

Post Opening Project Evaluation Meta-analysis

Executive Summary • March 2009





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SURREY

The Highways Agency is responsible for investing in major improvements to the trunk road network in England. The Post Opening Project Evaluation (POPE) programme checks whether they are delivering the outcomes we expected.

Each major scheme (over £5 million) has an evaluation report written about it and these are available on our website. In addition, every two years we undertake a review of the whole programme to identify trends and a 'meta report' is published highlighting the main findings.

The purpose of the evaluation is to check that we are making good investment decisions.

The review includes:

- Demonstrating that we are achieving value for money.
- Ensuring that commitments made at Public Inquiry have been met.
- Looking at ways our pre-construction scheme appraisal can be improved.

POPE reviews the schemes on the Government's five core criteria:

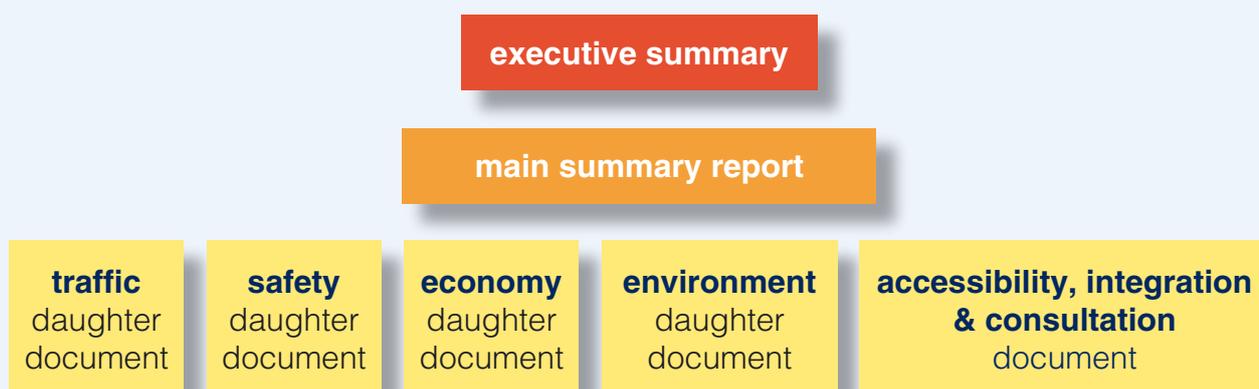
- Environment
- Safety
- Economy
- Accessibility
- Integration

These are the same criteria used to appraise schemes before taking the decision to invest.

The POPE studies for each scheme look at the predictions made when we decided to build the scheme and compares this to what actually happened (the 'outturn situation'). As well as documenting the impact of the scheme, the POPE report comments on whether or not this is 'as expected' so as to be able to draw conclusions about the underlying decision making process.

This brief report is based on evaluation undertaken by Atkins on behalf of the Highways Agency. It highlights the key findings from the 2009 meta report and Atkins' key recommendations to the Highways Agency. The main report is available on the Highways Agency web site and daughter documents are available on request.

Figure 1 - structure of the meta report



Key points from 2009 meta report

Traffic



Key findings:

- Only 40% of bypass schemes have predicted traffic volumes within 15% of outturn, whereas the majority (75%) of junction improvement and online widening schemes are within 15%.
- A reasonably high number of bypass schemes (around 25%) show differences of greater than 25% and most are under-predicting.
- There are clear reasons why these differences occur, namely quality and scope of the modelling undertaken, which have not reflected the actual changes in traffic volumes on different roads, and the key assumptions used within forecasting.

Key recommendations

- Future modelling needs to be more clearly defined and consistent considerations applied between schemes.
- Consideration should be given to a two-tier model approach utilising Strategic National or Regional Model estimates of demand feeding into a more scheme specific modelling platform.
- New guidance is that a 'Core' scenario modelled with sensitivity tests and alternative scenarios should be reported. However, Atkins recommendation is to go further and investigate a risk analysis approach to the treatment of uncertainty in traffic forecasting, similar to that usually associated with cost estimation.

Safety

Key findings:

- At the one year after stage, there is poor correlation between predicted and outturn accident savings, particularly for bypasses.
- Comparisons of Accident savings improve when five years of after accident data is used.

Key recommendations:

- Adopting the traffic modelling recommendations (above) will also improve the accuracy of accident saving predictions.
- It is important to use a sufficiently wide and detailed area in the assessment model for routes where strategic (and local) re-assignment is likely to be an issue.



Economy

Key findings:

- Forecasting of economic benefits is generally not accurate (only 38% of schemes have predicted time benefits and 29% of schemes have predicted accident benefits within 15% of the outturn).
- There is no systematic bias (with roughly equal numbers of schemes over and under predicting) and all schemes show positive economic outturns.
- Those schemes that show accurate traffic predictions generally saw little change in their outturn benefits. Where there was less traffic than predicted, there were reduced benefits.
- Only 42% of predicted scheme costs are within 15% of the outturn, with a tendency to overspend.

Key recommendations:

- Adopting the traffic recommendations will also improve the accuracy of economic predictions.
- Continual improvement in cost prediction is required, although this is being thoroughly reviewed elsewhere in the Highways Agency.



Environment

Key findings:

- The majority (86%) of schemes are accurately predicting opening year environmental impacts.
- The availability of environmental management plans to the POPE team is variable.
- The associated reports monitoring environmental mitigation and Public Inquiry commitments (e.g. archaeological reports) are also often unavailable.
- Concerns were raised on maintenance of mitigation measures after opening.
- There is variability in sharing best practice, despite much good work in implementation.
- Use of local styles within scheme design on walls, fencing and gateway features was considered to be successful.

Key recommendations:

- Ensure that relevant key environmental management plans are completed and available at the appropriate times.
- More clarity is required as to the ownership of monitoring and maintenance of schemes.
- The Highways Agency to identify a vehicle for recording examples of best practice.
- Local styles within scheme design are recommended to give the best impact on landscape.

Accessibility, Integration and Consultation

Key findings:

- The majority (84%) of scheme impacts on accessibility and integration sub-objectives have been as expected.
- The residents' surveys have been successful and mostly providing positive feedback on the scheme. Key concerns are focused mainly on the local road after scheme opening and new congestion/safety issues at junctions where new and existing roads meet.

Key recommendations:

- The outcomes of the consultations should be shared with the relevant departments of the local authorities to enable them to address residents' concerns.
- The scheme design issues should be reported to the Highways Agency.
- The Highways Agency should respond to residents on the key issues that were raised and proposed actions.



What next?

The key recommendations suggested by Atkins are highlighted above. These are supported by other, more detailed recommendations which can be found in the 'daughter documents'. The Highways Agency will review all of the recommendations put forward and undertake action as appropriate.

A full review of the recommendations will take some time, however the following actions are already underway:

- The key finding and key recommendations have been reported to the Major Projects board within the Highways Agency and they are keen to see that an action plan is prepared and tracked.
 - Traffic modelling recommendations will be reviewed in conjunction with DfT and in the light of the forthcoming new guidance on the topic;
 - The findings of this report will be drawn to the attention of the staff who approve traffic modelling to inform them of the issues it raises.
 - Issues surrounding cost predictions have already been subject to an extensive review and procedures were changed in light of this.
 - The link between environmental reporting and the Highways Agency's formal project control framework is being explored.
 - Internal ownership of the scheme monitoring reports will be discussed by Highways Agency management to establish a method of incorporating the results into the business.
- Issues surrounding the production of the Handover Environment Management Plan and the subsequent handover of environmental mitigation measures to the Managing Agent Contractors (MACs) from the scheme contractor and their final ownership and maintenance will be explored.
 - In future, the results of surveys will be sent directly to the relevant Local Authority, rather than waiting until the full evaluation report is complete. This will allow a timely response on their part.
 - In future the detailed findings of residents' surveys will be sent to the Highways Agency's Area Team and the MACs for the area, rather than just the summary included in the scheme evaluation report.
 - We will continue to include residents' surveys as part of POPE for schemes with significant quality of life impacts. We will consider how the consultation process can be improved.



Want to find out more?

The main meta report is available on our website, along with other information about POPE:

www.highways.gov.uk/evaluation

or contact us on:

08457 50 40 30

Lines open 24 hours a day, 365 days a year.

(calls from BT landlines to 0845 numbers will cost no more than 4p per minute; mobile calls usually cost more)

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