

# Current and Future Trends of the South African Car Parc

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# Factors affecting the Car Parc and Energy Demands

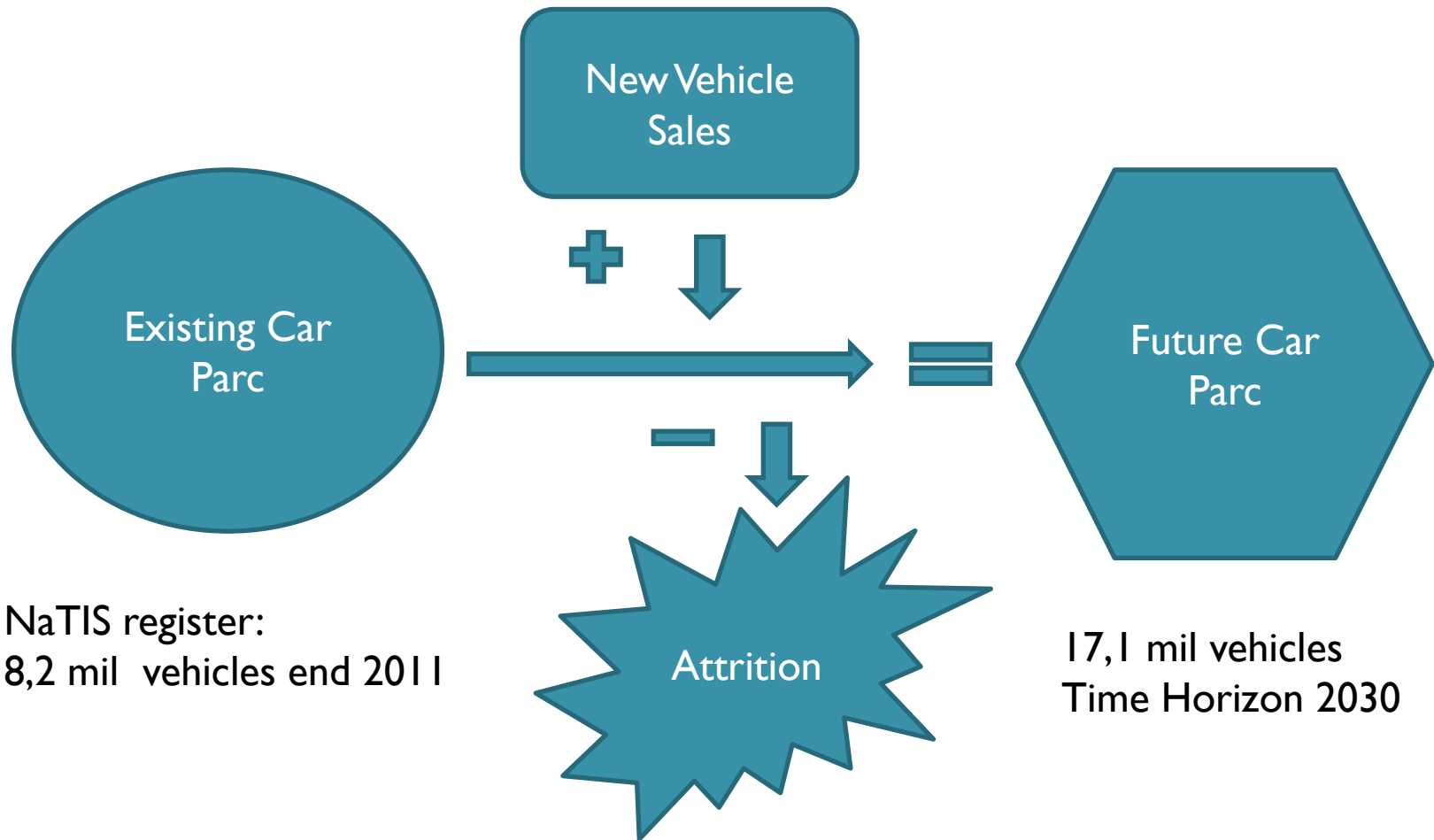
- Number of vehicles
  - Age of vehicles
    - Type of vehicles
      - Energy consumption



## Model developed:

- Kept simple (lots of assumptions based on historic data and extrapolated) and lessons learned from 2006 study
- Analysed world trends and selected scenarios for South Africa
- Assumptions made and variables can be changed as real information becomes available

## Car Parc Size and Growth



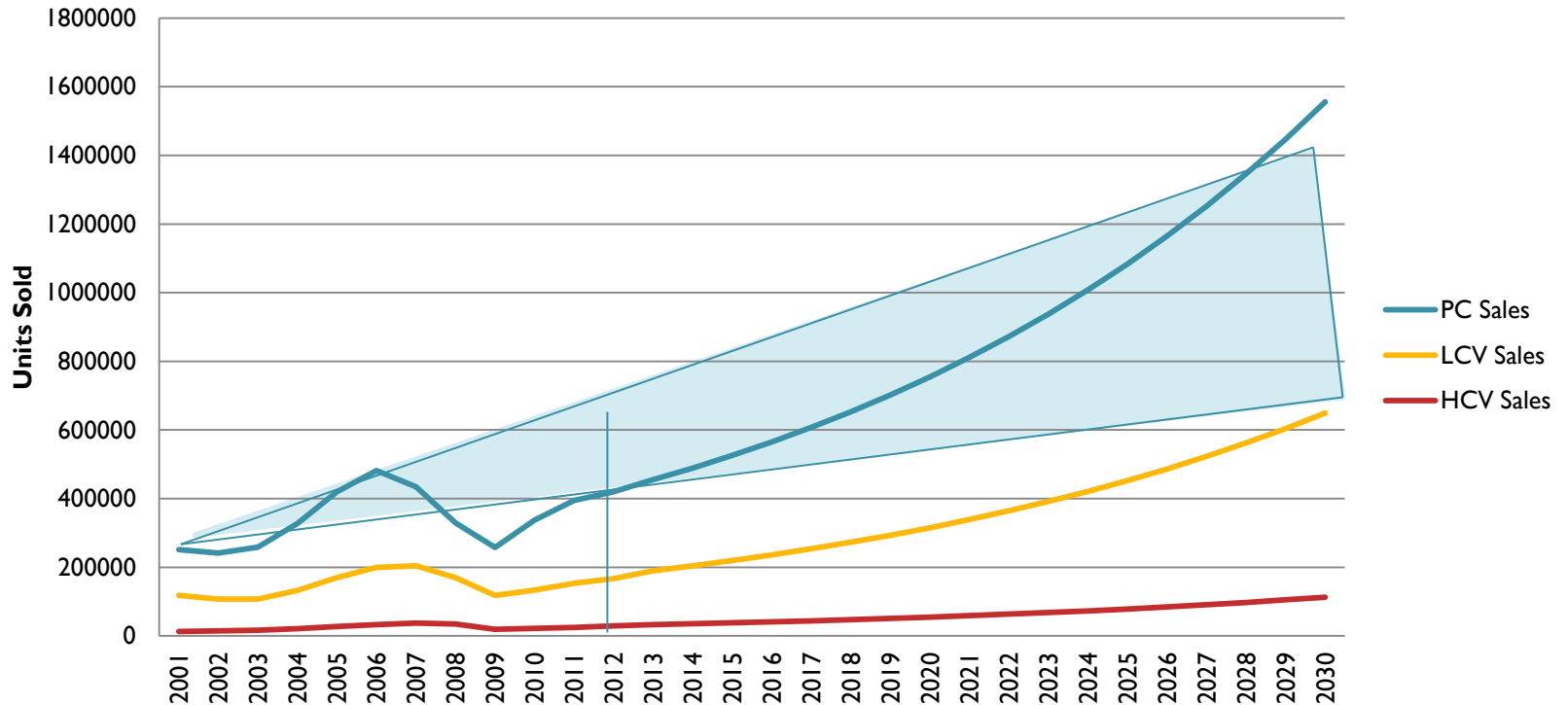
# Factors affecting Growth

## 1. New Vehicle Sales

## 2. Attrition

- Economic Climate
- Alternative Transport
- Price
- Technology
- Infrastructure

### Vehicle Sales (7,5% growth)



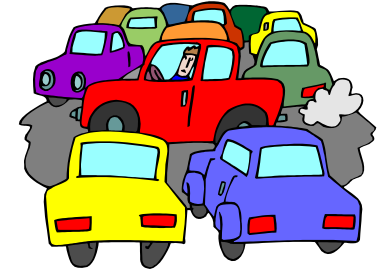
## Factors affecting Growth (continued)

1. New Vehicle Sales
2. **Attrition**
  - Scrapping of Vehicles
    - Accidents
      - Uneconomic to repair
      - De-registered

Old vehicles parc decline faster than new vehicles and certain assumptions are based on historical data for attrition rate.

- Impending Periodic Road-worthy Testing will impact on vehicles being phased out.
- Stricter Rules on repair quality after accidents and higher % vehicles being insured may have an effect on vehicle attrition

## Types of Vehicles



### Broad Categories:

- Passenger Cars (PC)
  - Car parc: Petrol Currently 90% decrease to 78% in 2030
  - New sales: 85% Petrol currently, decrease to 75% in 2030
- Light Commercial Vehicles (LCV)
  - Car Parc: Petrol currently 56% decrease to 52% in 2030
  - New sales: 60% Petrol currently, decrease to 50% in 2030
- Heavy Commercial Vehicles (HCV) → Car parc: 95% Diesel, becoming 99% diesel in 2030 with almost 100% sales being diesel

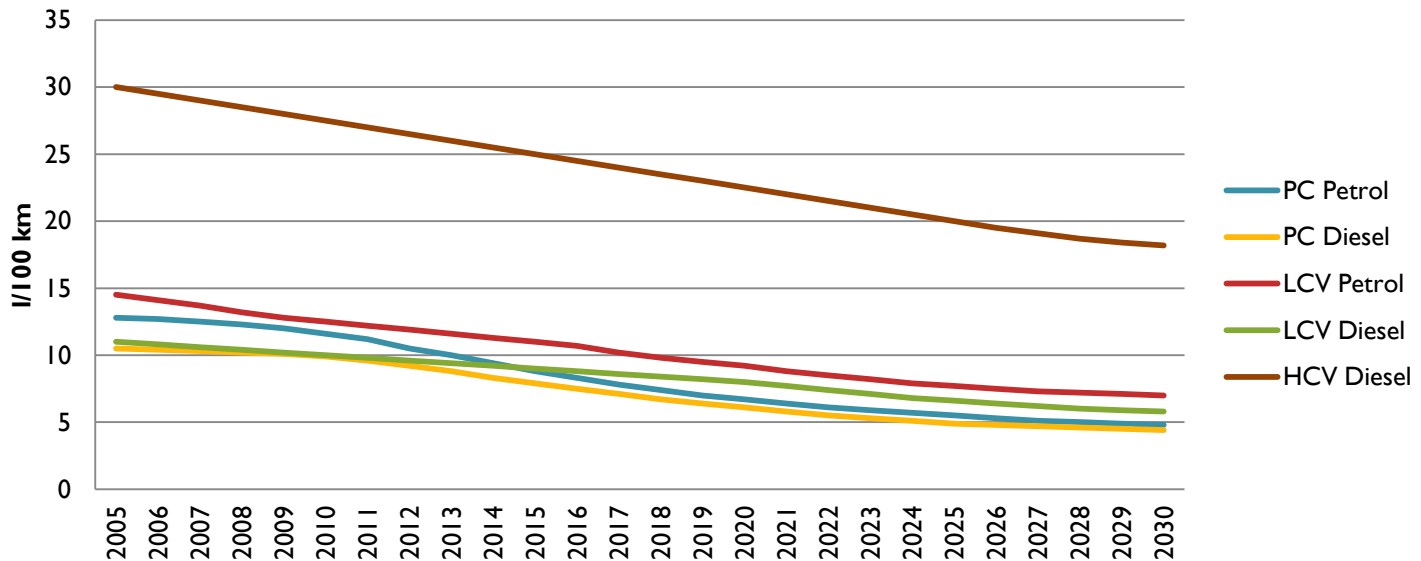
Not included are non-road going vehicles, agricultural and mining

# Developments on Fuel Economy

- ❖ Great pressure to develop more fuel efficient vehicles
  - ❖ Huge improvements are achieved and will continue
  - ❖ Leads to: Enormous demand for cleaner fuels



## Fuel Economy per Category



## Alternative Fuels

### Electric Vehicles

- Busy adding Electric Vehicle Safety Legislation to Compulsory Specification
- Slow take off expected because of “Range Anxiety”
- Expect real take-off from 2020 onwards – after Asian and European take-off



### Gas

- LP Gas and CNG as aftermarket Fitment only for time being

### Bio-Fuels

- Seen as added blend to Fossil Fuel
- No real Emission Advantages expected
- Currently more expensive than fossil fuels
- NAAMSA specified 5% max Diesel blend and 10% max Bio-Ethanol blend, provided the bio-fuels comply with EN Specs



## Factors affecting Fuel Consumption

- Engine Technology
- Driver style
- Road congestion
- Distances travelled – Urban development



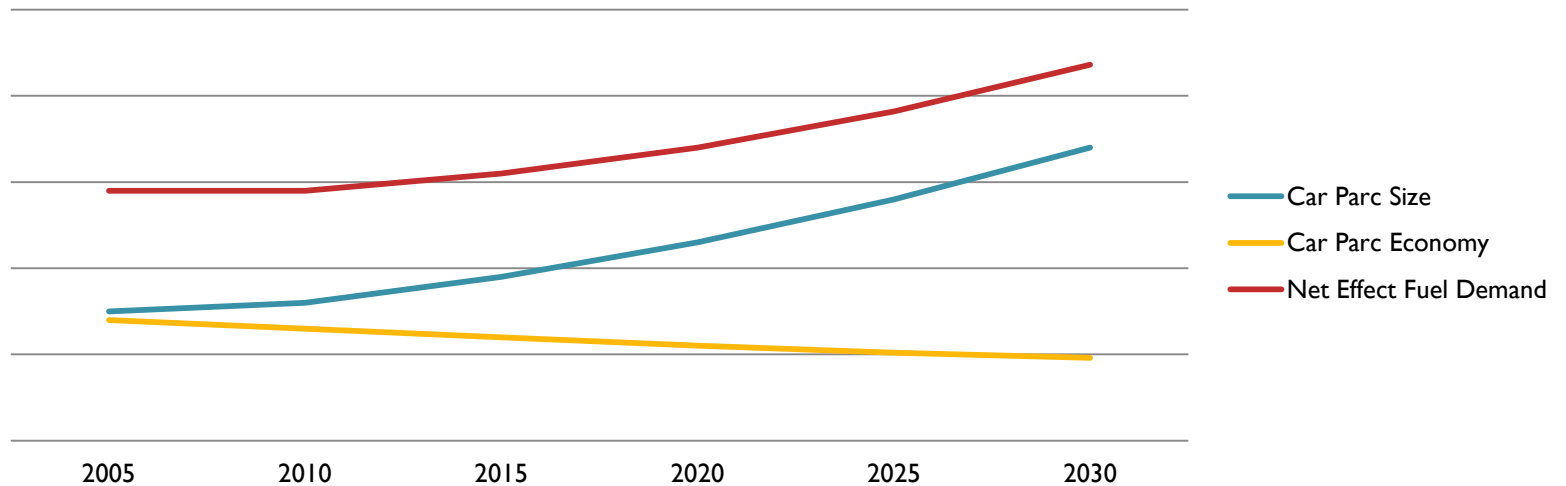
### Government led Initiatives

- Taxation on CO<sub>2</sub> emissions
- CF2 initiative – Cleaner fuels for EU5 emission standards, PPA Act
- Upgrading of Freeways
- Implementation of ITS (intelligent Transport Systems)
- Upgrading of Public Transport

## Conclusion

- ❑ Car parc increases
- ❑ Congestion grows
- ❑ New vehicles in car parc have better fuel economy
- ❑ Older vehicles with high consumption get phased out

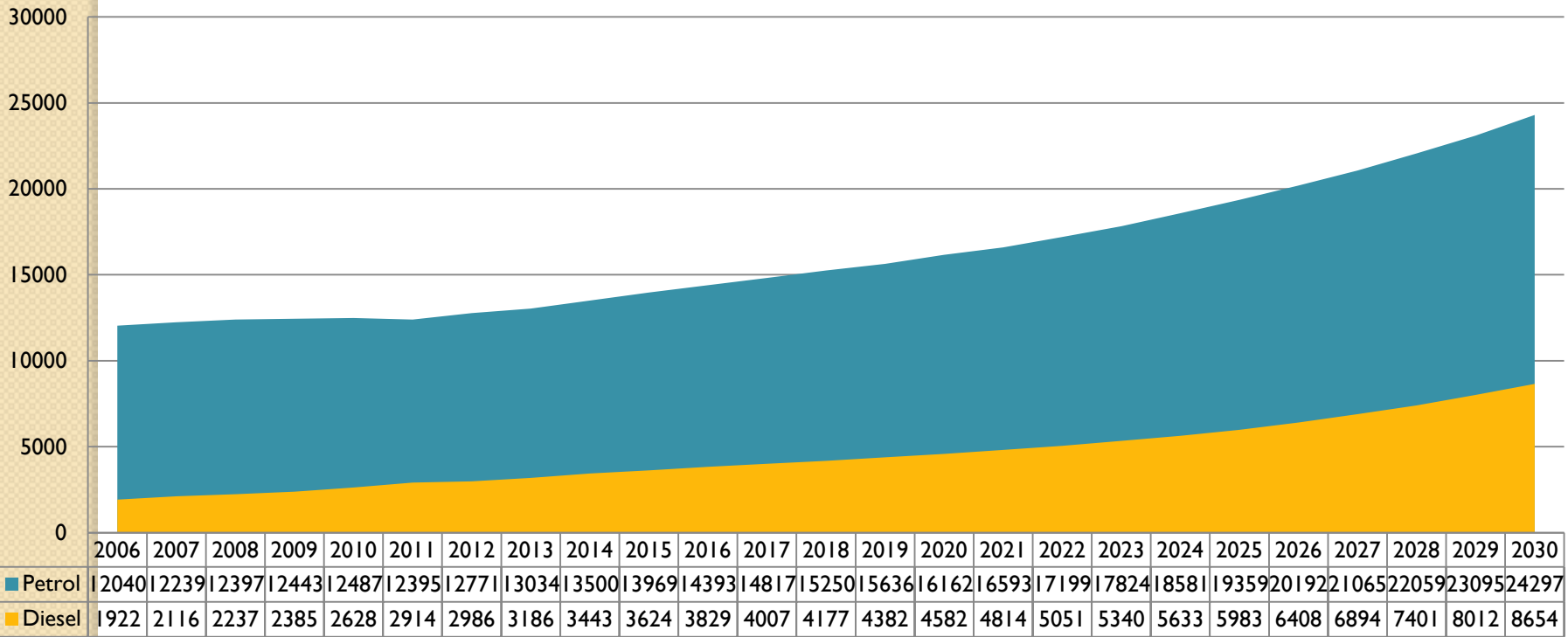
## Main Trends



**Bottom Line – Fuel demand increases**

# Predicted Fuel Demand

## Road Fuel Requirement in Mlpa



# Thank You !

