

Policy to encourage ultra low emission vehicle uptake in the UK

英国鼓励超低排放车辆的政策经验交流



Office for
Low Emission
Vehicles

Richard Bruce



International Workshop on Technology and Policy Solutions for Energy-efficient and Low Carbon Light-duty Vehicle Fleet: The China Perspectives

June 4-5 2014

1. **POLICY DRIVERS** 政策驱动
2. **UK POLICY CONTEXT** 英国政策环境
3. **UK GOVERNMENT ACTIONS** 英国政府行动
4. **PROGRESS** 进展
5. **ISSUES** 问题
6. **NEXT STEPS** 下一步计划



1. POLICY DRIVERS 政策驱动



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Policy interests 政策偏好

1.



**Inward investment,
growth, jobs**

对内投资、增
长、工作

2.



Carbon

碳排放

3.



**Air quality (£8-
£17bn)**

空气质量（每年
80-170亿英镑）

4.



**Energy
security**

能源安全



2. UK POLICY CONTEXT

英国政策环境



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UK – key numbers 英国-主要数据



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>50%
of new car sales
are to fleets

>50%的新车销售进入车队

>60%
Houses with off-
street parking

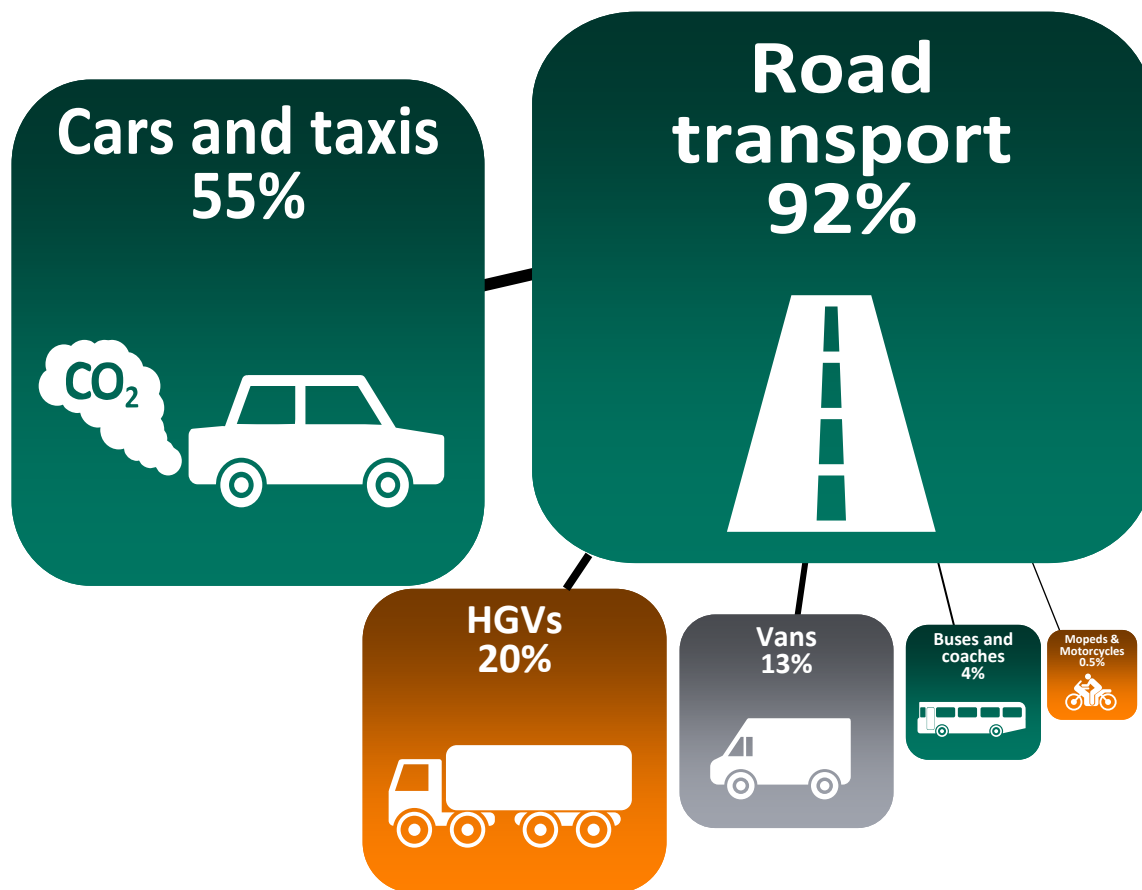
>60% 住户拥有非临街停车位

8.5 miles
Average car
journey length

汽车年均行驶里程为 8.5 英里



UK Transport and CO2 英国交通与CO2



- Transport makes up 25% of UK CO2 emissions
- 交通运输的CO2排放占英国的25%
- 92% of UK transport emissions are from road transport
- 92% 的交通运输排放来自于道路交通



UK Transport and air quality #1

英国交通与空气质量 #1



6
months

Average reduced
life expectancy
from air pollution
in UK

60%

of the NO_x in the
UK's air quality
hot spots comes
from road traffic

£8-17bn

Annual cost to
UK from man-
made fine
particulate
matter

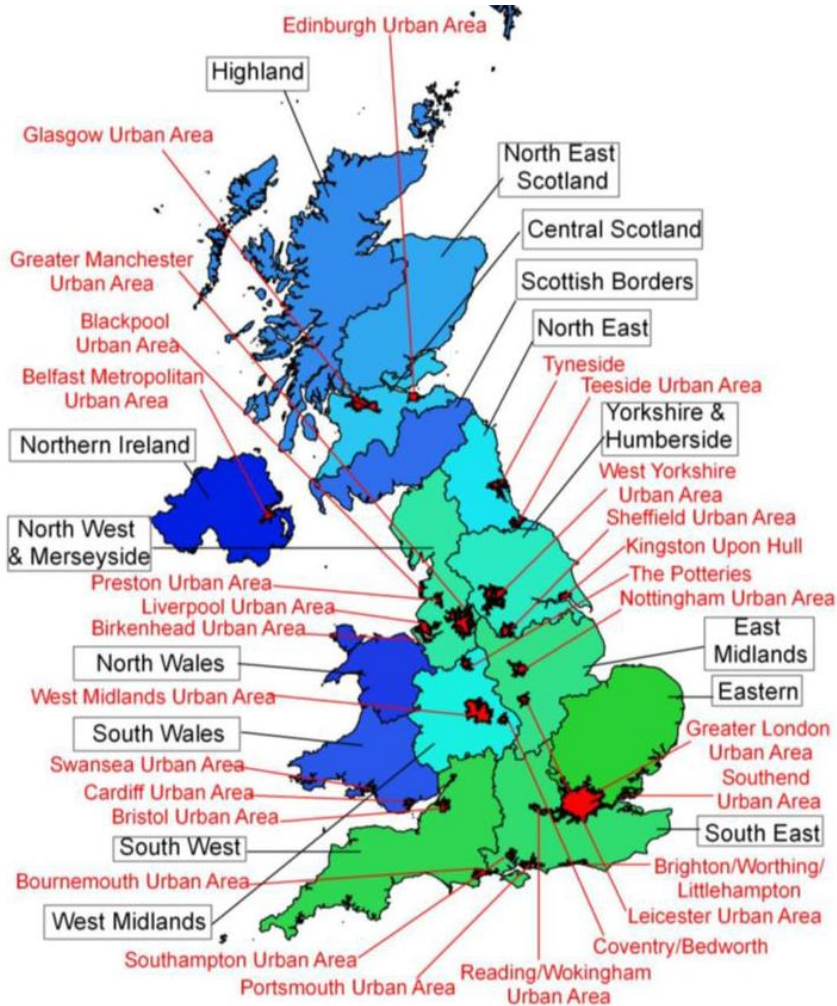
World Health Organisation has
classified diesel exhaust fumes as
carcinogenic

- 英国的空气污染是人均寿命减低6个月
- NO_x的高排放区有60%来自于道路交通
- 每年人造颗粒物的总成本高达80-170亿英镑
- WHO将柴油尾气列为致癌物质



UK Transport and air quality #2

英国交通与空气质量 #2



- Widespread non-compliance with EU limit values for NO_x
- NO_x不能达到欧盟标准限值为普遍现象
- Concern over PM levels
- 为PM排放水平担忧



3. UK GOVERNMENT ACTIONS

英国政府行动



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What is OLEV? OLEV是什么?



Office for Low Emission Vehicles 低排放车办公室

R&D

研发



Incentives

动机



Energy issues

能源问题



Comms

商业



Infrastructure

基础设施



Supply Chain

供应链



UK H₂ Mobility



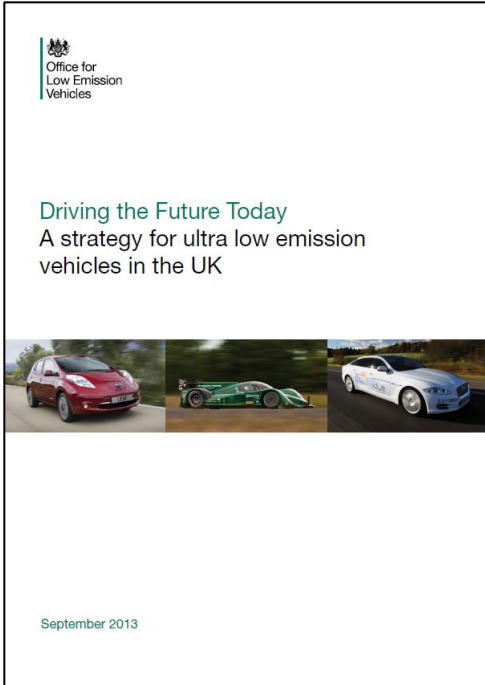
Government commitment 政府承诺



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One of the longest, most
comprehensive packages of
support in the world...

世界上最长最全面的支持
政策之一...



£400m OLEV support to
2015

£400m OLEV的资金支持
至2015年

+

+

£500m for advanced
propulsion centre

£500m 先进推动中心

+

+

£500m OLEV support to
2020

£500m OLEV的资金支持
至2020

+

+

£100m fiscal incentives to
2020

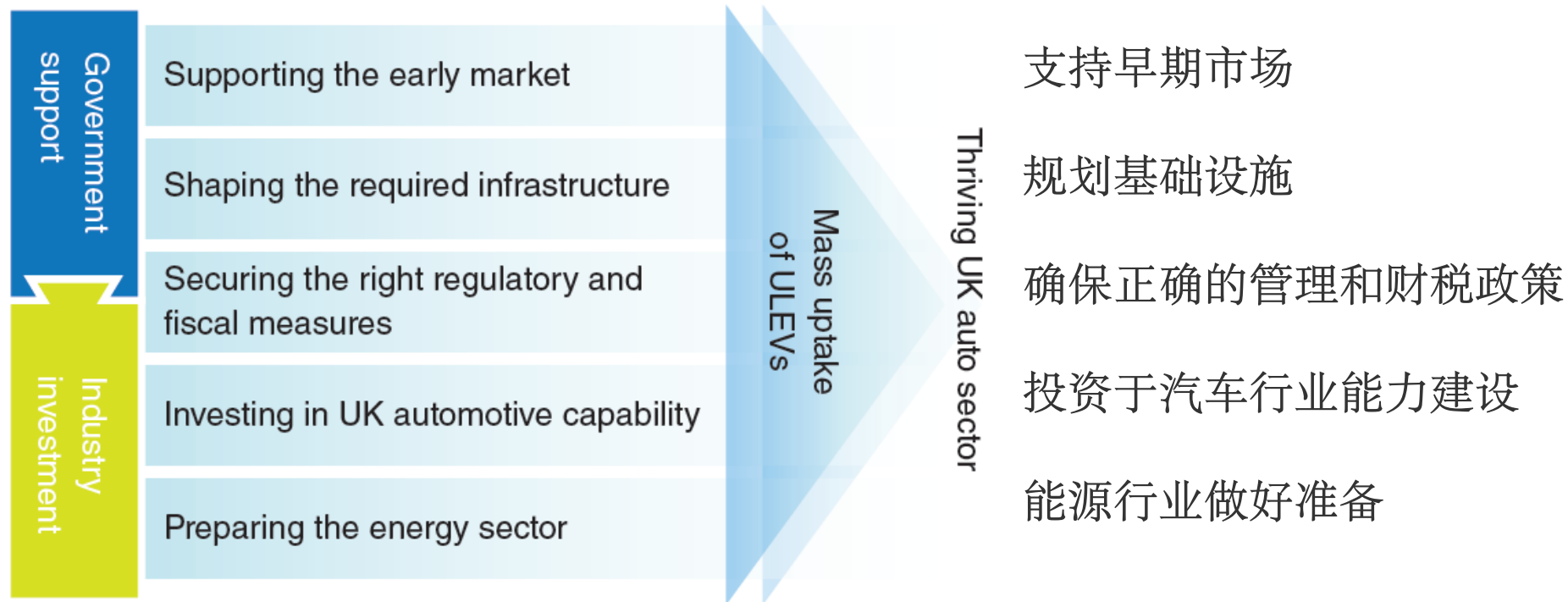
£100m 财政激励至2020
年



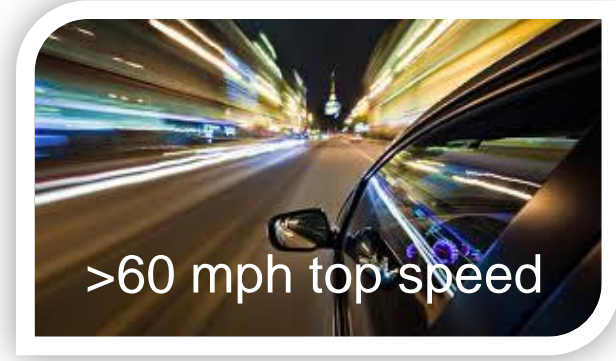
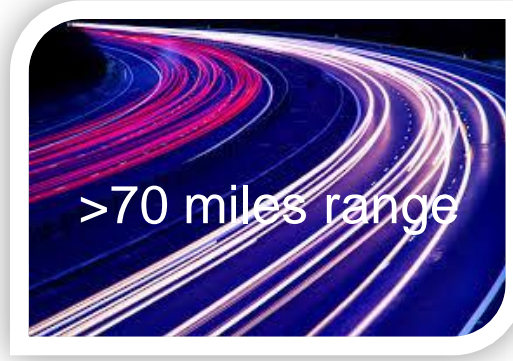


Working with industry - 5 workstreams

与行业合作- 5条工作主线



Measures#1 – plug-in grants 方法#1- 插电奖励



**25% off an eligible car
(up to £5,000)**

合格轿车降价25%
(最高限额£5,000)

**20% off an eligible van
(up to £8,000)**

合格商务车降价20%
(最高限额£8,000)



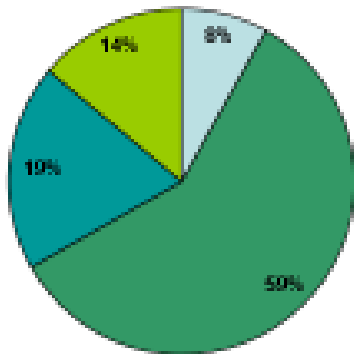


Measures#2 – Infrastructure [i] 方法#2- 基础设施

Plugged in Places (PIP) 2009-2014 充电地点 2009-2014

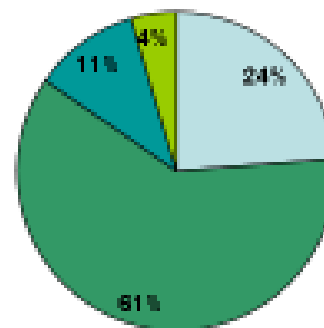
- 8 regional pilots. Up to £30m. Learning programme.
- 8个试点地区。高达3000万英镑。试点项目
- >6,000 chargepoints, different business models,
- 6000多个充电点，不同的商业模式
- Leveraged in private sector investment, ~ 5,000.
- 与私人投资相平衡，约5000个
- Used learning to develop national schemes
- 通过学习发展全国战略

Location of PIP Chargepoints
(projected to end June 2014)



Public On Street Public Parking
Private Workplace Domestic

PIP Publically Accessible Chargepoints by Type
(projected to end June 2014)



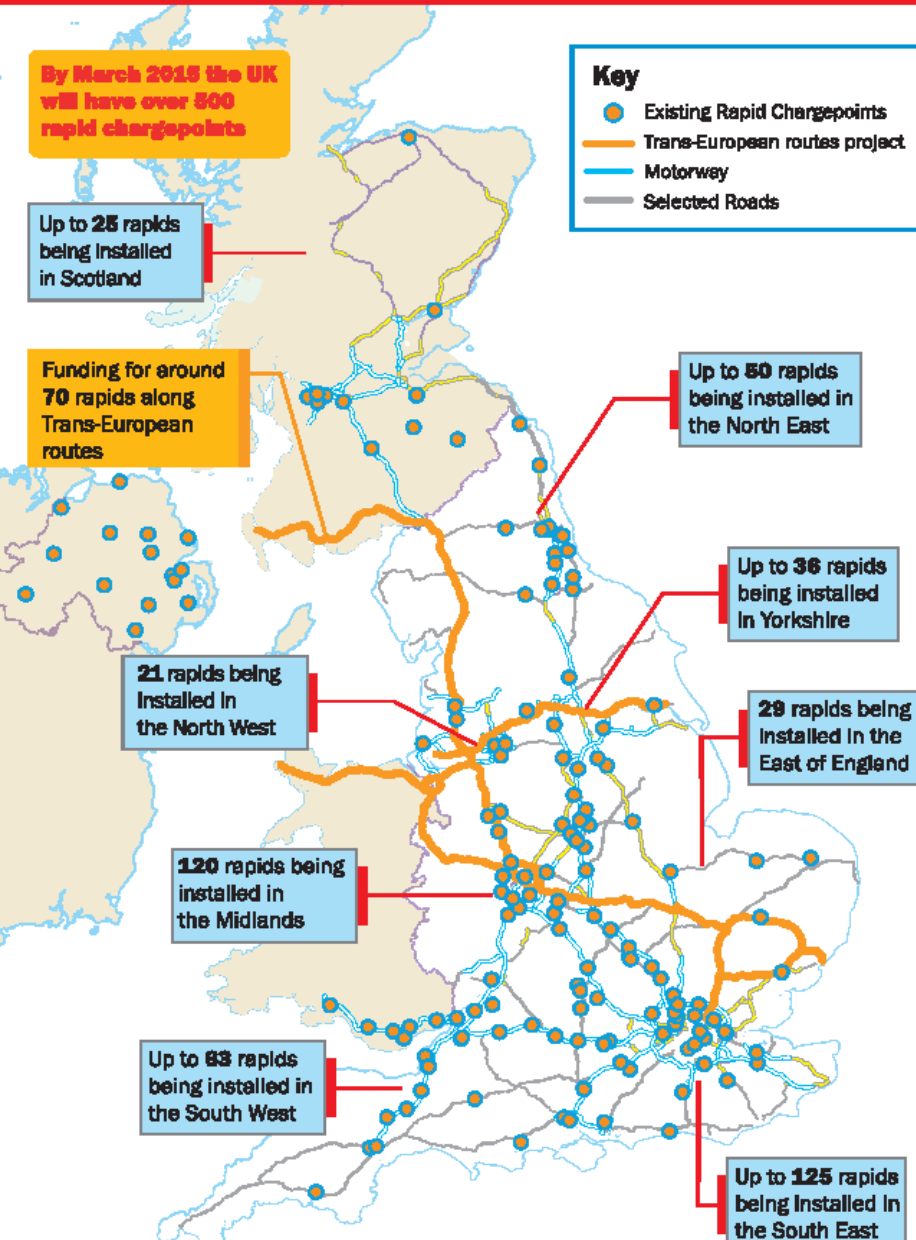
3kw 7kw 20kw 50kw



Measures#2 – Infrastructure [ii] 方法#2- 基础设施



The UK's emerging rapid charger network



- **500+** rapid chargers by April 2015 – best network in Europe
- 500多个快速充电站，2015年4月之前，欧洲最好的充电网络
- **1,500** bids for 7kw chargepoints on public sector sites
- 7kw的公共充电点收到1500个竞标
- **400** chargepoints (7kw or 22kw) in train stations
- 火车站有400个充电点（7kw或22kw）
- **10,000+** domestic grants claimed
- 已授权10000多个本地充电站



Measures#3 – Fiscal [i]: road tax 方法#3- 道路税

| Cars registered on or after 1 March 2001 based on CO ₂ emissions and fuel type | | Petrol Car (Tax Class 48) and Diesel Car (Tax Class 49) | |
|---|--|---|------------|
| Bands | CO ₂ emission figure (g/km) | 12 months | Six months |
| Band A | Up to 100 | £0 | - |
| Band B | 101 to 110 | £20 | - |
| Band C | 111 to 120 | £30 | - |
| Band D | 121 to 130 | £110 | £60.50 |
| Band E | 131 to 140 | £130 | £71.50 |
| Band F | 141 to 150 | £145 | £79.75 |
| Band G | 151 to 165 | £180 | £99 |
| Band H | 166 to 175 | £205 | £112.75 |
| Band I | 176 to 185 | £225 | £123.75 |
| Band J | 186 to 200 | £265 | £145.75 |
| Band K* | 201 to 225 | £285 | £156.75 |
| Band L | 226 to 255 | £485 | £266.75 |
| Band M | Over 255 | £500 | £275 |

+ £0 Fuel duty and Enhanced Capital Allowances

燃料税与强化资本投资津贴为零

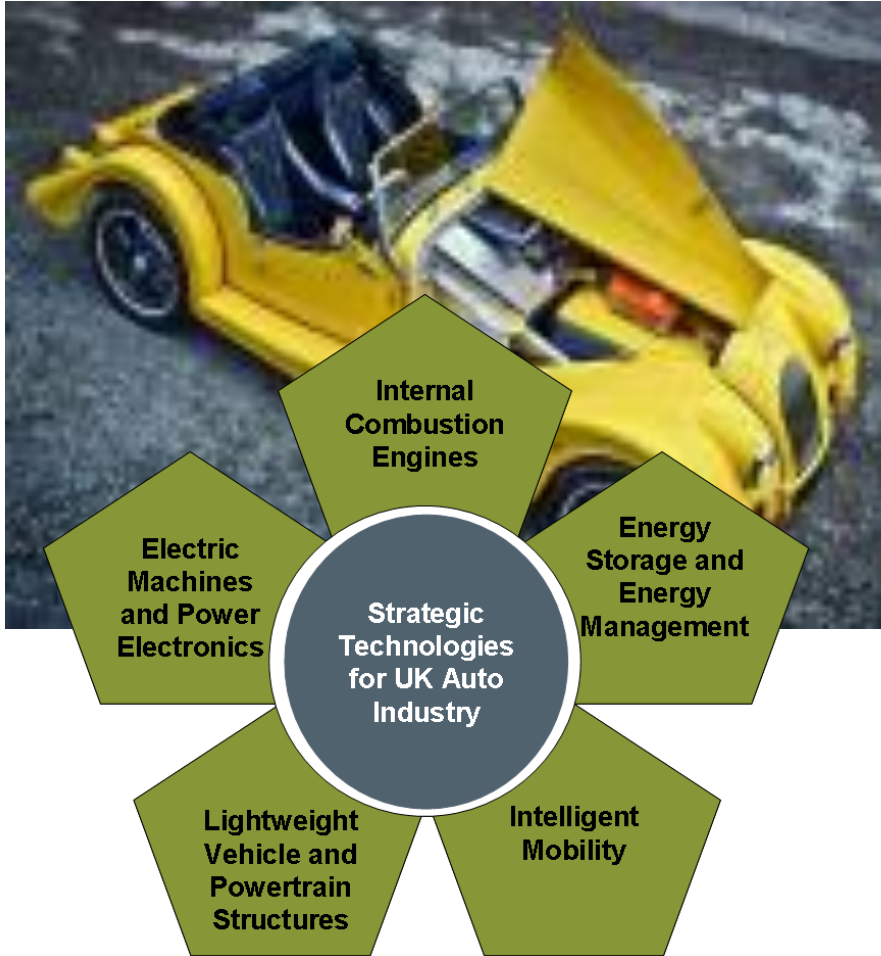
Measures#3 – Fiscal [ii]: company car tax

方法#3- 公司车辆税

| Vehicle CO2 g/km | 2014-15 %BIK Rate | | 2015-16 %BIK Rate | | 2016-17 %BIK Rate | 2017-18 %BIK Rate | 2018-19 %BIK Rate |
|------------------------|----------------------|--------|----------------------|--------|----------------------|----------------------|----------------------|
| | Petrol | Diesel | Petrol | Diesel | All cars | All cars | All cars |
| 0 | 0 | 0 | 5 | 8 | 7 | 9 | 13 |
| 1-50 | 5 | 8 | 5 | 8 | 7 | 9 | 13 |
| 51-75 | 5 | 8 | 9 | 12 | 11 | 13 | 16 |
| 76-94 | 11 | 14 | 13 | 16 | 15 | 17 | 19 |
| 95-99 | 12 | 15 | 14 | 17 | 16 | 18 | 20 |
| 100-104 | 13 | 16 | 15 | 18 | 17 | 19 | 21 |
| 105-109 | 14 | 17 | 16 | 19 | 18 | 20 | 22 |
| 110-114 | 15 | 18 | 17 | 20 | 19 | 21 | 23 |
| 115-119 | 16 | 19 | 18 | 21 | 20 | 22 | 24 |
| 120-124 | 17 | 20 | 19 | 22 | 21 | 23 | 25 |
| 125-129 | 18 | 21 | 20 | 23 | 22 | 24 | 26 |
| 130-134 | 19 | 22 | 21 | 24 | 23 | 25 | 27 |
| 135-139 | 20 | 23 | 22 | 25 | 24 | 26 | 28 |
| 140-144 | 21 | 24 | 23 | 26 | 25 | 27 | 29 |
| 145-149 | 22 | 25 | 24 | 27 | 26 | 28 | 30 |
| 150-154 | 23 | 26 | 25 | 28 | 27 | 29 | 31 |



Measures#4 – R&D 方法#4 研发



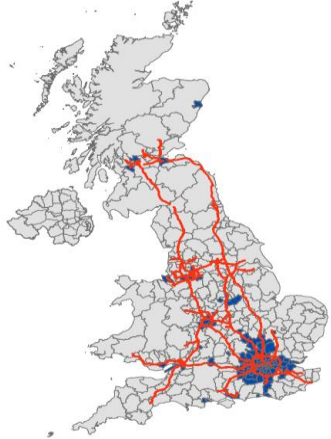
- Up to £82m to 2015, on 'sticky technologies'
- [Up to £82m to 2015, on 'sticky technologies']
- Giving ULEV innovation 'roots' in the UK for the long term
- [Giving ULEV innovation 'roots' in the UK for the long term]
- £1bn combined funding for Advanced Propulsion Centre
- [£1bn combined funding for Advanced Propulsion Centre]
- Further £100m ULEV R&D to 2020
- [Further £100m ULEV R&D to 2020]



Measures#5 – Hydrogen 方法#5-氢能



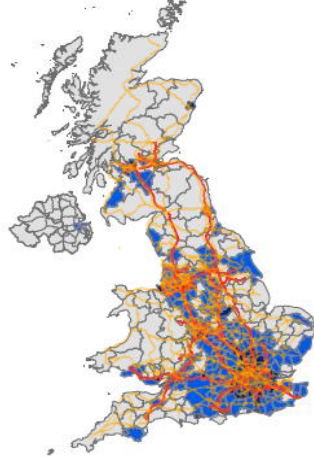
Seeding of Tier 1 regions¹ – major cities and connecting roads in 2015



~65

Initial seeding in **major population centres**

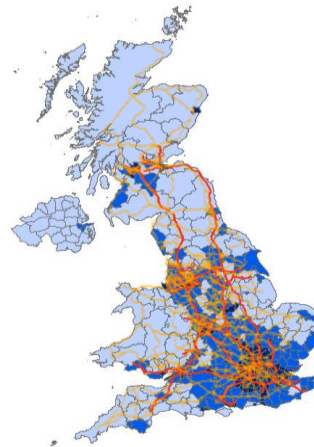
Coverage extended to Tier 2 regions and all major roads <2025



~330

Extend coverage to enable close-to-home refuelling to **50% of the population** and long distance **travel**

Full population coverage by 2030



~1,150

Extend close-to-home refuelling to the **whole of the UK**, including less populated regions

Phase 1 participants

UK Government departments



Car OEMs



Hydrogen providers/ producers and utilities



Technology providers



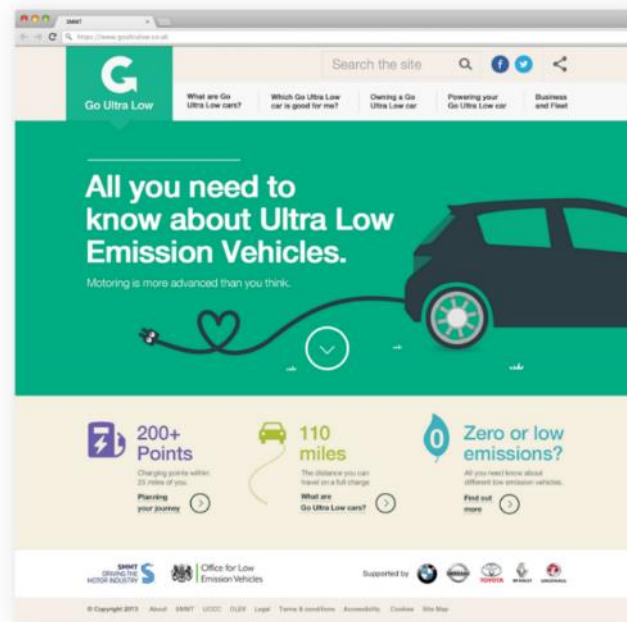
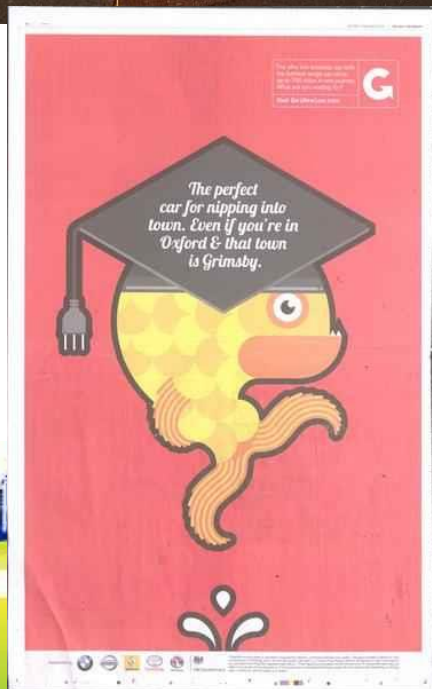
Public-private partnerships



Fuel retailers



Measures#6 – Communications 方法#6- 交流



4. PROGRESS 进展

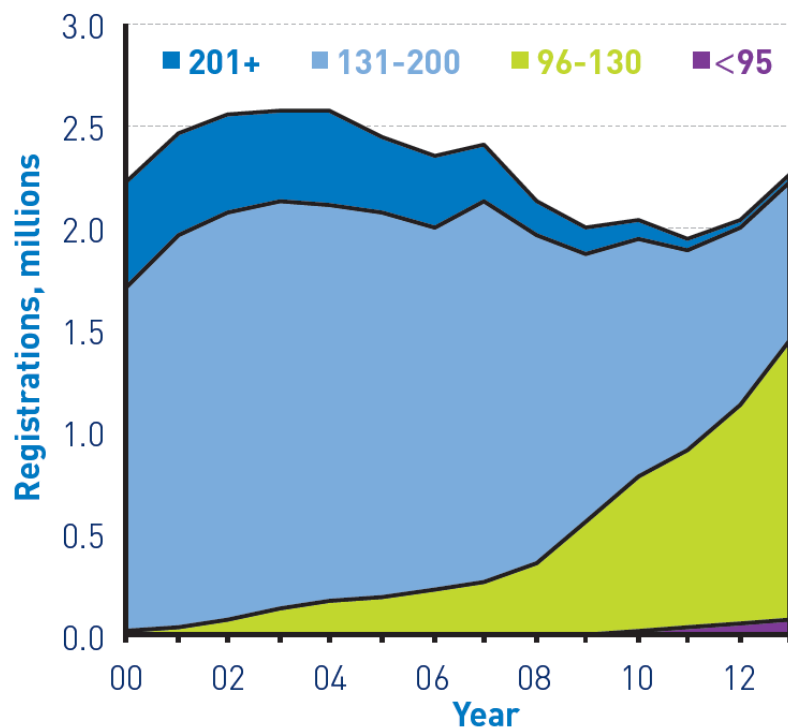


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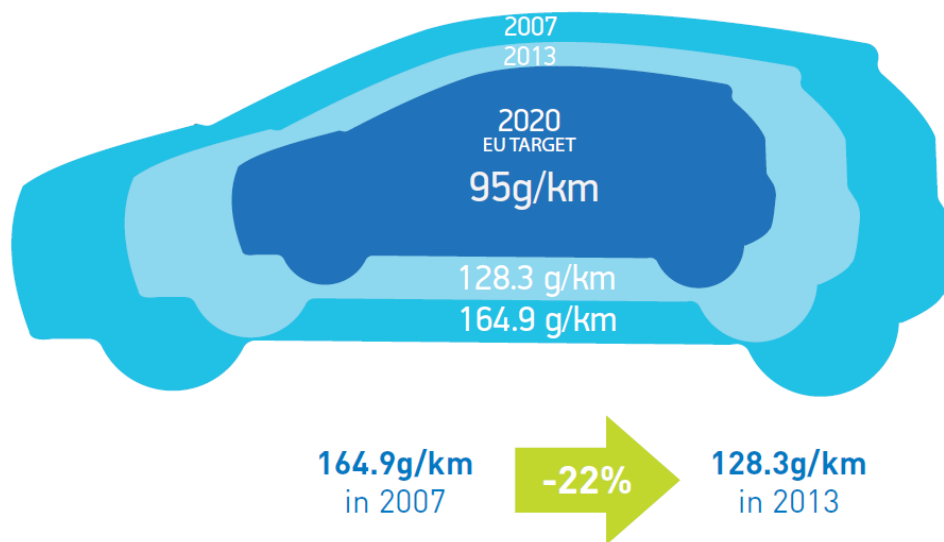


Progress – UK fleet 进展 – 英国的车队

Chart 4 New car market by selected CO₂ bands



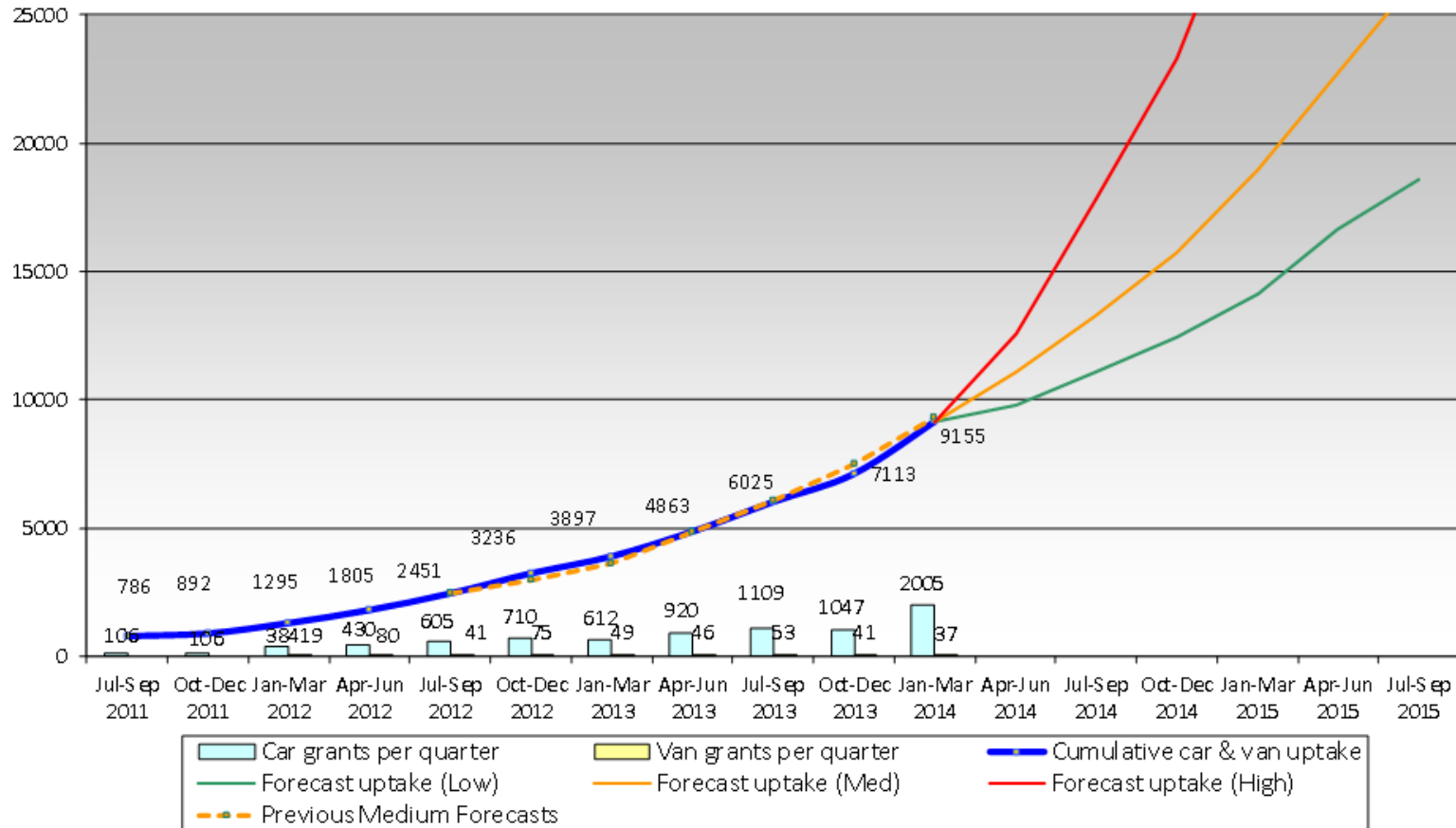
Average UK new car CO₂ emissions



Progress – ULEV uptake 进展 – 超低排放车增长

Plug-in Car and Van Grant Uptake / Forecast

(at April 2014)



5. KEY CHALLENGES 主要挑战



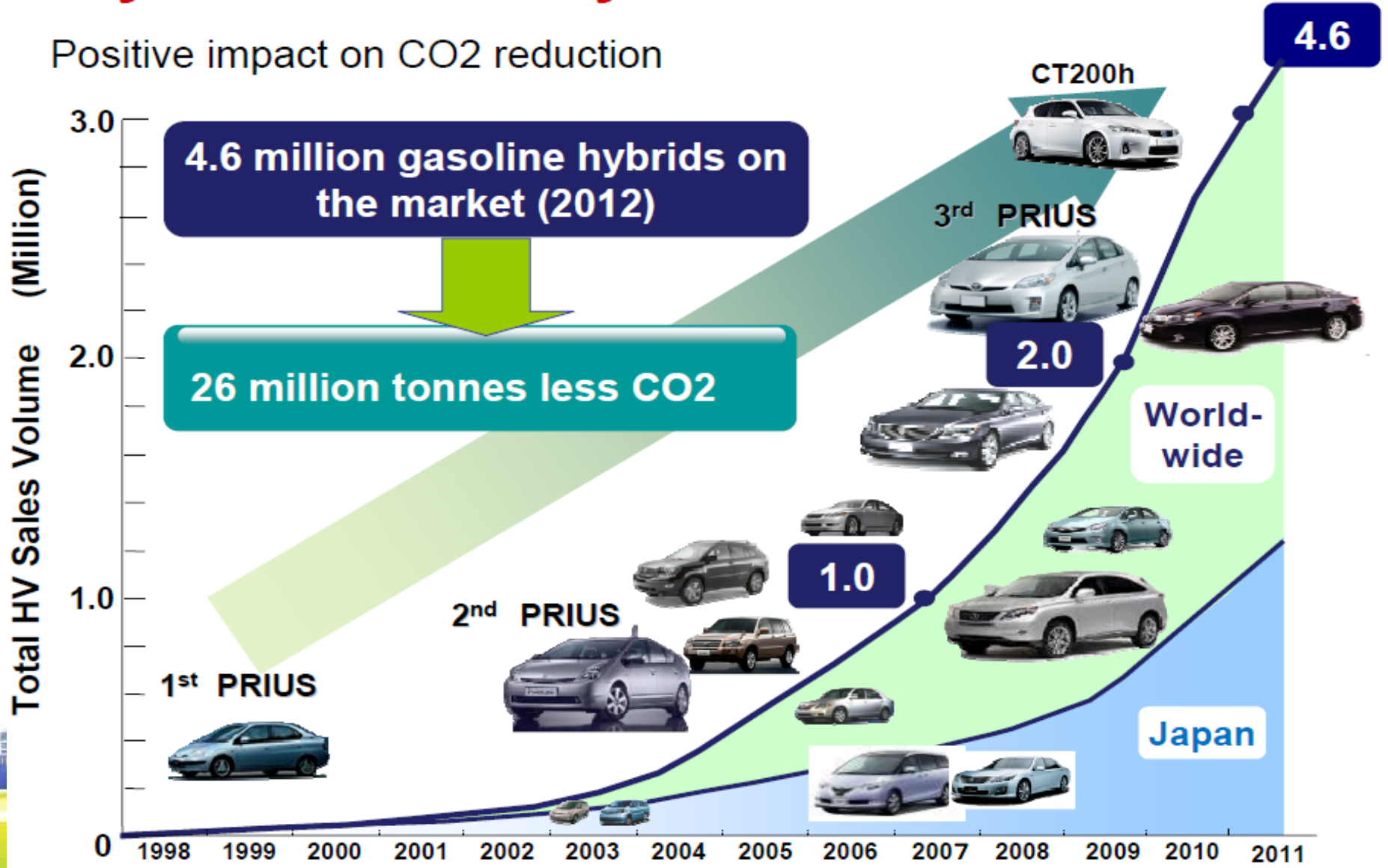
Office for
Low Emission
Vehicles



The long game 持久战

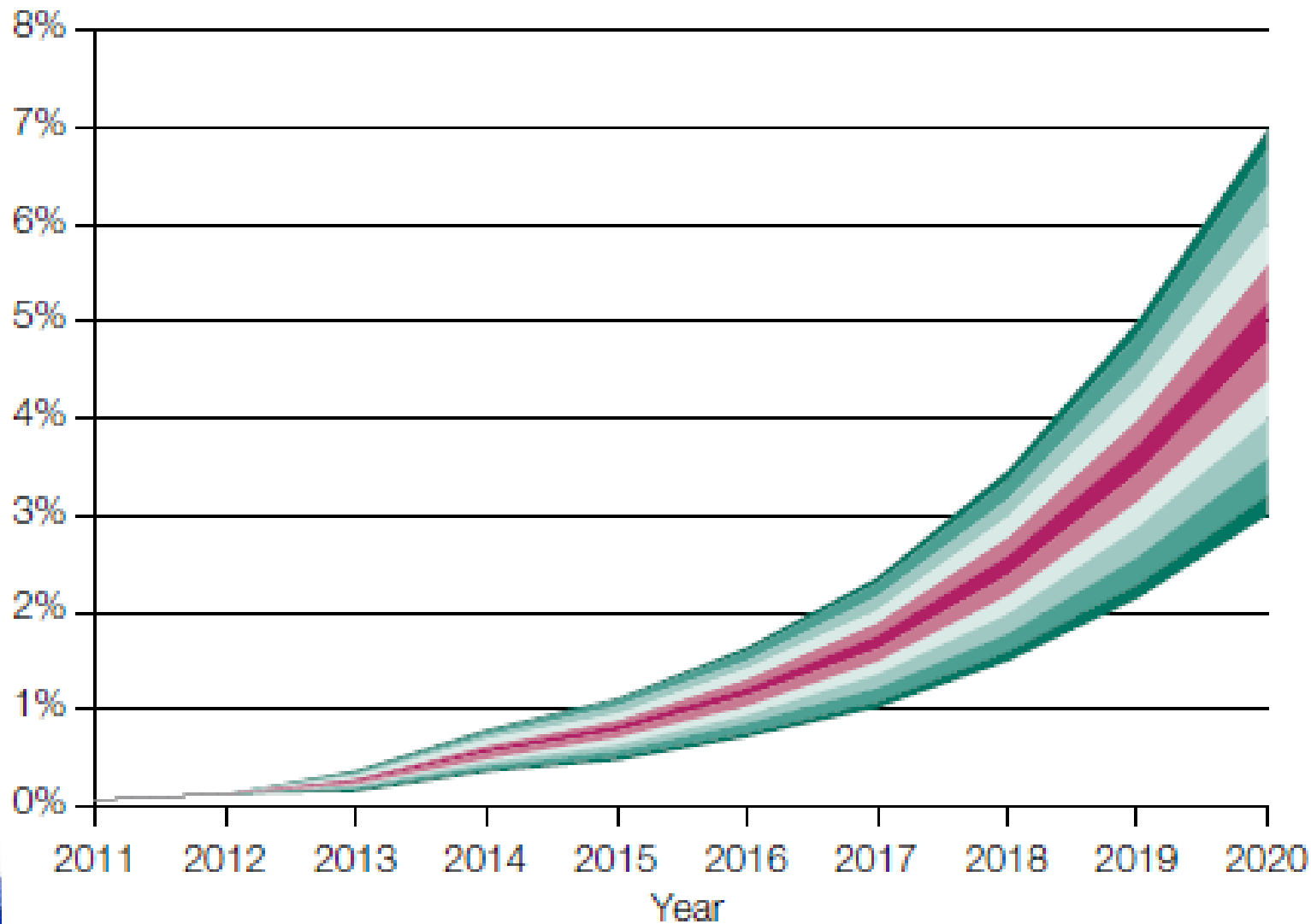
Toyota & Lexus Hybrid Sales

Positive impact on CO2 reduction



Projected ULEV penetration (2011-20)

超低排放车的市场占有率预测 (2011-20)



Source: Department for Transport modelling

COMMUNICATION

沟通



PRICE / RANGE

价格 / 行驶里程





NORMALISATION

常规化



6. NEXT STEPS 下一步计划



Office for
Low Emission
Vehicles



£500m support 2015-2020

2015-2020年将发放5亿磅的支持资金

£200m+ Plug-in car grant 插电车奖励

£30m Other vehicles grant 其他车奖励

£20m Taxi fund 出租车基金

£100m R&D 研发

£32m chargepoint infrastructure grants 基础设施奖励

£35m City schemes 城市规划

£30m Green bus support 绿色公交支持

£4m HGV Gas infrastructure 氢能基础设施

£m Hydrogen Infrastructure

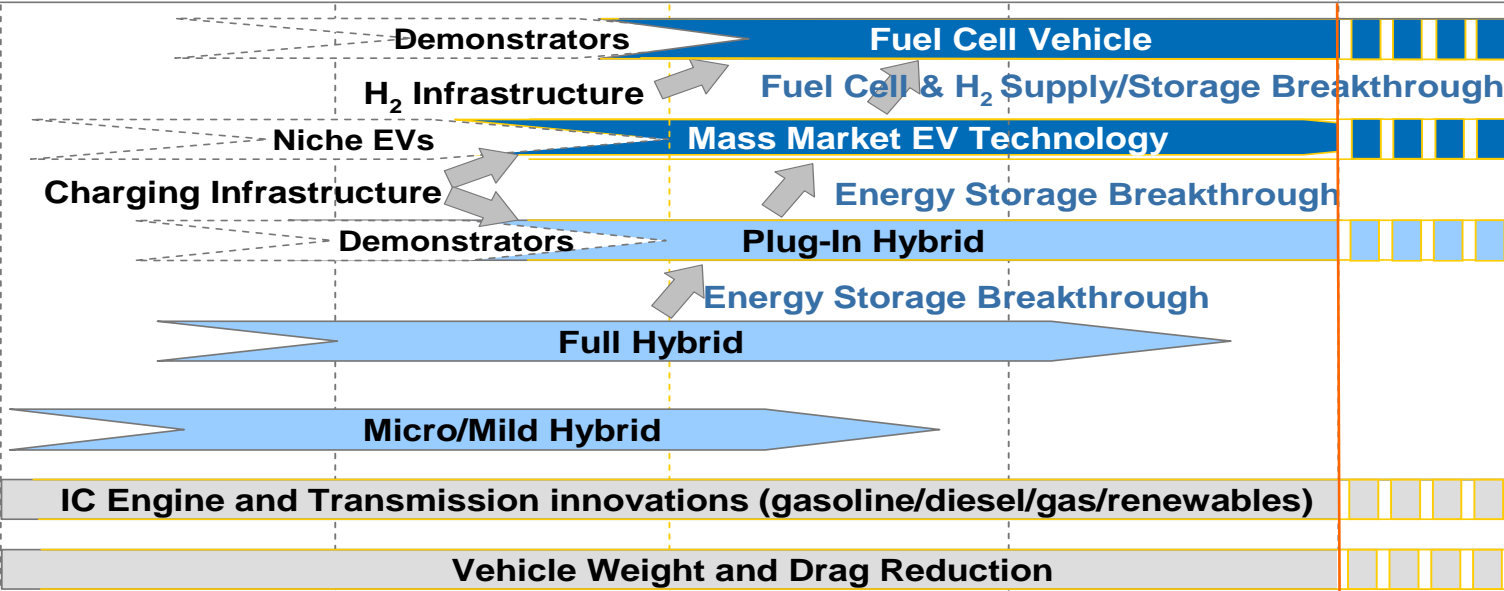
£m unallocated



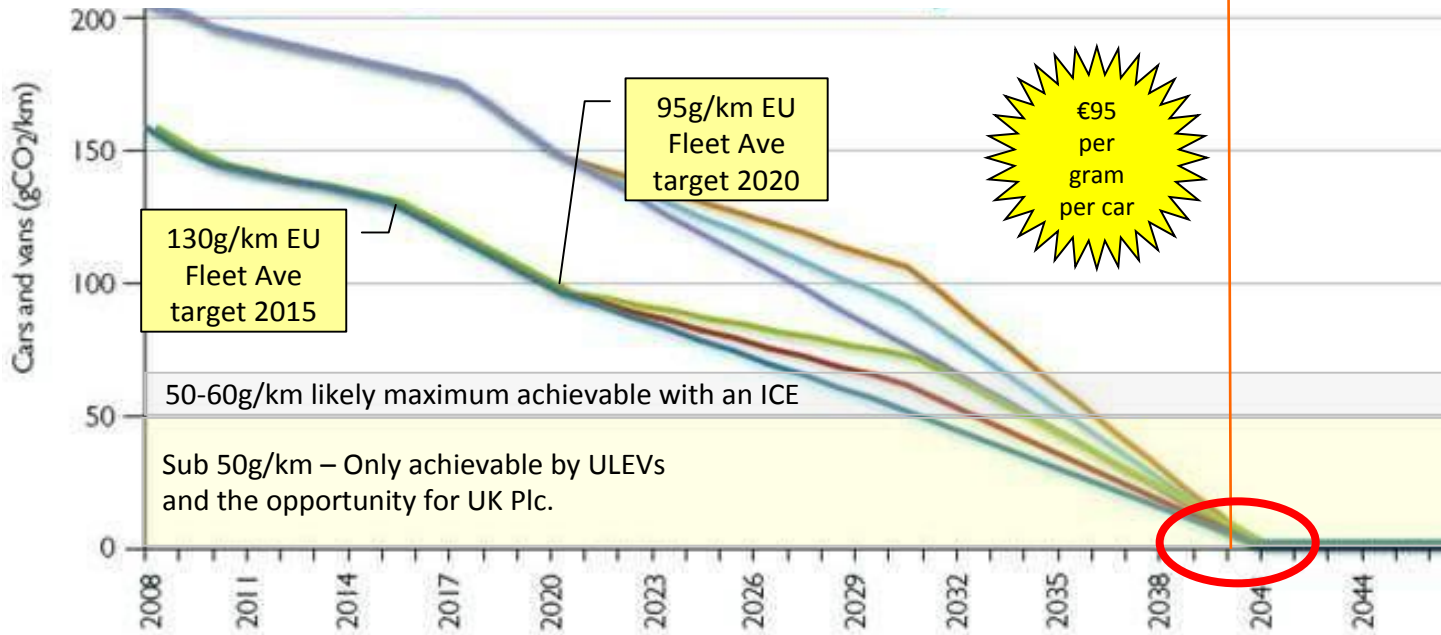
2025/30 EU Regulation critical

2025/30的欧盟政策管理至关重要

Tech



Regs





THANK YOU

谢谢

richard.bruce@olev.gsi.gov.uk

www.gov.uk/olev

www.goultralow.com

@GoUltraLow

@OLEVgovuk

