market.

Market barriers

- Products not fit for the SA market
- High import duties
- Lack of policy certainty
- Lack of local skills to facilitate market growth
- Lack of enabling finance terms

Macroeconomic impact of EV uptake

- Transport sector consumes ~27 billion litres of liquid fuel per year
- 60% of that consumption is met through imports
- There is a potential ~R8.1 billion per year balance of trade saving for the SA economy for increased EV uptake but this is not without its pros & cons

Notable concerns & benefits:

- Balance of trade saving on the back of decreased oil importation is not proportional to the revenue generated through the fuel levy
- Implications to the RAF
- Better price control on electricity than oil
- Ability to meet GHG emission targets & energy security

Thank You

Khanyiselo Kumalo

Khanyi@greencape.co.za

021 811 0250