

# Transport and Climate Change

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ITE

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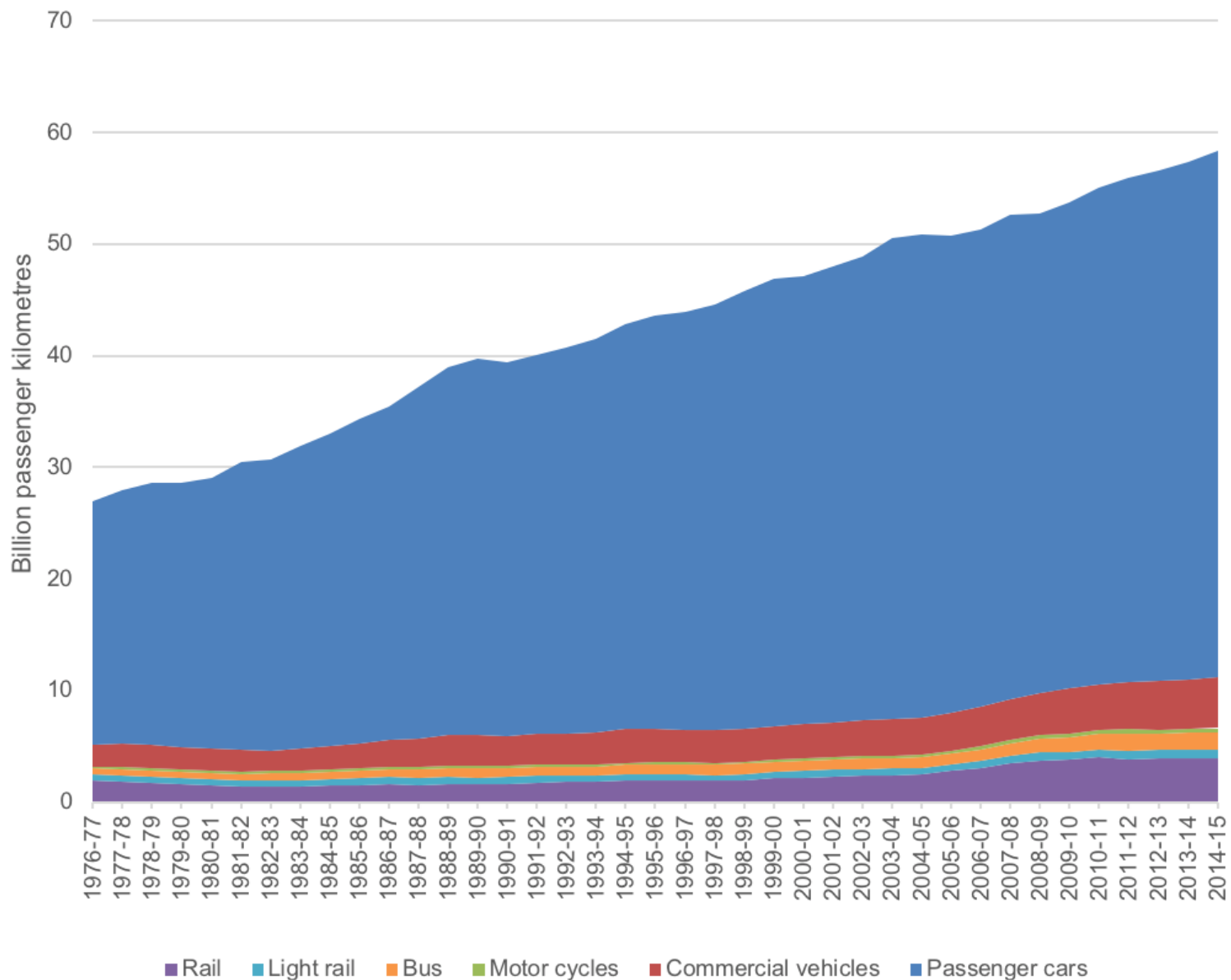


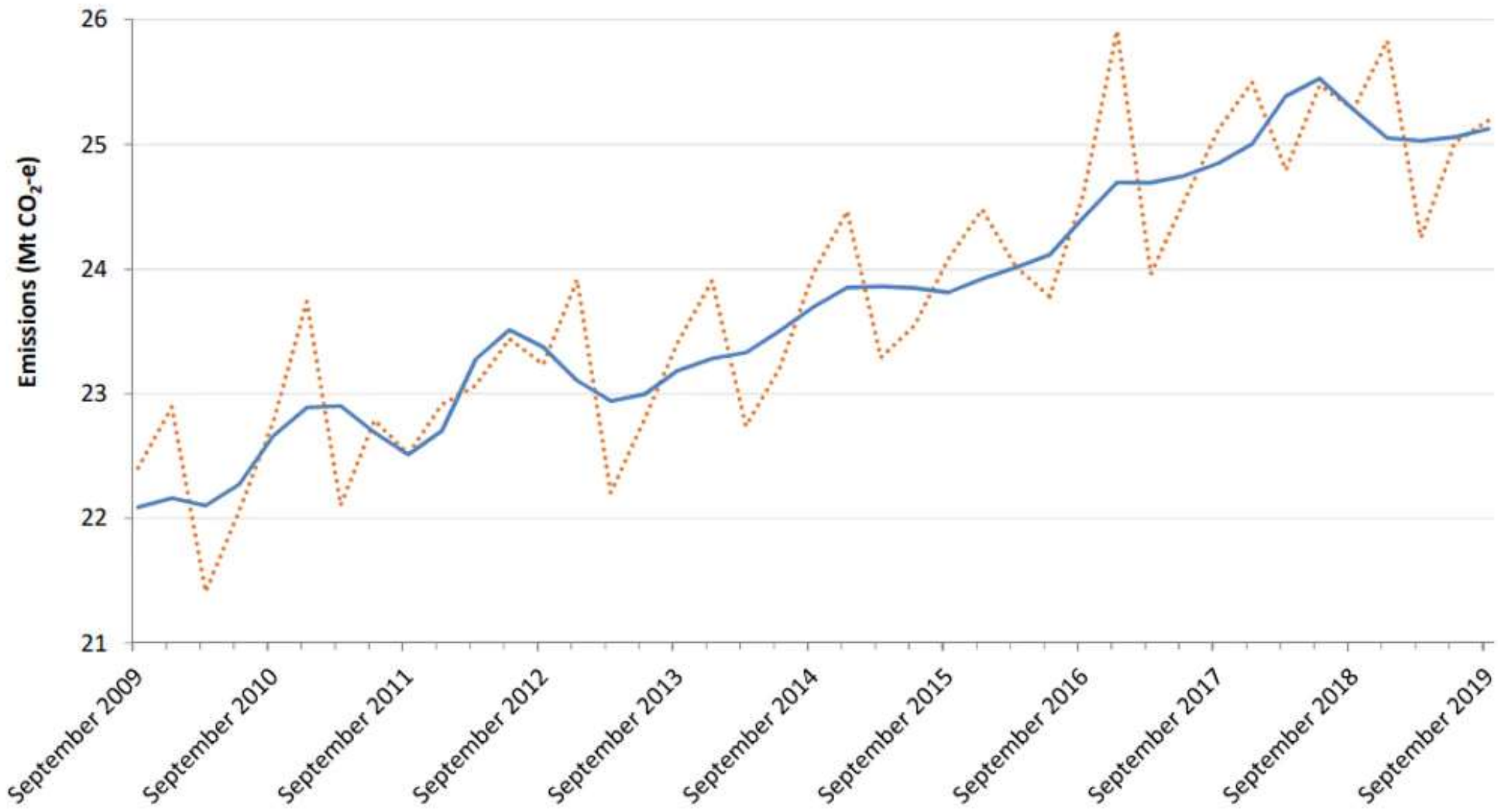
# Conclusions

- Transport is the fastest growing source of emissions
- *‘Doing more with less’*
- Aggressive and sustained action is required
- There’s have never been more opportunities to reduce transport emissions
- Road space re-allocation decisions are inevitable



# Melbourne transport patterns



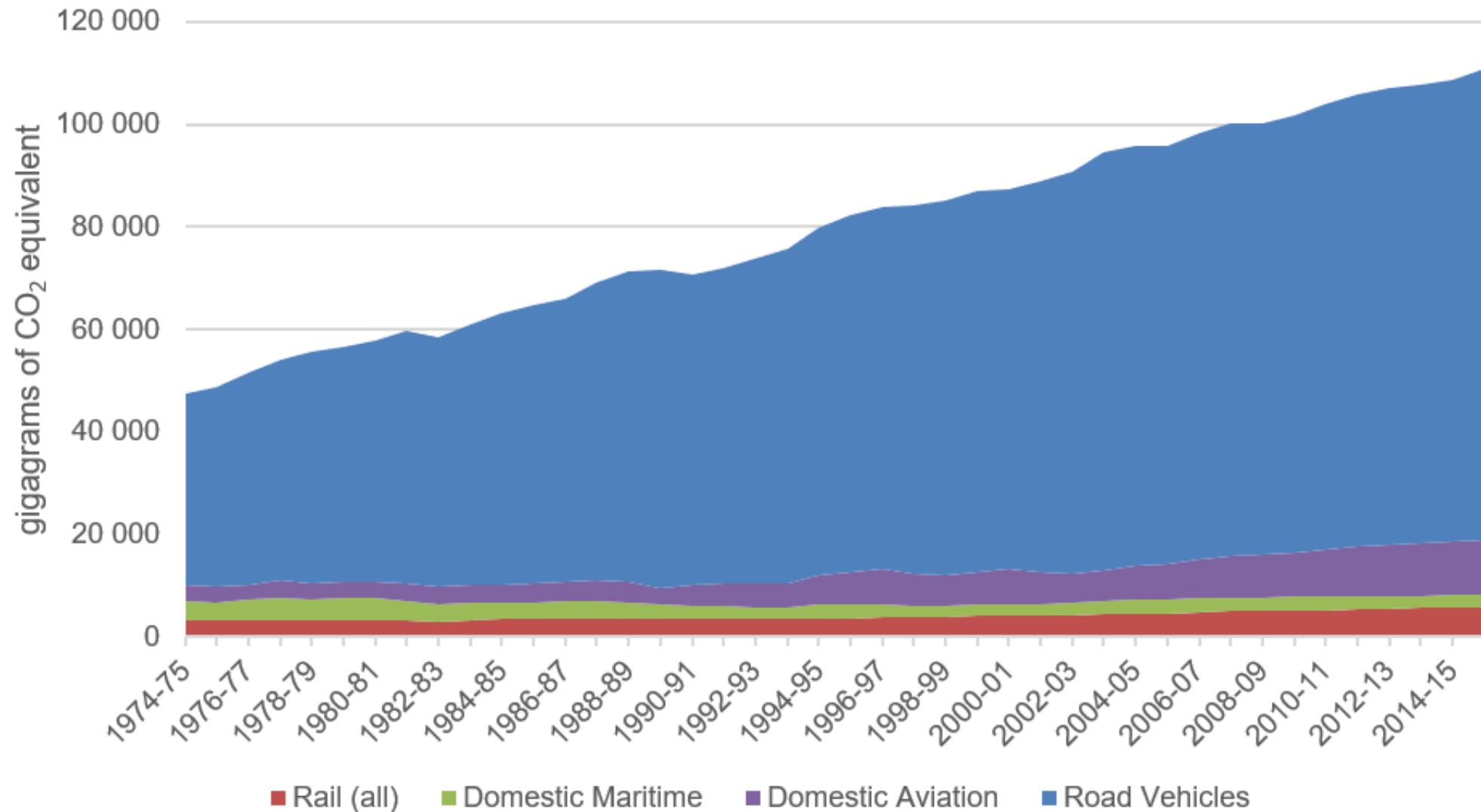


Source: National Greenhouse Gas Inventory

..... Transport - actual

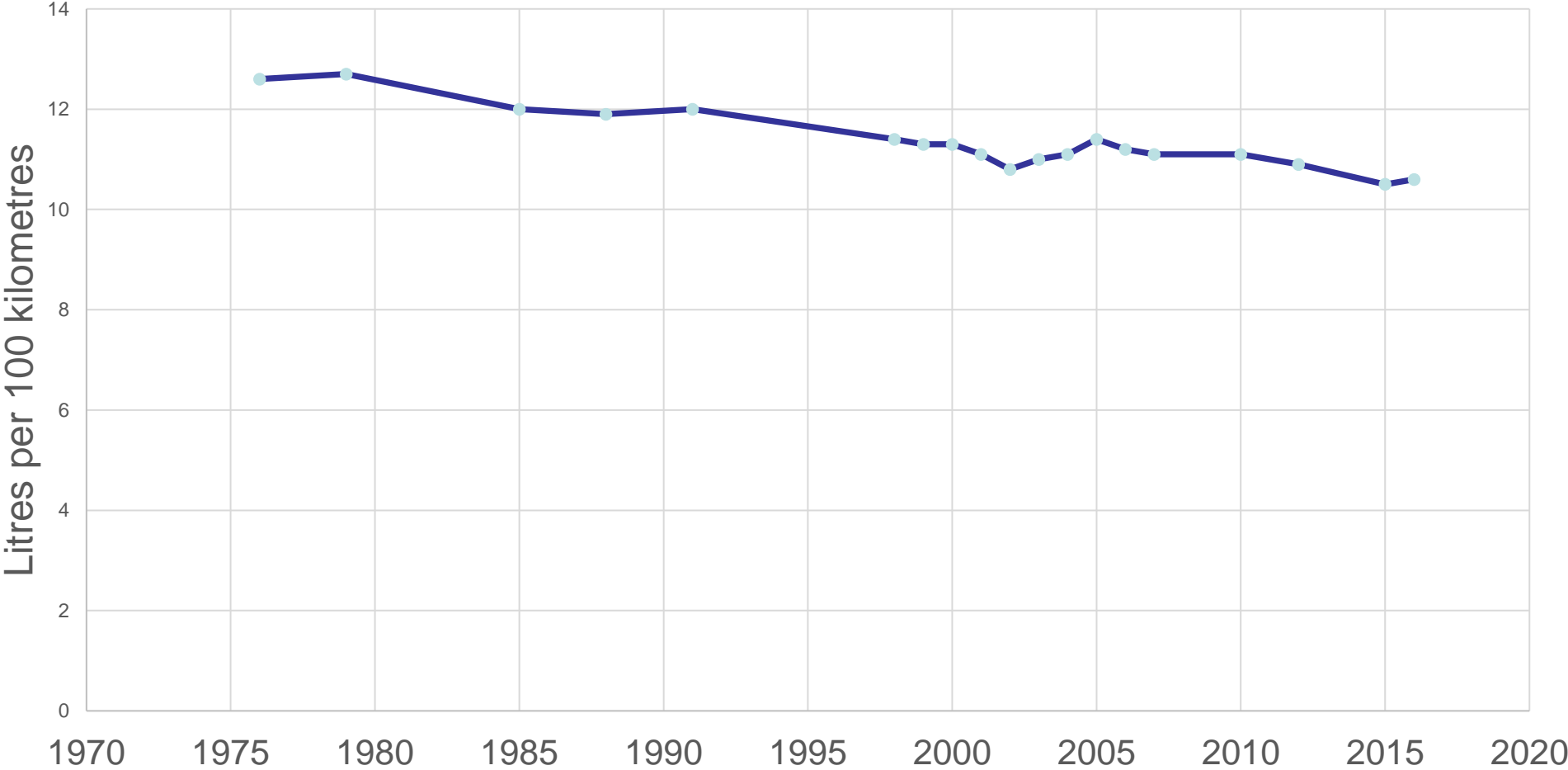
— Transport - Trend

# Australian emissions patterns

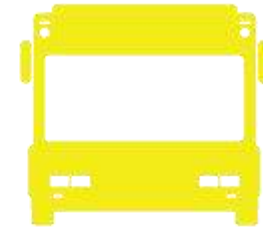




# Historical changes to passenger car fuel consumption (litres/100km)



Source: ABS



Mixed Traffic

Regular Bus

Cyclists

Pedestrians

BRT  
(Single Lane Bus)

Light Rail

BRT  
(Double Lane Bus)

Heavy Rail  
(e.g. Hong Kong)

Suburban Rail

**2,000**

**9,000**

**14,000**

**19,000**

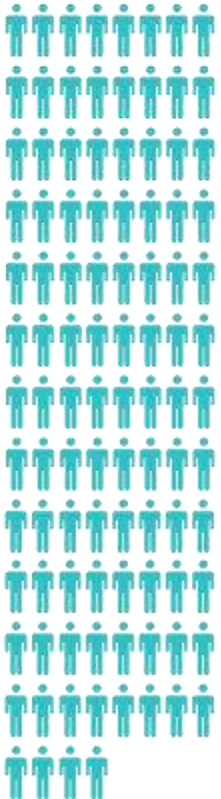
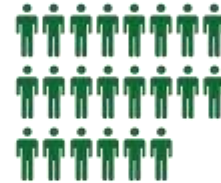
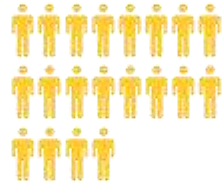
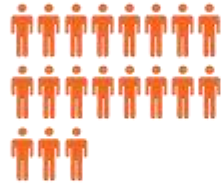
**20,000**

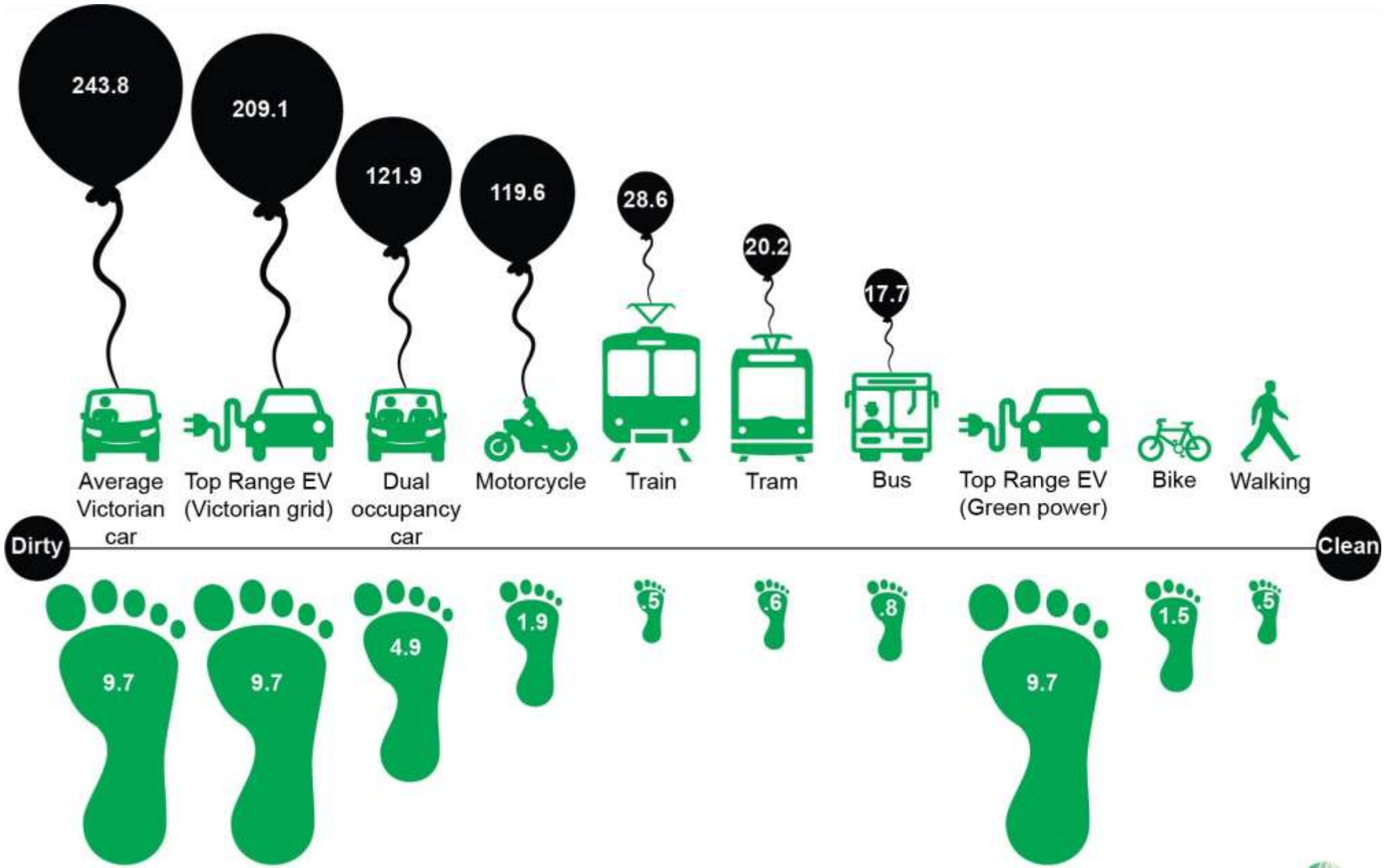
**22,000**

**43,000**

**80,000**

**100,000**





= Grams of CO<sub>2</sub> per person kilometre travelled

= Space in square metres required per occupant



# What does a 50% reduction in emissions by 2030 look like?













# Pathways to lowering transport emissions

**Fuel efficiency**  
Through conversion to more efficient vehicles (e.g. pure EV)

**Mode change**  
Shifts from car to more efficient modes (e.g. e-bike)

**Decrease VKT (without mode change)**  
People making shorter car trips

**Trips avoided**  
Choosing to travel less through trip chaining, telecommuting etc.





*'I use my e-bike to commute because I don't need special clothing or showers and I don't get as sweaty on hills or as tired from the ride'*

**- E –bike owner**

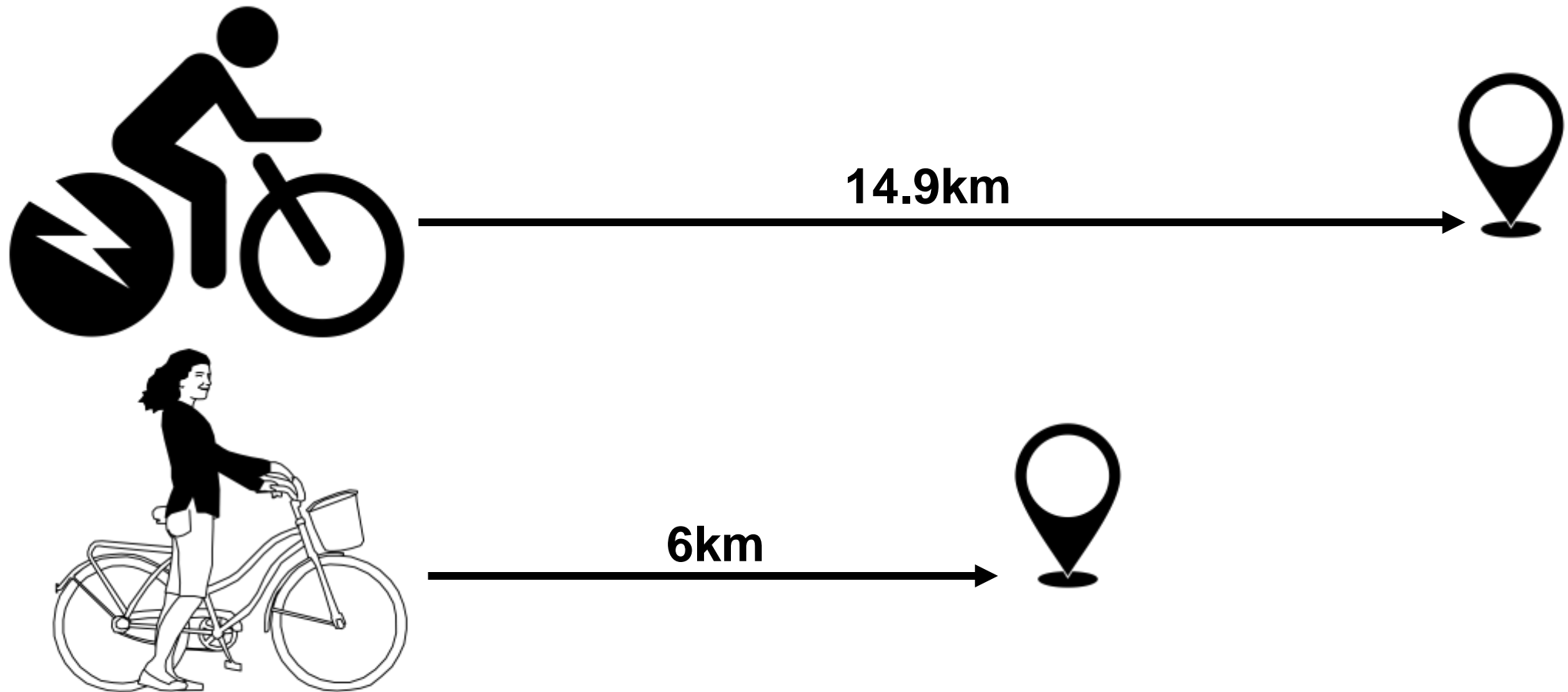
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# E-bike trips are longer





**Electric vehicles**

# Electric vehicles – compared to a few years ago

- Cheaper
- Longer battery life
- Wider variety of models
- Increased charging opportunities
- More government agencies have strong targets for zero emission fleets





# Ingredients for success



Awareness and  
social norms



Range



Charging  
infrastructure



Variety of  
vehicles

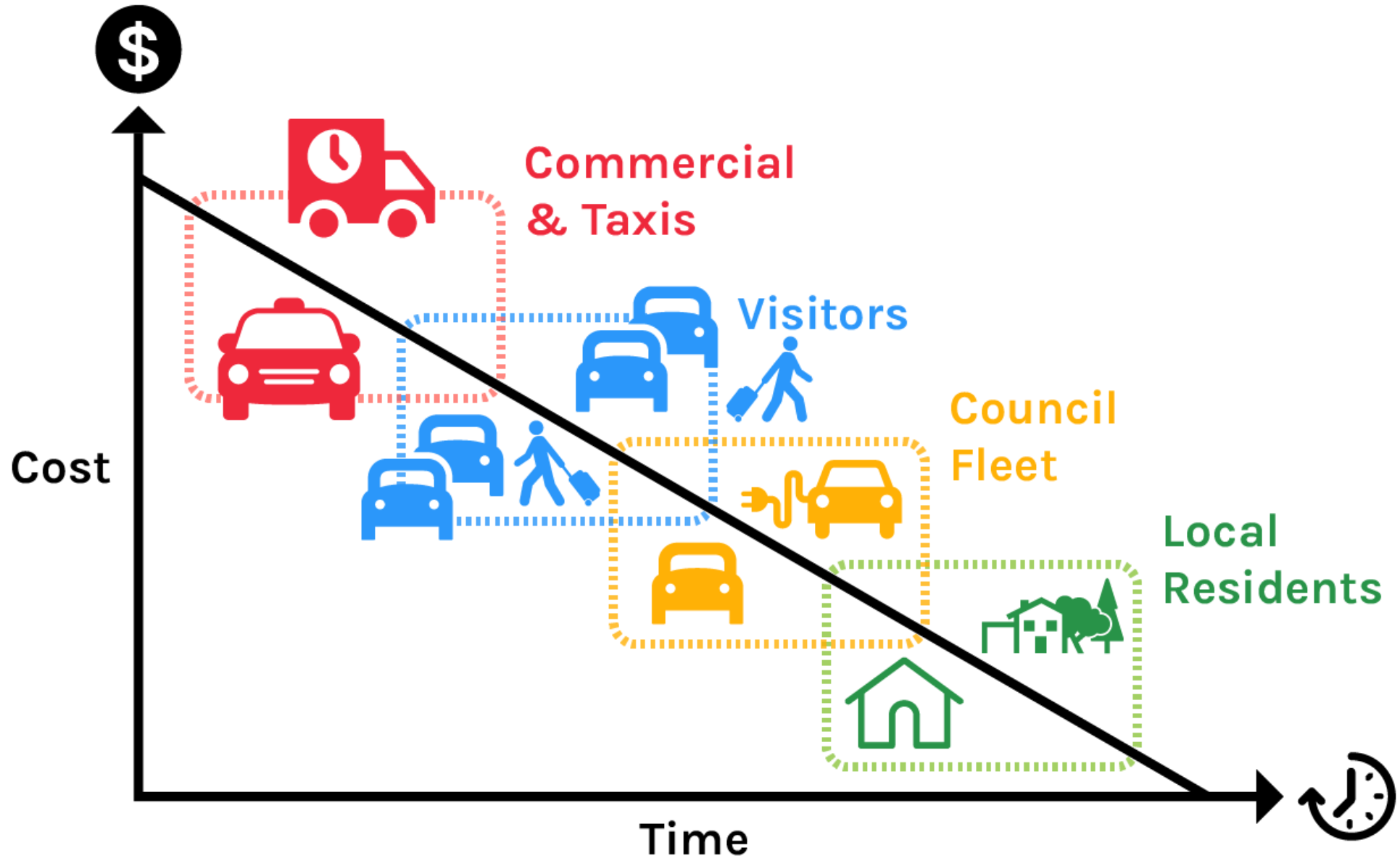


Cost  
comparability

**The number of EV  
charging stations in  
Australia jumped 64% in  
2018**







# Last mile freight











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# Thank you

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