West Midlands Automotive Cluster

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West Midlands’ Regional Strengths

- Centre of Gravity of UK Industry;
  - 33% of UK car production in 2008 within 60 km of Central Birmingham
  - 40% of UK automotive employment (114,000+ direct employees)
  - 1,500 dedicated automotive suppliers, with 16 of the top 20 global first tier suppliers
  - Extensive 2nd/3rd tier supply base and aftermarket
  - >60% of UK R&D by value located in the region, including independent and OEM-owned facilities
  - Unique automotive expertise and resources in Universities
Automotive Crisis and Opportunity?

- Mature sector with established practices
- Over capacity – world can produce 80 million+ but only demands 65 million at best
- Reduction in the use of non-renewable energies (vehicles, manufacturing and recycling)
- Therefore auto faces significant restructuring
  - Manufacture
  - Vehicle type
What are the Opportunities and Growth Areas

- Low Carbon Markets
  - LCV & Ultra Low Carbon Vehicles technologies
  - Intelligent Transport Systems
  - Infrastructure
  - Manufacturing (utilities and carbon content)
  - New Supply Chains – for the above
New Automotive Innovation Growth Team (NAIGT)

EU Fleet Average CO₂ Targets (g/km)

- 130
- 100
- 80

- Plug-In Hybrid
- Mass Market EV Technology
- Fuel Cell Vehicle
- Energy Storage Breakthrough
- Fuel Cell Stack & H₂ storage Breakthrough
- H₂ Infrastructure
- Charging Infrastructure

- Niche EVs
- Demonstrators
- Ultra-Low Carbon
- Low Carbon

- IC Engine and Transmission innovations (gasoline/diesel/renewables)
- Vehicle Weight and Drag Reduction
- Full Hybrid
- Micro/Mild Hybrid
- Energy Storage Breakthrough

- 2000
- 2010
- 2020
- 2030
- 2040
- 2050
Automotive Projects

- **Intelligent Transportation Systems**
  - Vehicle to vehicle & road to infrastructure
  - Congestion charging, mobile data etc
  - Encourage Collaborative R&D
  - Significant partners
    - UK Technology Strategy Board
  - Attract investment – ready end 2009
Automotive Projects

- **Niche Vehicle**
  - Access to small companies and innovation
  - Growth Market
  - Support Innovation
    - Collaborative R&D
    - Share Best Practice
  - Homologation
  - Support for LCV coming from these companies
  - *Will be looking to European regions*
    
    *Win/win projects*
Low Carbon Vehicle Demonstration Trial

UK Technology Strategy Board
Ultra Low Carbon Vehicles Call
- £14 million project
- From end of 2009 for 12/18 months
- 110 vehicles with less than 50 gm of CO2/km
- For impact evaluation on the infrastructure, plus societal and lifestyle changes

Massive opportunities for the future
Low Carbon Vehicle Technology

- 15 work streams
- Acceleration of the introduction of the next LCV
- The technology will need a new supply chain
Infrastructure & Business

Why
- Infrastructure to create the atmosphere conducive for change to LCV
- Infrastructure to support demand for LCV
- Infrastructure to lead the way in CO2 reduction
- Attract manufacturers who need to be close to market
- And attract /create the supply chain

How
- Agreement to work together to Maximise Investments
- Support Business to grow
Conclusion

- LCV are the drivers for change in energy use & climate change
- Use resources we have in region to develop new markets
  - Get everyone working in the same direction
- Provide the suppliers to service the new market
- Work with UK (EU) regions to pool resources
- Develop UK (EU) electric vehicles and infrastructure and avoid duplication;
  - Talk with other UK regions across EU and wider afield...
  - We need to support industry (and access their finances)
  - Need tier 1 suppliers back in UK
Automotive Cluster

Thank you and any questions?

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