

# **Introduction to the HA, and the Agency's definitions of Long Life Pavements**

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# HA Network Summary



## Key Statistics

7000 km

4% of network by length

Carries 25% traffic volume

50% Heavy Goods Vehicles

Total budget £5.5 billion

Asset valued at £110 billion

Pavements at £62 billion

£850m for road maintenance

£950m for major improvements



# Asset Management Vision

To be a leading network operator by taking a long term strategic approach to the management and monitoring of its asset performance

Achieve this by adopting an integrated approach for:

- Using Whole Life Cost Principles
- Performance tools to monitor and drive delivery of operational outputs and outcomes;
- Optimised maintenance scheduling and works to ensure best value;
- Modelling tools to plan and justify strategic investment;
- A single repository for asset information with unified standards and comparable measures for condition, degradation and geographical location.

# Challenges

- To be a Leading Road Operator Internationally
- Provide a Safe Serviceable Road Network

## Constraint

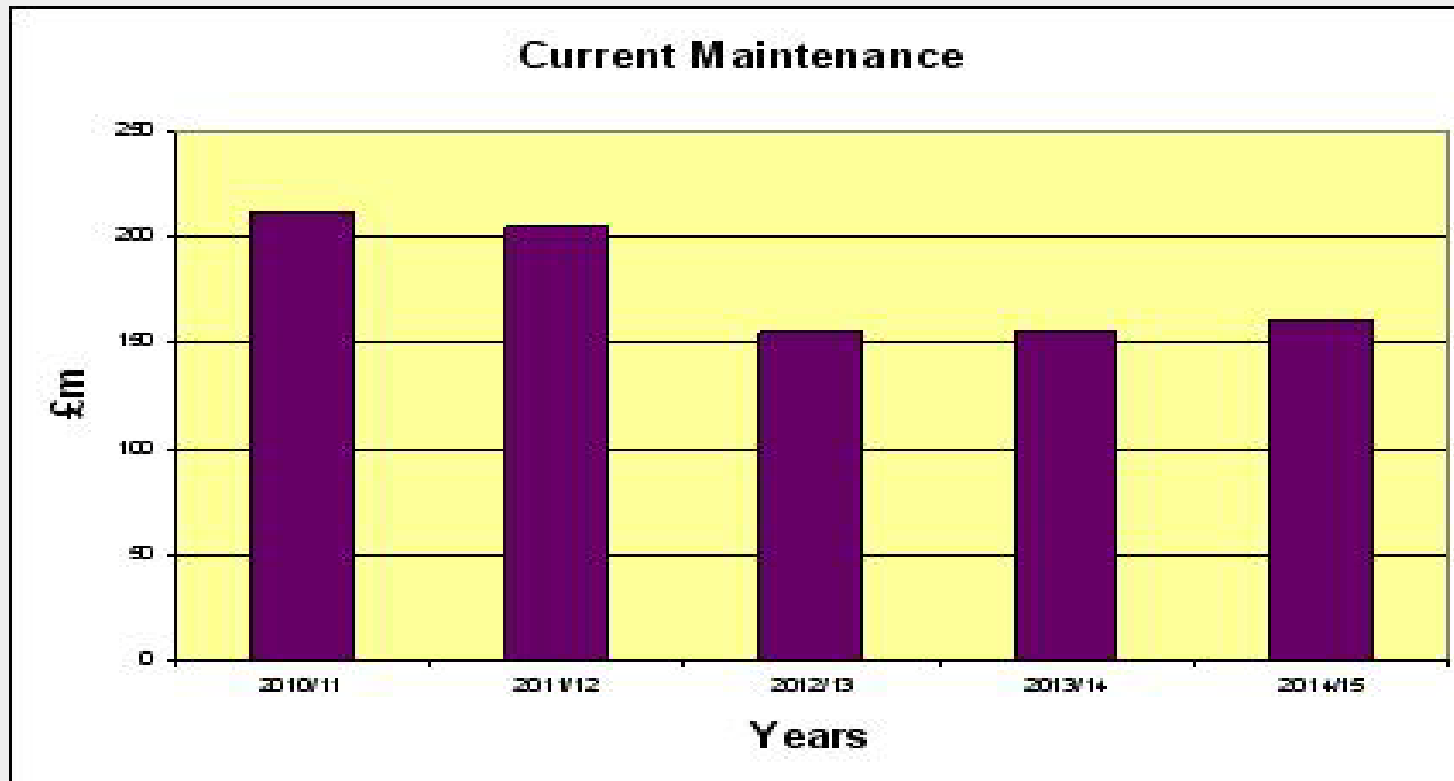
- Deliver within Reduced Funds  
i.e. More for Less



# Spending Review 2010 - Outcome



# Operational Allocations



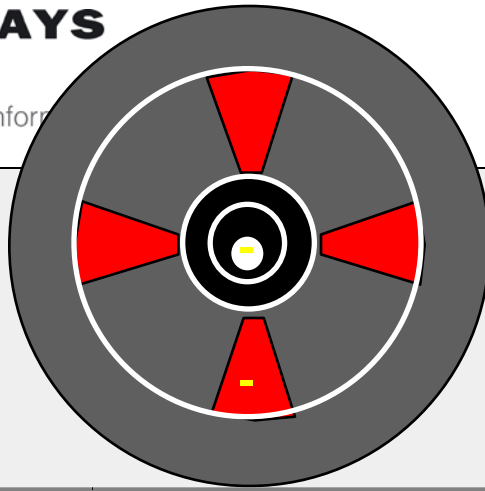
# Initiatives

- Commercial and asset management
- Introduction of new maintenance contracts
- A review of technical standards
- Looking at where and when we do work
- Balancing the impact of road works with the higher cost of night and weekend working

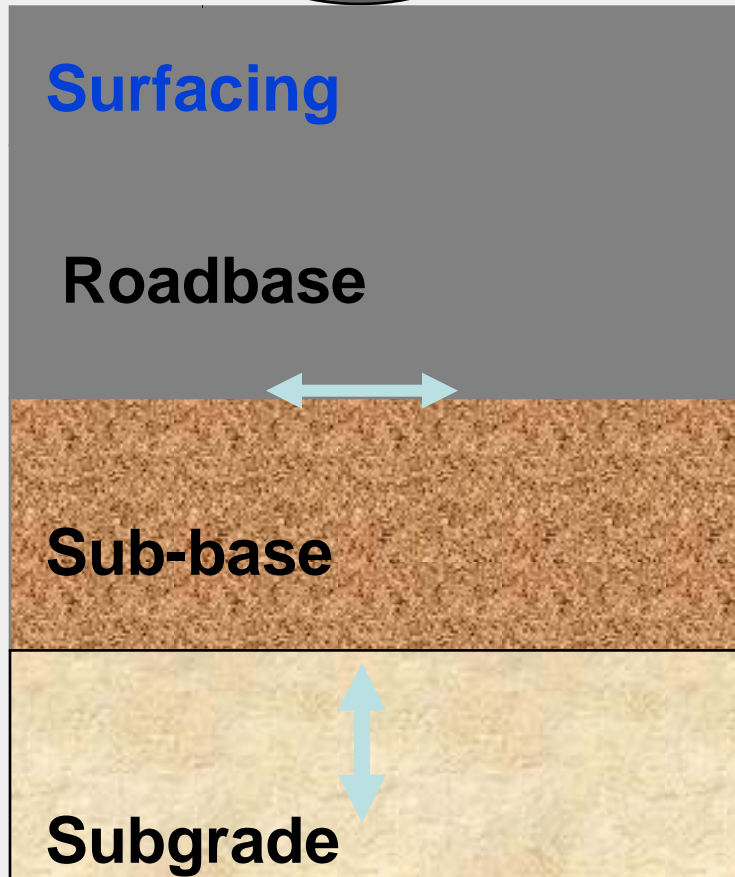
# WHY LONG LIFE PAVEMENTS?







## Limit strains at critical locations in the pavement structure



Limit risk of roadbase cracking

limit structural rutting

**Design methodology described in:**

**TRL Report LR1132**

**“The structural design of  
bituminous roads”**

**by**

**WD Powell, JF Potter, HC Mayhew and ME Nunn**

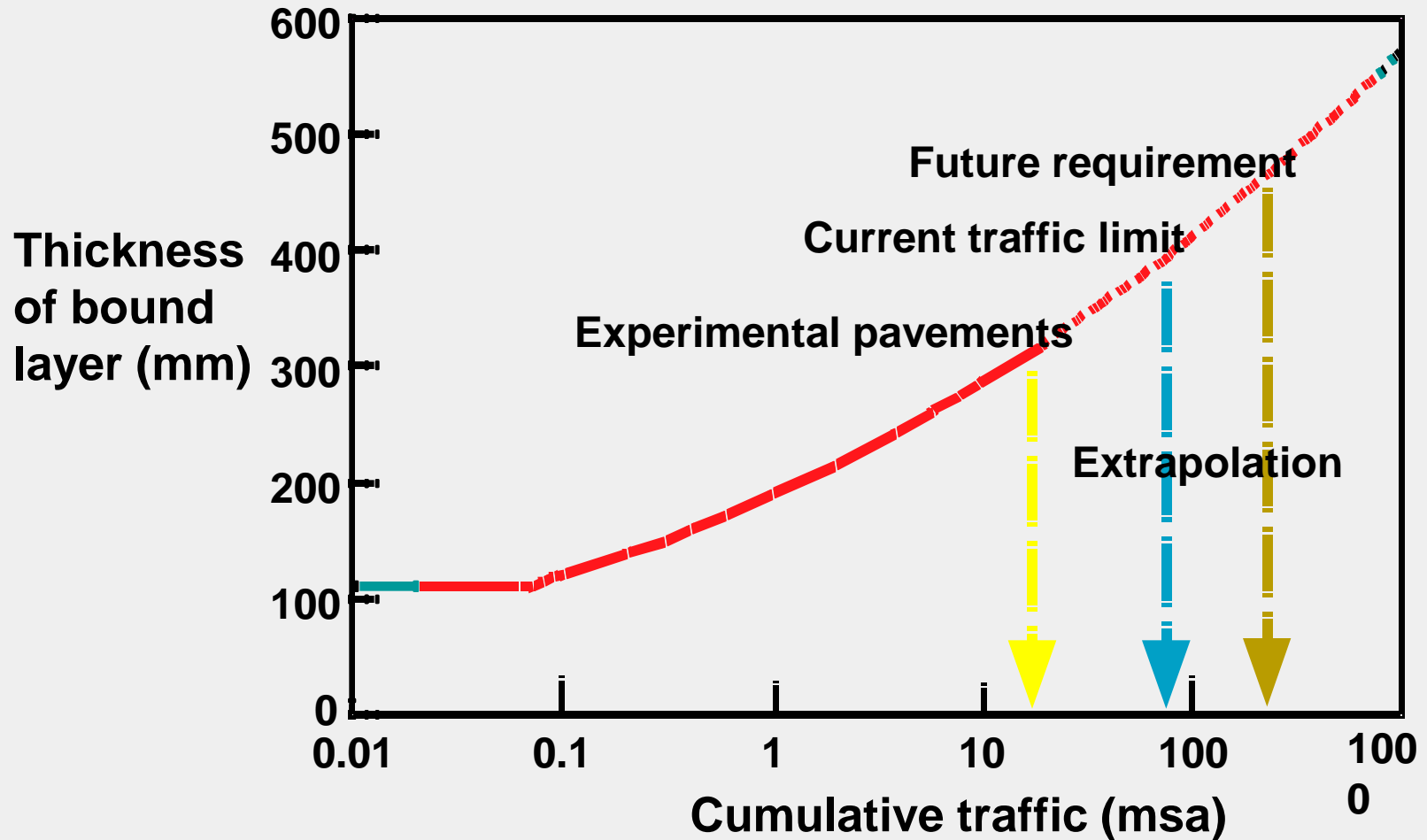
# Since LR 1132

- Traffic levels continued to increase
- User delay costs more important
- Traffic levels of over 200 msa

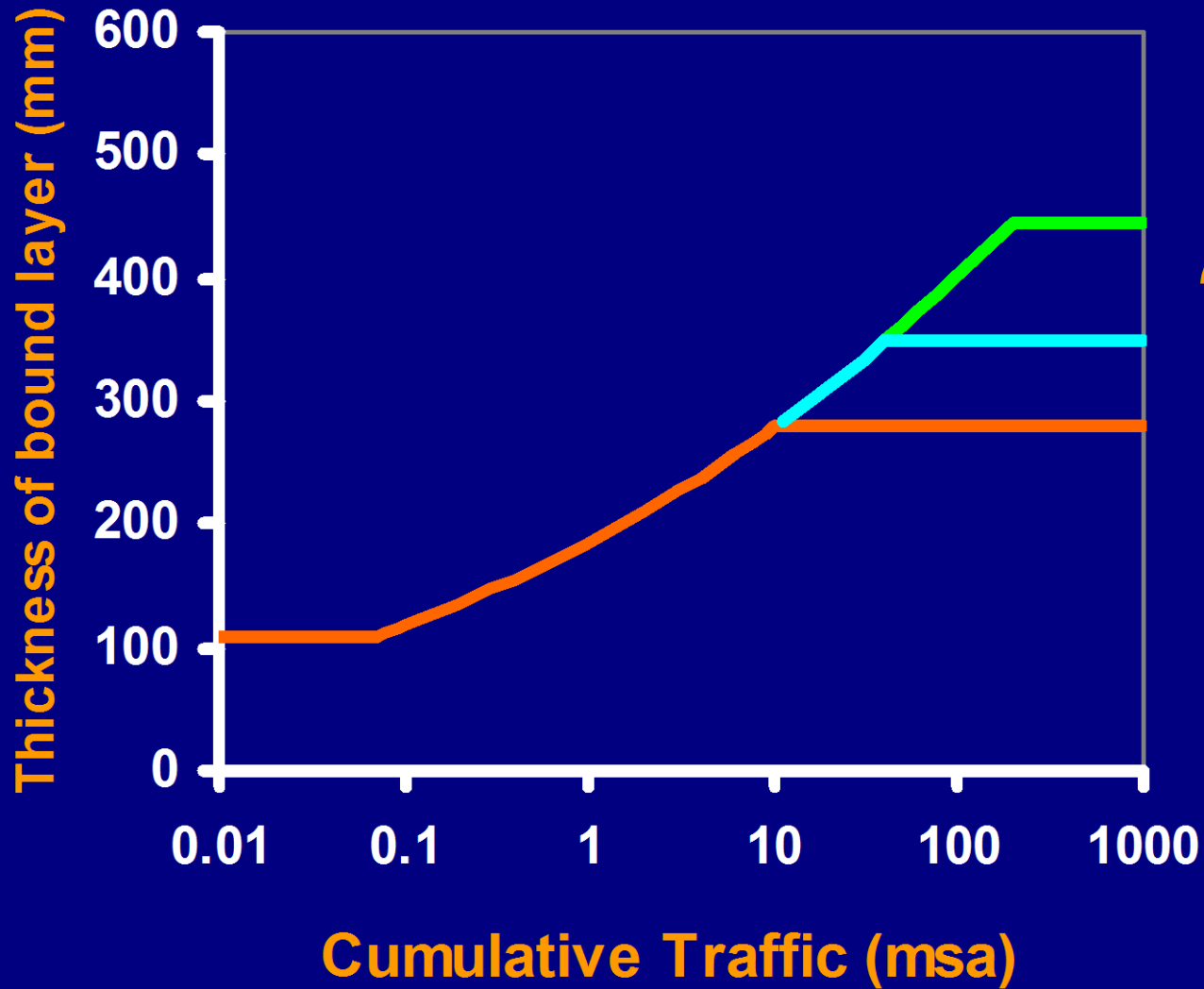
# IS TRADITIONAL THEORY ALWAYS RIGHT ?

- Consider very heavy traffic volumes
- Can pavement thicknesses ever increase ?

# DESIGN CHART (INCREASING THICKNESS)



# DESIGN CHART (CUT-OFF)



# QUESTIONS

Do we need thicker pavements to achieve a longer life ?

**or**

Is there a minimum strength above which structural damage by traffic does not occur.....

....have we reached it ?

# Pavements Spend Outcomes

