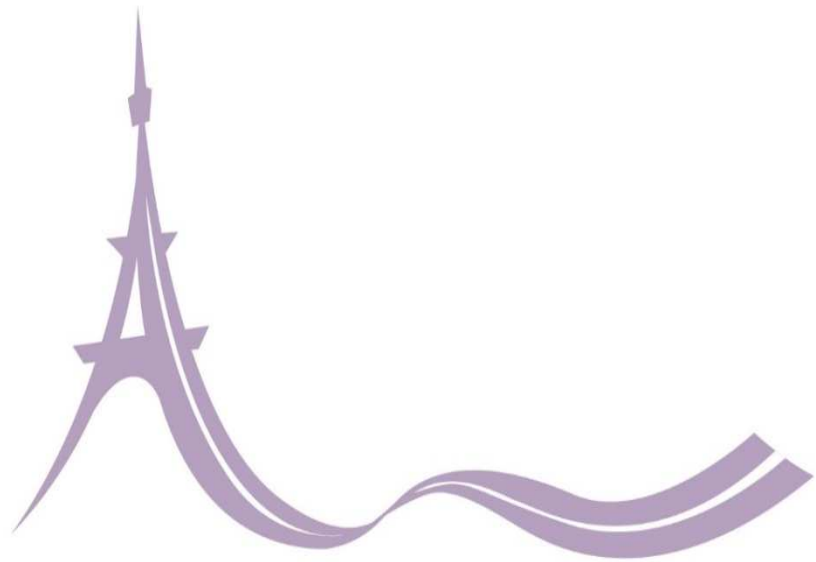


# Management of Road Assets in the UK



PAVEMENT PRESERVATION & RECYCLING SUMMIT

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Lila  
Tachtsi  
Atkins

**ATKINS**

- › Setting the context
- › Understanding the problem
- › Developing a sustainable approach
- › From national to local level
- › What next

Setting the context

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## Context – local roads

- › 98% of England's roads
- › 157 highway authorities
- › 183,000 miles
- › 113,000 of them unclassified
- › 52,000 bridges
- › £235bn – estimated value, English local roads
- › *“The local highway network and other local transport infrastructure assets represent the biggest capital asset that the UK public sector holds.”*





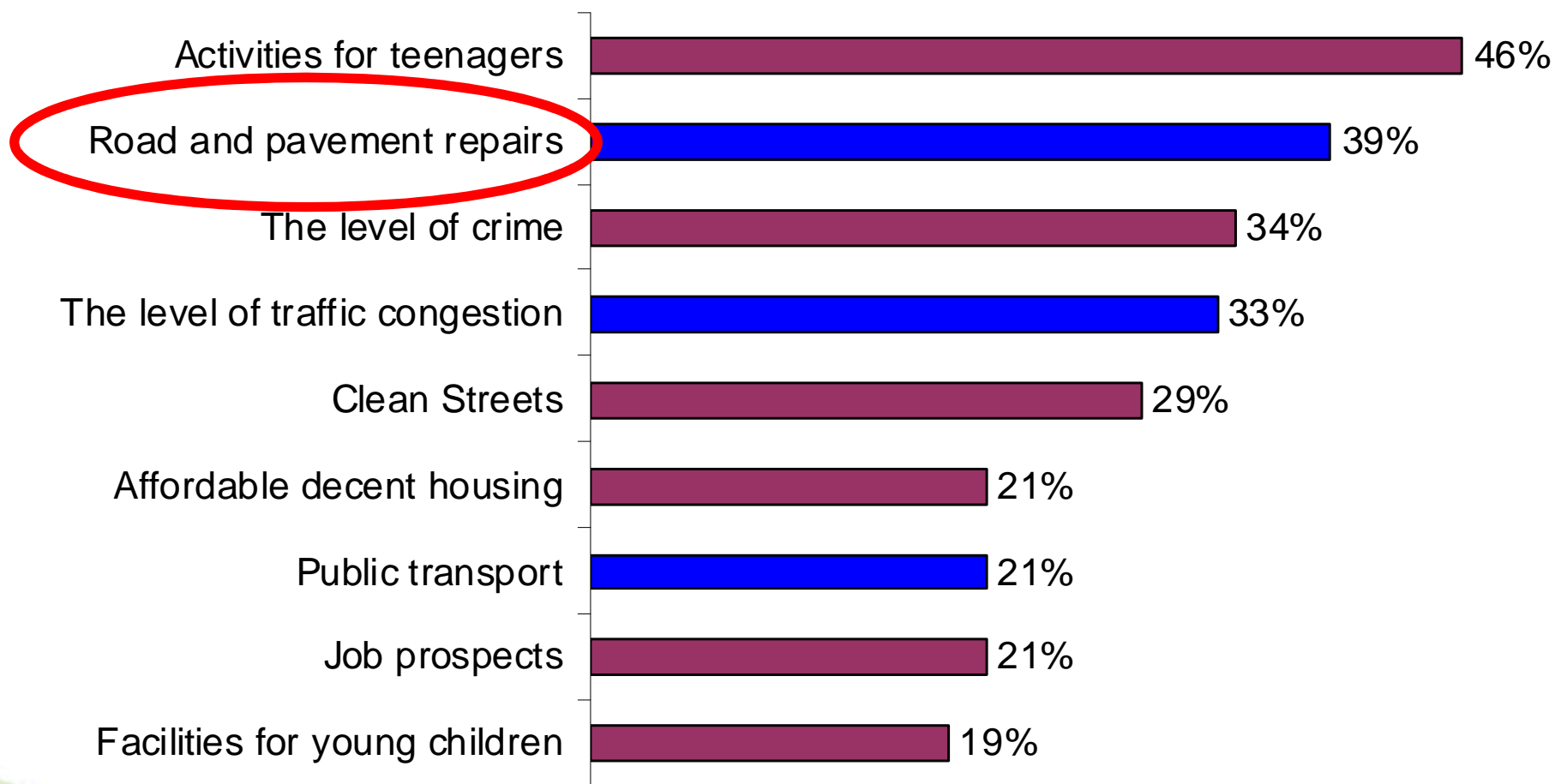






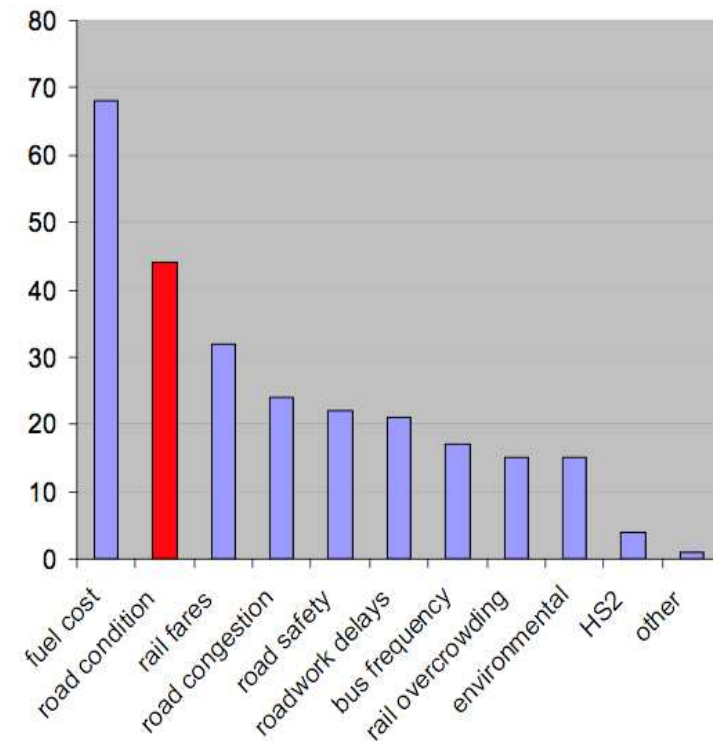


## Context



## UK road asset

- Ageing networks with a significant backlog of required maintenance
- Increasing public expectations as the public are increasingly informed and demanding
- Increased accountability to customers and funding providers
- Insufficient investment has an impact on:
  - The asset owner
  - The public
  - The economy



Understanding the Problem

| 2

## Highway maintenance - facts & figures

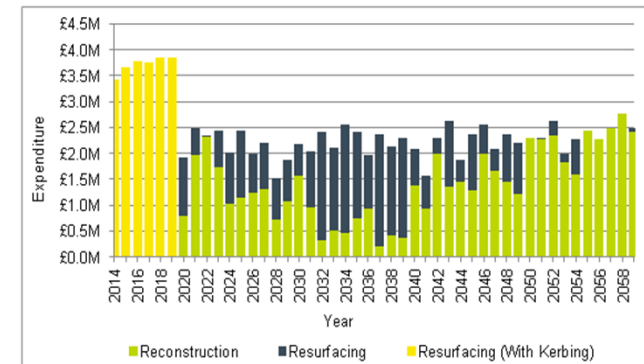
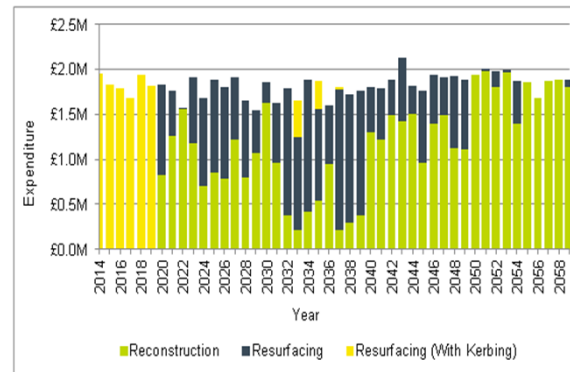
- Local road network is valued at £400bn – councils' most valuable asset
- Poorly maintained roads cost the economy £4.1bn per year
- £1 invested in highway maintenance provides £1.5 to the economy
- £1m invested in maintenance creates 15 jobs
- £1 invested in preventative maintenance saves £4 in capital maintenance



- › We knew there was a problem
- › What was the maintenance backlog?
- › What does that mean?

## Department for Transport

- › Study to determine “maintenance backlog”
- › Level of investment needed
- › HDM4 used to analyse:
  - National Level
  - Affordable level of service
  - Impact of funding scenarios

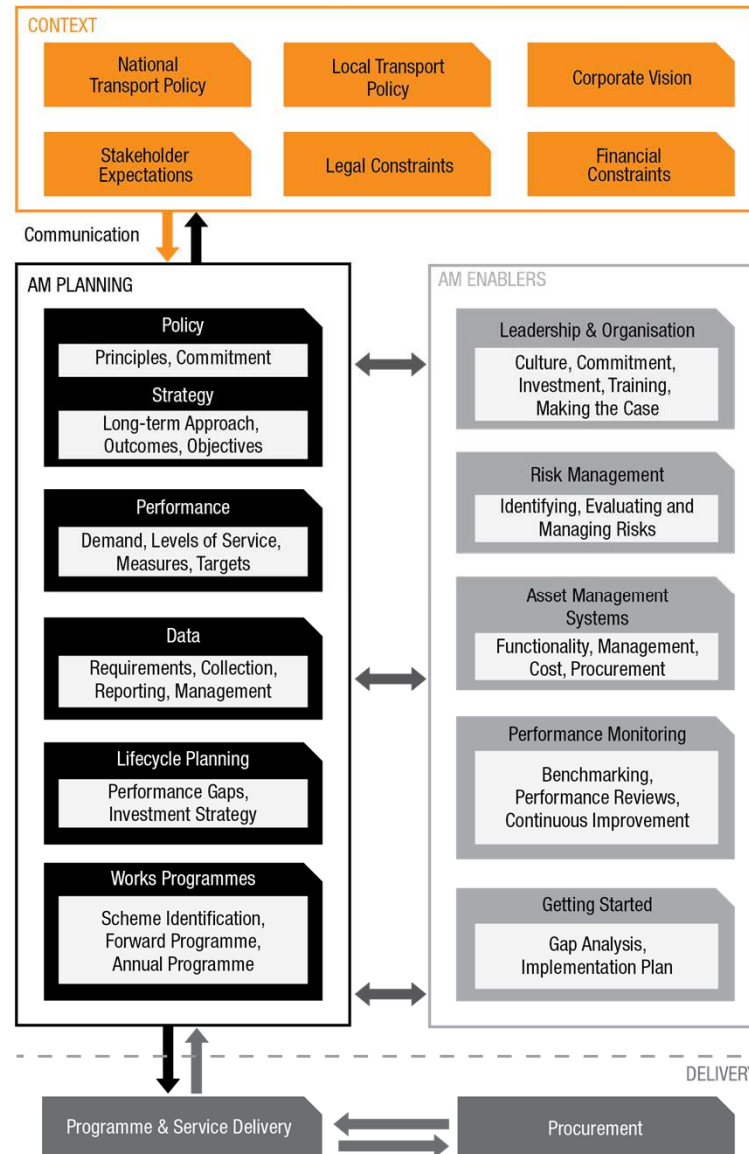


A Sustainable Approach

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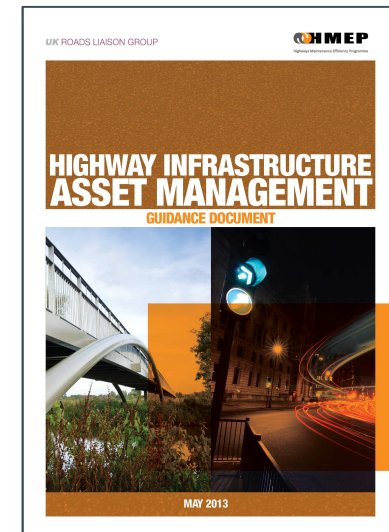


- › Asset management fully supported by the sector
- › Making asset management work



## Steps Taken

- › Established the Highways Maintenance Efficiency Programme
- › Encouraged private and public sectors to work together
- › Funding commitment for 6 years
- › Published National Guidance
- › Articulated the benefits and efficiencies of asset management
- › Incentivised the adoption of asset management through funding
- › Supported a lifecycle based approach to asset valuation



From National to Local

| 4

## The problem

- › Badly deteriorating road network – available budgets not sufficient to arrest deterioration.
- › Condition gap increasing between roads in Birmingham CC and the other authorities.
- › Political pressure

## The solution

- › Present a case to Central Government for additional funding, based on maintenance needs to achieve “steady state”.
- › Build the case for preventative maintenance, demonstrating value for money, based on a lifecycle approach.
- › The Department for Transport accepted the argument but asked for further information.

## The use of HDM-4

- › Calculating the benefits of the investment, including economic, environmental and user
- › HDM\_4 selected to calculate road user costs and vehicle emissions.
- › As a first step, it was agreed to use one of the authorities for the analysis, and extrapolate for the others. – Dudley selected.

## Analysis

- › Two investment scenarios analysed:
  - Base: assuming the current level of funding remains unchanged over the analysis period.
  - Preferred: assuming an increased level of funding that allows for steady improvement in condition (based on Dudley's lifecycle plans).
- › 46 years for the analysis
- › Each scenario described by treatment carried out, year of intervention and cost of intervention

Next Steps | 5



- › Implement the incentivised funding
- › Provide free e-based learning tools
- › Engage with the sector
- › Share lessons learnt and good practice
- › Economic benefits of highway maintenance
- › Measure success

# CONCLUSION

- › Challenges of managing highway infrastructure
- › The problem can be measured
- › Holistic and sustainable solution is needed
- › Build a case for investment
- › Make the best use of resources
- › Appropriate tools have a key part to play