UK ELECTRIC VEHICLE INDUSTRY

RECENT PROGRESS → FUTURE PLANS

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CONTENTS:

• UK Automotive industry

• SMMT Electric Vehicle activity
  o Recent progress
  o What happens next
EU Fleet Average CO₂ Targets (g/km)

2000  2010  2020  2030  2040

Mass Market EV Technology

Niche EVs

Charging Infrastructure

Demonstrators

Fuels Cell Vehicle

H₂ Infrastructure

Plug-In Hybrid

Energy Storage Breakthrough

Demonstrators

Fuel Cell & H₂ Supply/Storage Breakthrough

Energy Storage Breakthrough

Full Hybrid

IC Engine and Transmission innovations (gasoline/diesel/gas/renewables)

Vehicle Weight and Drag Reduction

TBD
INDUSTRY PROGRESS: THREE ELEMENTS

✓ Government understanding and support
✓ Industry ready
✓ Market ready
THREE ELEMENTS: GOVERNMENT SUPPORT

✔ National government

R&D support
• £ 120 million + Technology Strategy Board Low Carbon Vehicles (total over £200m)
• Skills and trainings programmes

Manufacturing support
• £ 20 million supply chain competition (total over £50m)
• Emphasis on SMEs and sourcing in the UK
THREE ELEMENTS: GOVERNMENT SUPPORT

Promotion of technology
- £ 300 million consumer incentives
  - £ 43 million until March 2012
- £ 45 million Green Bus Fund
- £ 25 million ultra low carbon vehicle demo-programme
- £ 24 million in high value manufacturing R&D

Further measures
- Vehicle Excise Duty exemption
- 1st year capital allowances for fleet vehicles and vans
- 0% Benefit in Kind/ company car tax for 5 years
- Lower rate of VAT for domestic electricity
THREE ELEMENTS: GOVERNMENT SUPPORT

Plugged-in Places
• £ 30 million for ‘Plugged-in Places’
• 50% Government funding for infrastructure installation

Plug-in Car Grant
• Purchase incentive: 25% up to £5,000
• (Review in 2012)
THREE ELEMENTS: GOVERNMENT SUPPORT

✓ Local government

- Eight Plugged-In Places
- Interoperability focus
- 15,000 charge points
- Own EV fleets
- Local EV incentives
- Consumer focus: e.g. Source London
INDUSTRY PROGRESS: THREE ELEMENTS

- Government understanding and support
- Industry ready
- Market ready
INDUSTRY PROGRESS: KEY INGREDIENTS
### VEHICLES AVAILABLE IN 2010 AND 2011

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<thead>
<tr>
<th>Brand</th>
<th>Model</th>
<th>Type</th>
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<td>e-Bipper Tepee</td>
<td>Pure-EV</td>
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<td>iRacer</td>
<td>Pure-EV</td>
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<tr>
<td>Brand</td>
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INDUSTRY PROGRESS: THREE ELEMENTS

- Government understanding and support
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INDUSTRY PROGRESS: DEMAND

- Common learning curve
PERCEPTION CHANGE

Users attitude towards electric vehicles after trial, by age group

- 100%
- 90%
- 80%
- 70%
- 60%
- 50%
- 40%
- 30%
- 20%
- 10%
- 0%

20s 30s 40s 50s 60s

Same
More Positive
Less Positive
INDUSTRY PROGRESS: THREE ELEMENTS

- Government understanding and support
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- Market ready

Diagram showing the interplay between Government, Demand, and Supply.
CONTENTS:

• UK Automotive industry

• SMMT Electric Vehicle Activity
  ○ Recent progress
  ○ What happens next
SMMT EV ACTIVITY:

- Main EV Group
  - Permanent sub group
    - Millbrook
  - Technical Working Group
  - Consumer Education WG
  - High Voltage Training WG
  - Low Carbon Commercial Vehicle WG
  - EV & Hybrid Interest Group
  - EDF Energy
  - Nissan
  - Renault
  - Bvrla BVRLA
  - Mira
  - Energy Saving Trust
  - Automotive PF
  - Toyota
  - Transport for London
  - North East Commercial
  - A.n.other WG
EV GROUP FOCUSES ON:

1. Policy
2. Infrastructure
3. Technical
4. Investment
5. Consumer perception
6. EV Hub
WHAT HAPPENS NEXT

1. Market support
   b. Insurance
   c. Residual values

2. Low Carbon Commercial Vehicle framework

3. International presence
EV TECHNICAL WORKING GROUP FOCUSES ON:

1. Regulation
2. Standardisation
3. Training
4. End of life/ recycling
5. Safety
EV TECHNICAL WORKING GROUP IN 2011

1. Infrastructure
   a. Charger standardisation
   b. Plugged-In Places collaboration
   c. (Induction charging)
   d. (Vehicle to grid)

2. Training roll out

3. End of life/ recycling

4. Safety
Partnerships are key