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Vehicle Electrification Impacts

LowCVP Energy2017 Seminar, Wednesday 11th October 2017

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ETI10 TEN YEARS
OF INNOVATION
2007 – 2017

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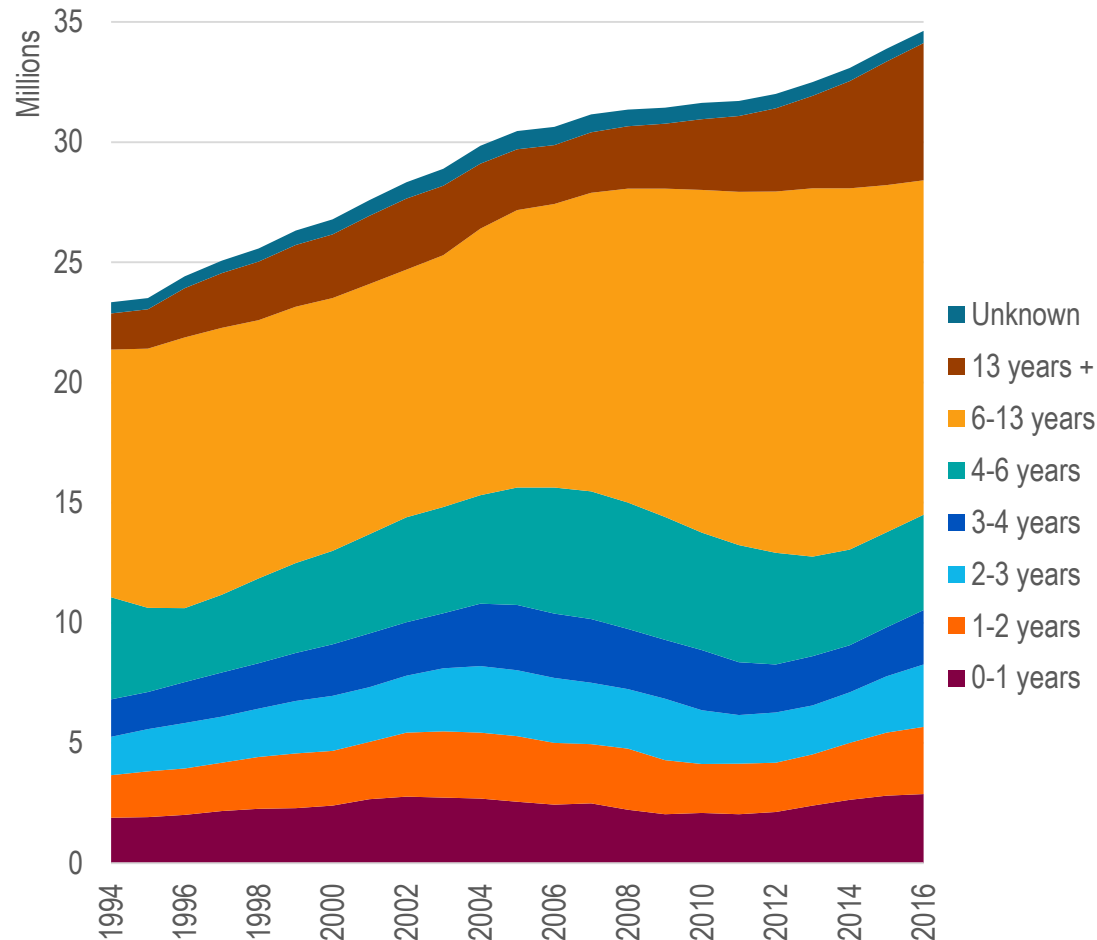
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Light Vehicles in the UK

Light vehicle fleet population and age distribution



30m

There is a total parc of over 30m cars

42.6% ↑

There was a 42.6% increase in the number of vans in the parc (2003 – 2016)

4.6m ↑

Between 2003 and 2016 the overall parc grew by 4.6 million cars

13.9yrs*

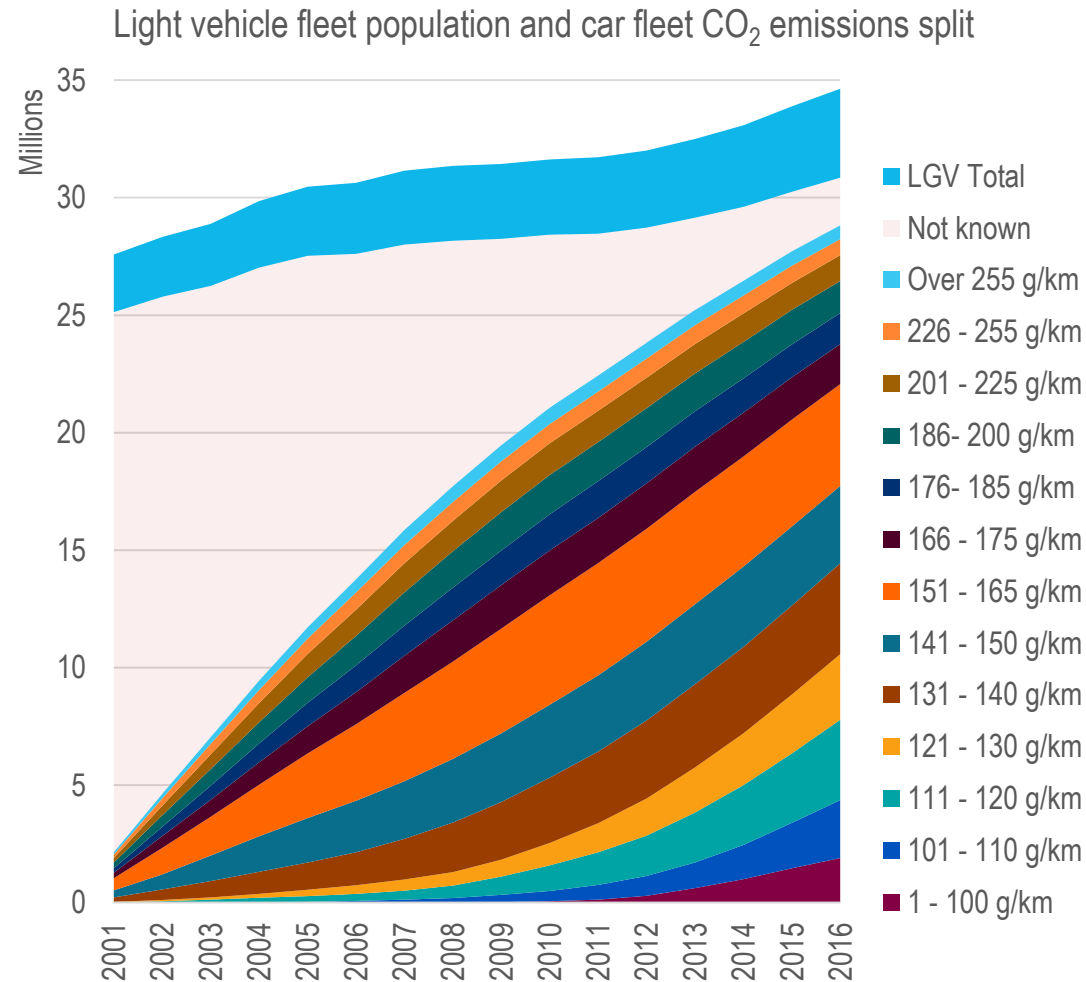
The average life of a car on the road has now exceeded 13 years

Based on DfT vehicle statistics (2017)

*average car scrappage age in 2015 (SMMT, 2017)



Light Vehicles in the UK



16%

Light vehicles contribute around 16% of CO₂ emissions

1/3

Only around a third of UK car mileage is in urban areas. Over two thirds of UK mileage is on motorways and major “A” roads

5%

The cost in 2050 for a low carbon vehicle system is only about 5% more expensive than a do nothing approach – but transition costs are significant

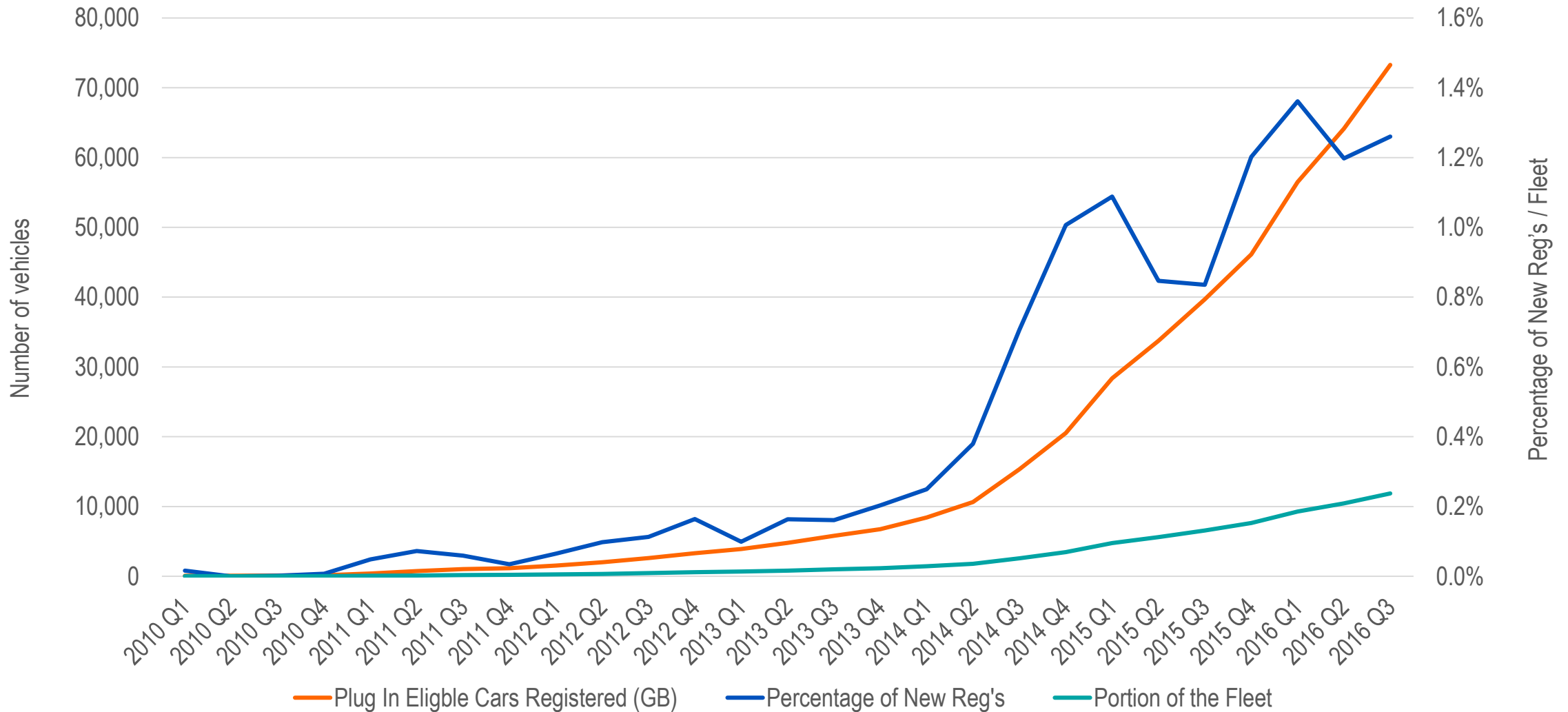
400bn

400 billion person-miles are travelled by car each year – 10x more than rail and 20x more than bus/coach

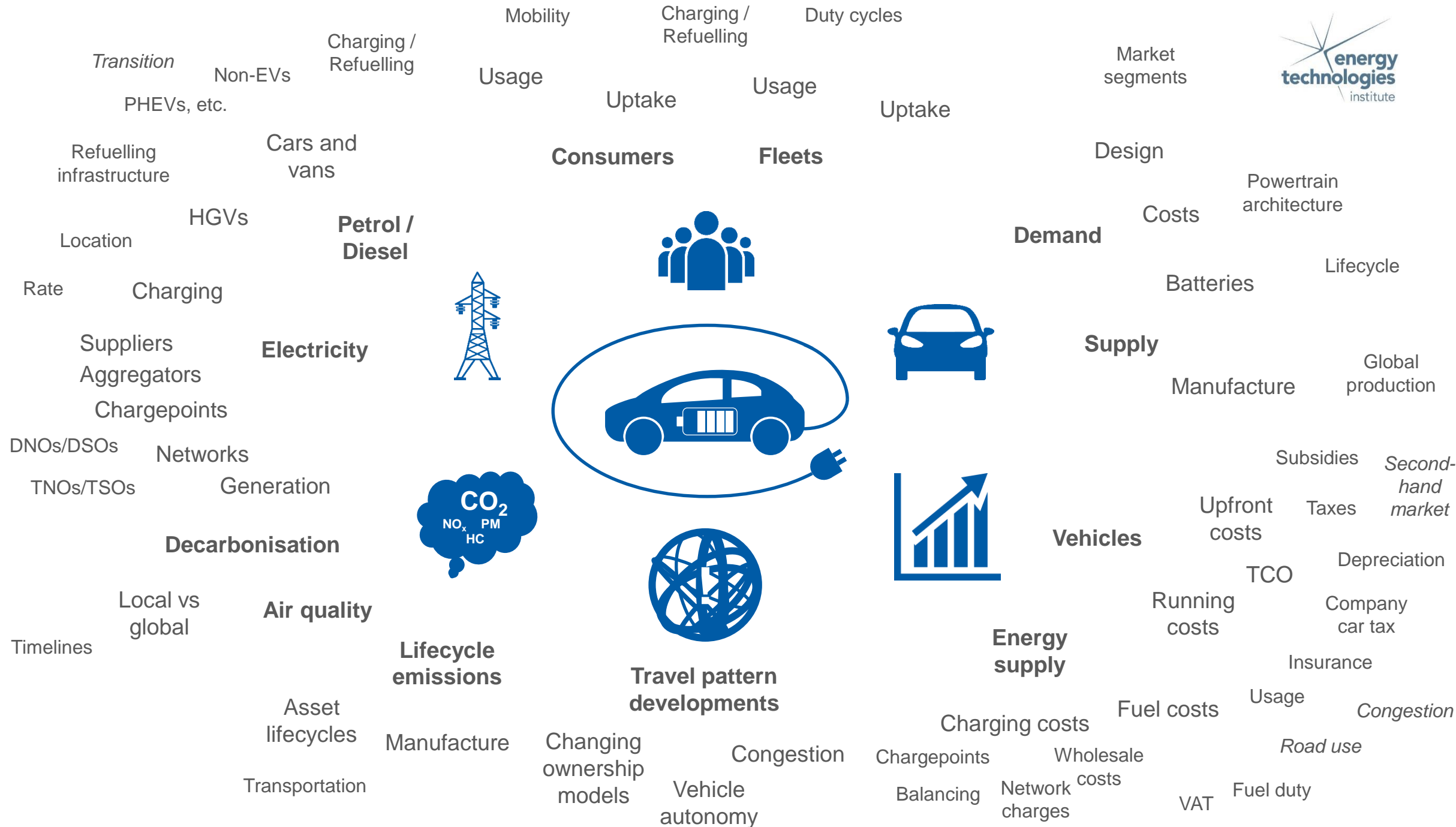
Based on DfT vehicle statistics (2017)



Plug-in vehicle sales

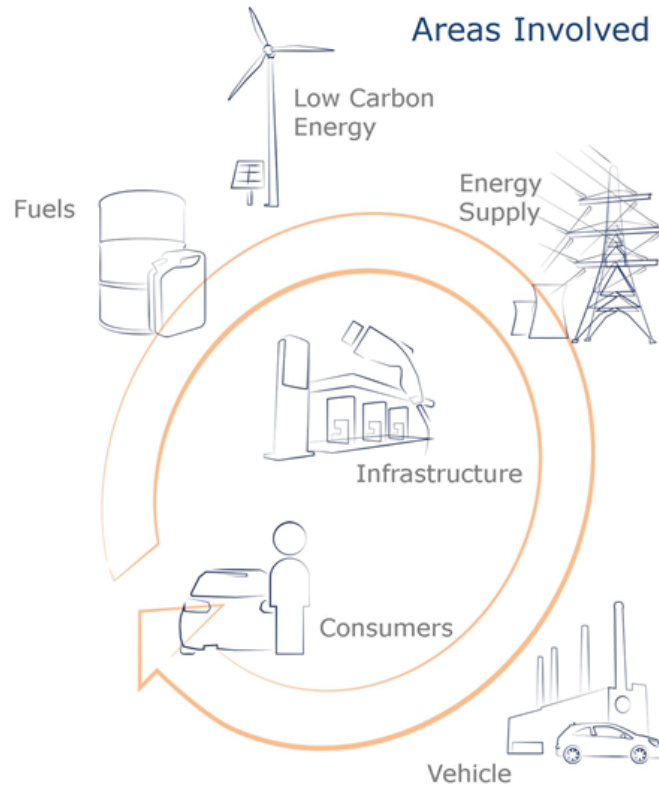


Based on DfT vehicle statistics (2017)





Consumers, Vehicles and Energy Integration (CVEI) project



- **£5m, 2.5 year project** to address the challenges involved in transitioning to a secure and sustainable low carbon vehicle fleet
- Aims to understand changes to market structures and energy supply systems to support high deployment of plug-in vehicles, the technical implications of any changes and how people might respond to them
- It will examine how tighter *integration* of vehicles with the energy supply system can benefit:
 - vehicle users
 - vehicle manufacturers
 - organisations throughout the energy supply chain
- [The outputs are being made available to:](#)
 - help inform UK and European government policy
 - help shape energy and automotive industry products



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