



Office for
Low Emission
Vehicles

EV Infrastructure in the UK

Rosalind Marshall, Head of Infrastructure





Overview

1. UK Government ambition and OLEV

2. UK Infrastructure state of play

3. How we got there

4. Current offer and look ahead





The Office for Low Emission Vehicles – a focussed cross-government team



Greg Clark - BEIS



Chris Grayling- DfT



Claire Perry- BEIS

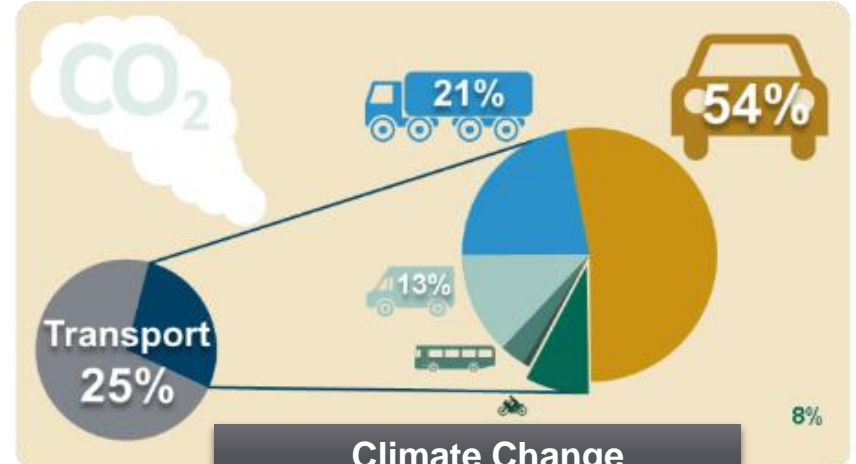


Jesse Norman- DfT





Jobs and growth



Climate Change



Air Quality



Energy Security



We have a clear long term goal and significant funding.....



“Our ambition is for Britain to lead the world in electric vehicle technology and use. We want almost every car and van to be zero-emission by 2050 – and will invest £600 million by 2020 to help achieve it.”

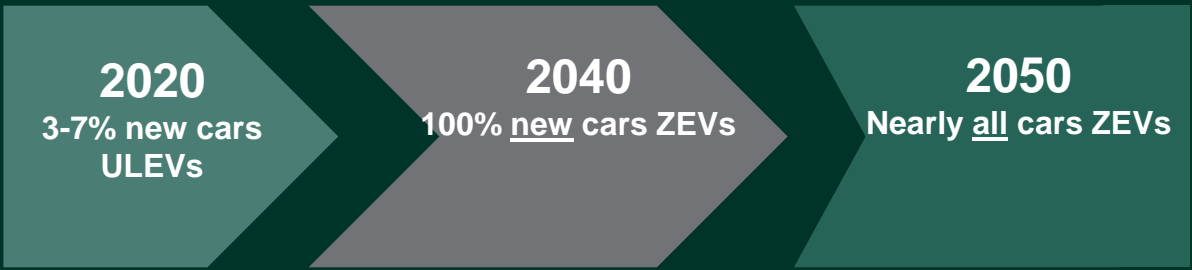
Conservative Party Manifesto 2017

....but how do we get there?



£1bn+ 2015-2020 ULEV PROGRAMME

Plug-in Car Grants (£££m+)	Domestic Chargepoints (££m)	Research & Development (£££m+)
Plug-in Van/Truck Grants (££m)	Workplace Chargepoints (££m)	Go Ultra Low campaign (£m)
Plug-in Motorcycle Grants (£m)	Highways England Rapids (££m)	Go Ultra Low Cities (££m)
Plug-in Taxi Grants (££m)	Taxi Infrastructure Grants (££m)	Zero / Low Emission Buses (£££m)
Hydrogen FCEV Grants (£m)	Hydrogen Stations (££m)	London (££m)
		Public Sector Fleet support (£m)

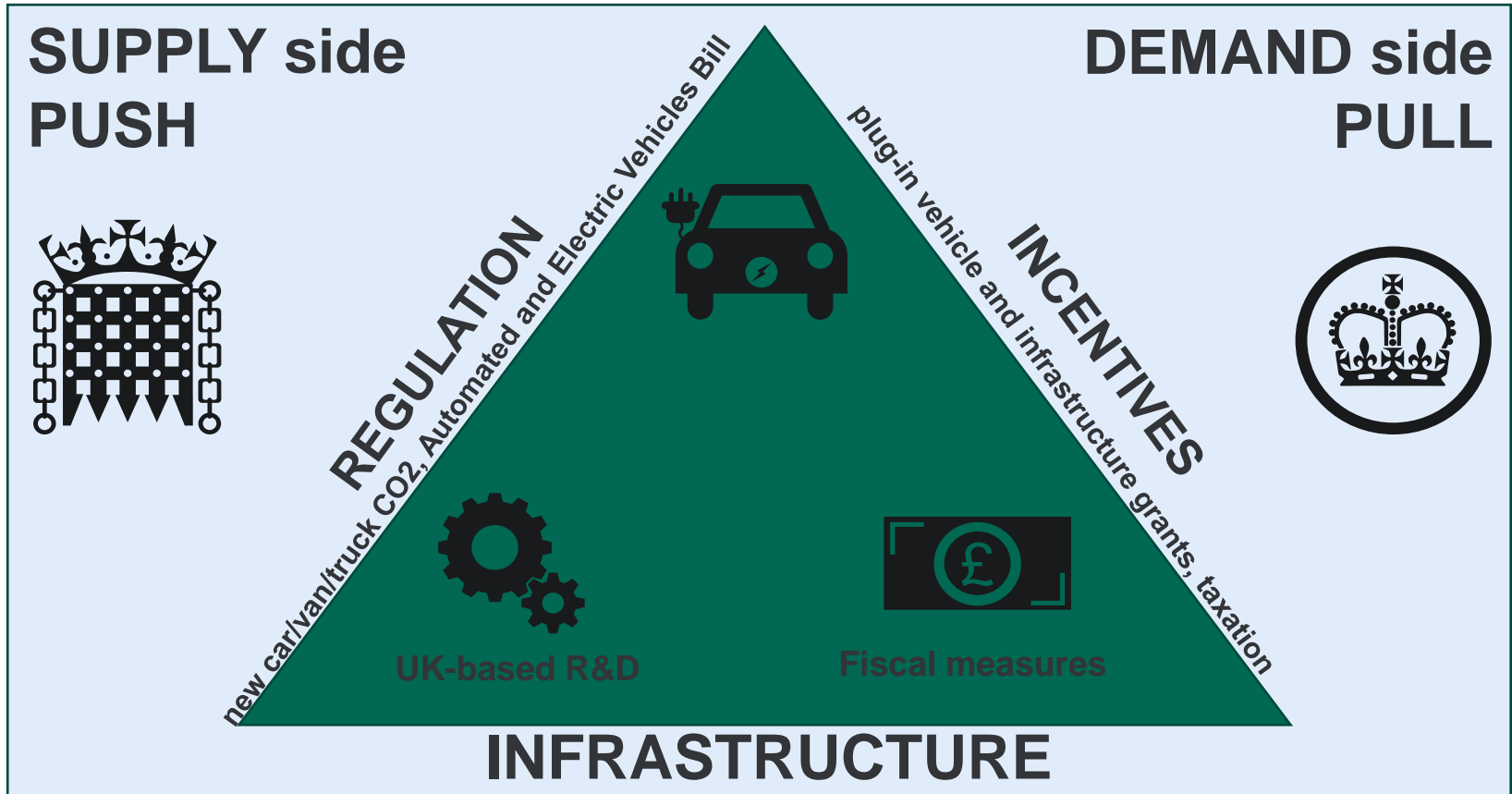


£££m+ Fiscal Incentives (HMT)

+ £500m Advanced Propulsion Centre (BEIS)

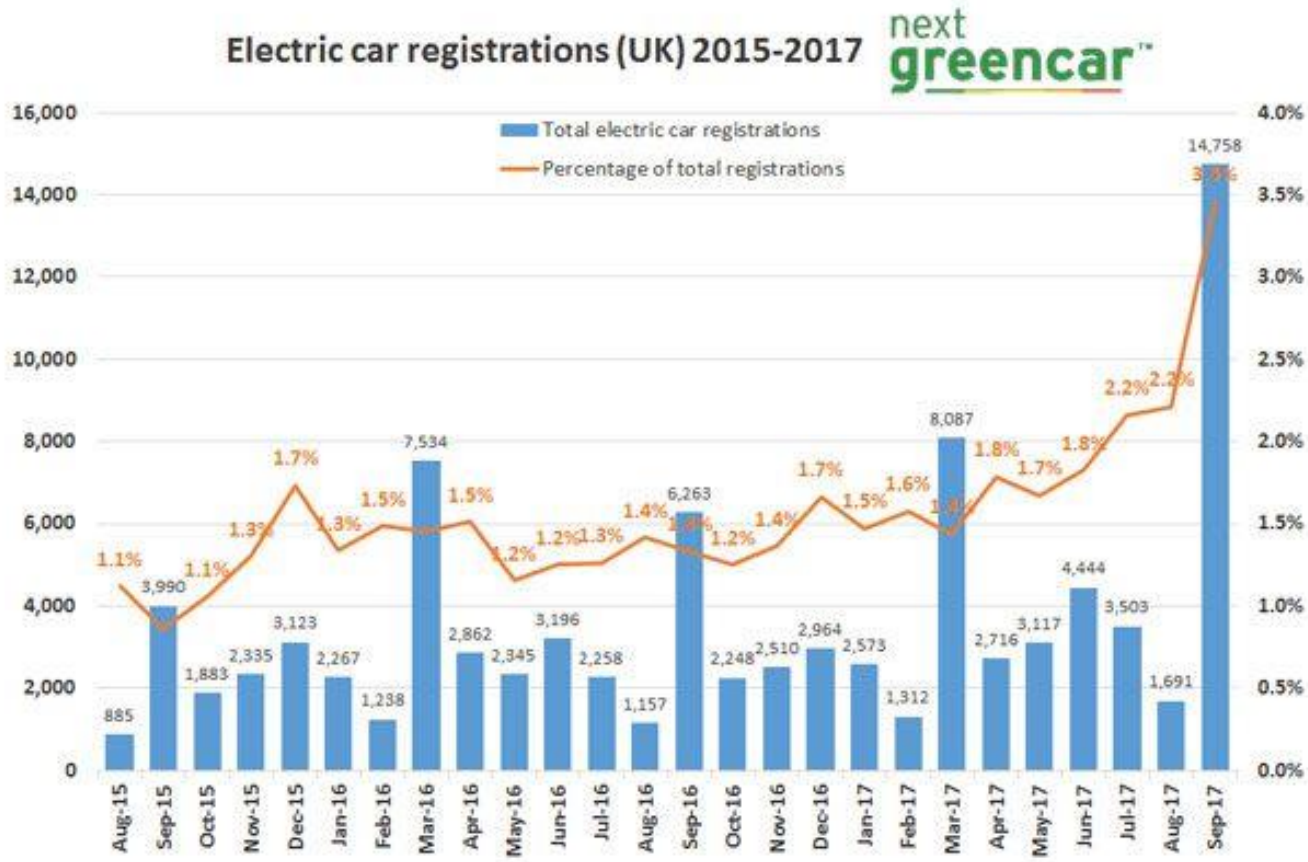


Infrastructure as keystone to rEVolution





Good progress is being made...





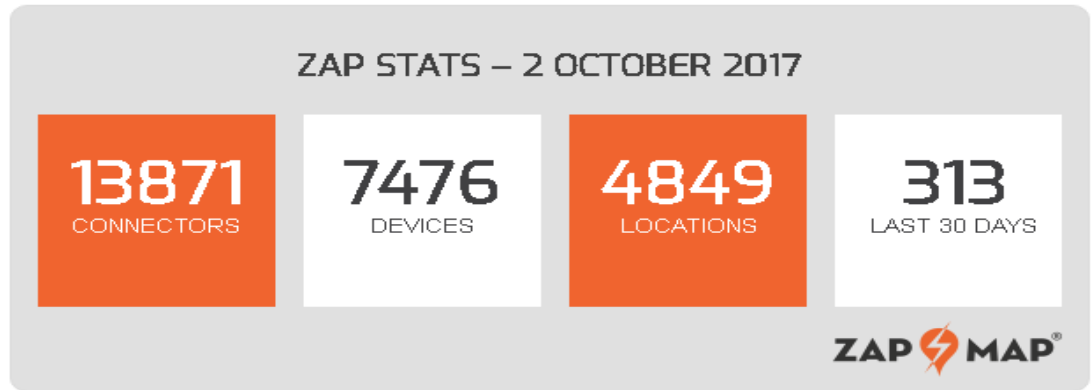
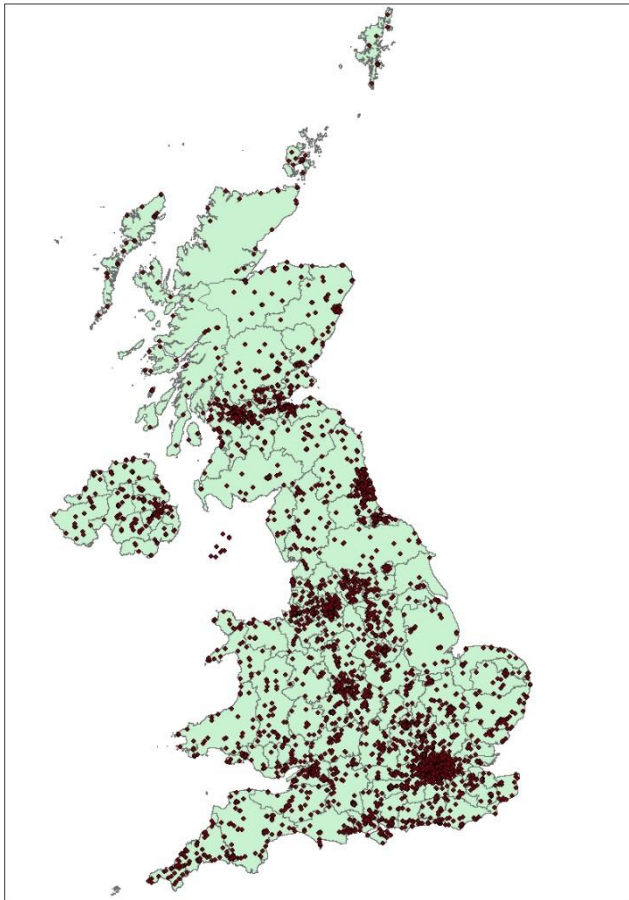
Why support EV Infrastructure?

- ▶ Remove infrastructure barriers preventing uptake of EVs across the UK
- ▶ UK to host a reliable and accessible network with coverage that responds to the needs of EV drivers
- ▶ Encourage the majority of private use charging at home and/or at work
- ▶ Ensure effective use of the existing electricity supply and for EV charging to integrate effectively into the development of a smart electricity grid.
- ▶ Support the normalising of EV technology through its visibility and performance of the network
- ▶ UK competitiveness and ensuring UK remains ahead internationally

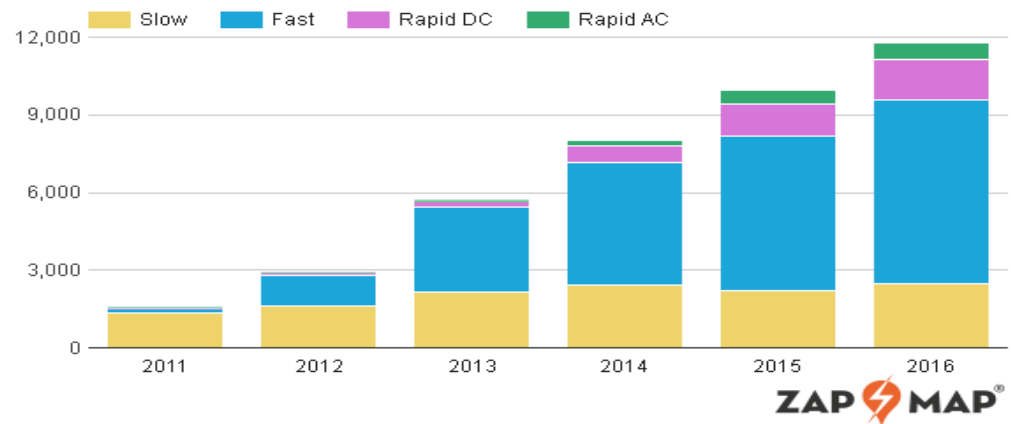




Where are we now?



CHARGING CONNECTORS BY TYPE: ZAP-MAP, 2011-2016





How did we get there? The beginning...

Phase 1

- **Plugged In Places 2009-2014** - £19m
- 8 regional projects
- Trial early technology development, back office systems and data analysis
- SMEs and Local Authorities: Novation





Lessons learned....

Phase 2

- **National Infrastructure Grant Schemes 2014-16 - £12.8m**
 - LA Rapids – 250 rapids
 - Public Sector Estate and train stations – 580 chargepoints
- On-Street Residential, and Domestic Recharging Scheme
- + EU funding (Rapid Charger Network)
- PAYG and data provision





What do we do now?

Phase 3

- Financial: more targeted approach
- Regulatory / policy levers





Targeted financial grant support

Workplace Charging Scheme

£300 per workplace socket



Highways England

£15m – Rapid DC every 20 miles on the English SRN Network



Electric Vehicle Homecharge Scheme

£500 towards a home chargepoint
+85K installs



On-Street Residential Scheme

£7,500 per chargepoint for LAs

Technological innovations



Go Ultra Low Cities

- Milton Keynes
- Bristol
- London
- Nottingham
- Derby
- Dundee, Oxford, York, North East





Go Ultra Low Cities – shining lights in UK EV uptake.

Bristol is a Go Ultra Low City



Opening **3 High Occupancy Vehicle lanes** to ULEVs

4 rapid charging hubs in key locations with up to **30** chargers

Proposals for a **Clean Air Zone**





Milton Keynes is a Go Ultra Low City



Opening **20k** parking bays for free to all ULEVs

Use of **all** bus lanes – same priority at lights as buses

EV Experience Centre in city centre





London is a Go Ultra Low City



New chargepoint delivery partnership providing single port of call

8 'Neighbourhoods of the Future' to normalise ULEVs

Car Club strategy to have **1m** members by 2025





Nottingham is a Go Ultra Low City



ULEVs can use **13.6 miles** of bus lanes in low emission corridor through city centre

Up to **195** new public fast chargers

ULEV Business support package including **'try before you buy'** option







Changing the regulatory framework



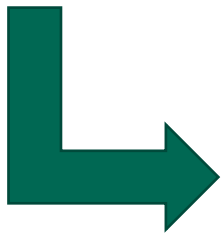
EU Alternative Fuels Infrastructure Directive

Recently been transposed into UK law



Automated and Electric Vehicles Bill

Announced in Queen's Speech 2017



Access & Connection



Information



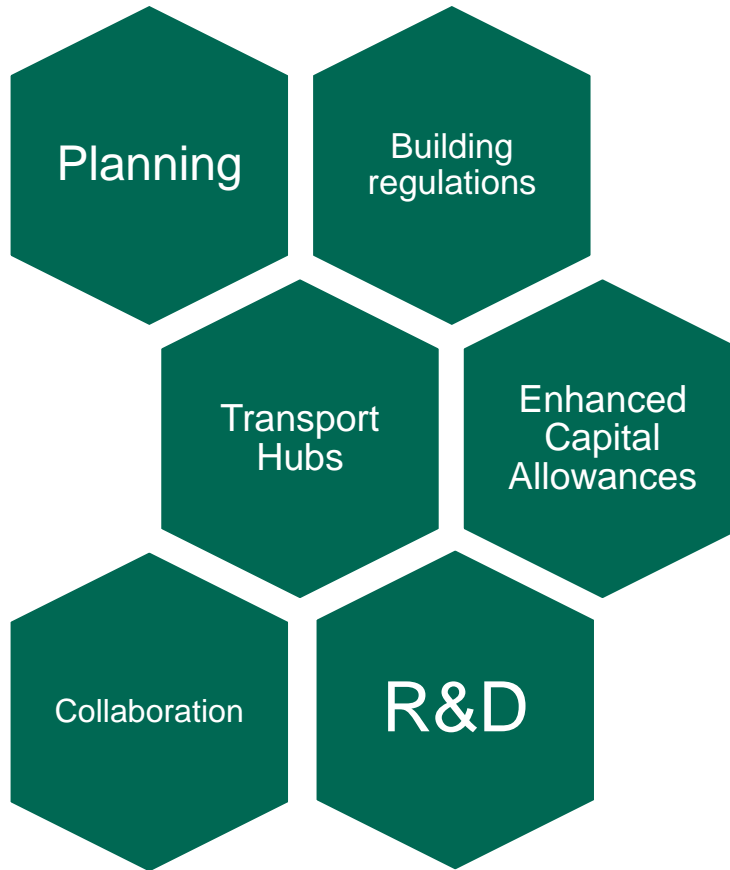
Fuel retailers/MSAs



Smart capability



... And wider policy levers





Strategic challenges remain...

- Future user behaviour
- Evolving business models
- Emerging technologies
- Keep the lights on!
- Not one size fits all





Thank you!

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