

Policy Position:

HIGHWAYS MAINTENANCE

November 2018



ADEPT

The Association of Directors of Environment, Economy, Planning & Transport

POLICY POSITION: HIGHWAYS MAINTENANCE KEY MESSAGES

- We all need local roads that are safe, reliable and efficient, but Government funding for proper maintenance is wholly inadequate. Funding for local roads infrastructure is disproportionately low compared to spending on strategic roads and motorways, resulting in a £9.3bn repairs backlog.
- The current funding system for local roads infrastructure is broken. Local roads are a significant national asset needing long-term management and investment, but multiple uncoordinated funding streams and short-term handouts provide an uneconomic model. We need sustainable, long-term and devolved funding that is aligned with local Highway Infrastructure Asset Management Plans.
- We need to get away from the wasteful use of resources spent on filling potholes and other reactive work. Councils and the Department for Transport (DfT) have made good progress with developing an asset management approach, but more needs to be done. Prevention is better and more cost effective than covering the cracks.
- New technology and digital innovation offer new opportunities. We need a strategic approach to stimulating innovation and investing in the roll out of best practice to take advantage of new systems, such as the early identification of highways defects, innovative ways of repairing them, and exploiting digital data about highways condition and traffic patterns.
- Inadequate funding has led to low margins, less competition and adversarial contracts in the market for highways maintenance. We need to tackle this through innovative procurement and greater collaboration with providers and their supply chains to achieve better contracts, and deliver better value for money.

What ADEPT will do to help overcome barriers to improving the condition of local roads infrastructure

- **Work with the DfT and the industry to produce technical guidance for local authorities and road operators.**
- **Submit written and oral evidence to the Transport Select Committee's inquiry into local roads funding and governance.**
- **Work with the DfT and others to lead on research and innovation to make best use of the emerging digital and other technologies.**
- **Work with the DfT and the industry to develop funding policy options for discussion with Ministers that give a greater emphasis on 'place' and move away from multiple separate funding streams.**
- **Bring together DfT, Highways England, councils, corporate partners and trade associations to identify key barriers and develop interventions to tackle them.**
- **Explore with the DfT, other Government departments, corporate partners, trade associations and the industry how to best achieve value for money through the procurement process and service delivery models.**
- **Identify how local highway authorities can achieve enhanced service delivery through our work with the Future Highways Research Club and Proving Services Limited.**

Introduction

The condition of our local roads is poor, and getting worse. One in five of them are in a structurally weakened condition, and there is a £9.3bn repairs backlog that continues to increase as annual funding falls short of what is needed to maintain the status quo¹. Councils are not winning the battle against potholes, and motoring organisations report record level of callouts for pothole-related vehicle breakdowns².

Public and media interest in the state of our local roads tends to peak following the extra damage caused by extreme weather. When this happens – as it did following the severe winter of 2017/18 – the Government responds with a one-off allocation of extra funds, such as the £100m in March 2018 from the Pothole Action Fund. Councils, motoring organisations and industry associations all agree that this was inadequate, and merely addressed current symptoms (potholes) rather than the root cause (poor condition).

Yet the Government's own Transport Investment Strategy, *Moving Britain Ahead*, published in July 2017, recognises the importance of maintaining and improving the condition and performance of the existing highways network:

¹ Asphalt Industry Association Annual Local Authority Roads Maintenance (ALARM) survey

² The RAC reported in July 2018 that the number of callouts over the previous three months for pothole-related breakdowns was the highest for the second quarter of a year since 2015. <https://www.fleetnews.co.uk/news/fleet-industry-news/2018/07/16/pothole-related-breakdowns-increase-says-rac>

“Effective stewardship of the network requires us to maintain and renew our assets to keep them working safely and effectively, and to improve reliability and performance for the travelling public. This can prolong the life of our assets and control future costs. More importantly it gets to the heart of what users want.”

In addition, the DfT’s Road Investment Strategy (2014) showed that maintenance and renewal schemes can offer significant value for money, with an average return of £13 for every £1 spent. It recognised that an investment of approximately £1bn each financial year in local road maintenance doesn’t just make sound economic sense, but also contributes to the Government’s wider objectives of reducing fuel consumption, transport emissions, and noise pollution.

This disconnect is the heart of the problem – the difference between a rational departmental strategy that recognises the economic and environmental case for spending to maintain local roads, footways, bridges, lighting, drainage and other highway assets, and the reality of centrally imposed spending cuts that lead inevitably to a continued deterioration.

ADEPT position and key issues

Highways are a universal service, available to everyone and used most days by most of us. They are visible and tangible, so are a high priority for the public, professionals and politicians both locally and nationally. For the people and businesses using the network, surveys tell us that journey reliability and quality are key priorities. Good local roads are an important part of successful places, where communities can thrive and businesses can operate productively.

Most journeys start and finish on local roads. But in addition to their poor condition and continuing deterioration, they are becoming more congested. The Local Government Association has highlighted 2.5million more vehicles on the road network, a 7.7% growth in traffic volume in the last five years³.

We agree with roads organisations and the maintenance industry about the fundamental importance of reliable and efficient local roads both for business of all sizes, and in supporting economic growth. We support the DfT’s aspirations for the effective stewardship of the network - maximising its lifespan and value, and the economic benefit derived from investing in the repair and maintenance of all elements of highway infrastructure.

For ADEPT there are four key issues:

- **Funding** – the maintenance of the local roads network must be adequately funded, with some certainty about forward funding, so that councils can plan and manage their maintenance programmes, and with a fairer balance of funding between local and strategic roads.
- **Asset management** – the asset management tools and practice are in place to manage highway infrastructure nationally – but there appears to be no clear plan to bring it up to standard over a defined timescale, and at which it can be optimally maintained.
- **Digital innovation** – to improve early identification of defects, enable smart repairs, and improve communications with customers.
- **Procurement and collaboration** – effective procurement and contract types that stimulate competition to drive best value, while offering contractors a reasonable margin.

³ <https://www.local.gov.uk/about/news/warning-growing-national-congestion-crisis>.

Funding

Councils manage some 300,000km of local roads (a figure that continues to grow), in comparison to the 7,000km of strategic roads managed by Highways England. Every indication shows that the funding for local roads maintenance is inadequate – borne out by the rapidity of road surface failure through the 2017/18 winter from repeated freeze / thaw cycles, on a network experiencing high groundwater levels. Funding is proportionately low compared to spending on strategic roads and motorways – national roads and motorway maintenance receive 52 times more funding per kilometre, than local roads.

The Centre for Economics and Business Research study, published in February 2017 and commissioned by the FairFuelUK campaign, discovered the UK spends nearly nine times more money on rail than on roads per mile. The study also showed that Britain's roads ranked only 27th best in the world for quality. Whilst there is planned improvement for the Strategic Roads Network (SRN), local roads maintenance continues to be in long-term crisis.

Local roads are a significant national asset that need long-term management and investment. The funding regime must be fit for this purpose, but the current system is not, with multiple sources of funding that are not co-ordinated. Consequently, this means:

- **Too many funding pots** with different timescales adds multiple risks into medium-term financial planning.
- **No clear plan** for the long-term evaluation of overall investments.
- **Disproportionate impact** of revenue cuts that cannot be offset by capital investment.
- **Overuse of bidding and competition**, diverting scarce revenue resources away from managing the network.
- **Lack of substantive devolution of powers and funding** to develop collaborative and innovative solutions.

Ad hoc, short-term injections of Government funding, such as the emergency funding announced in March 2018 following extreme winter weather, are not sufficient or strategic. In his Budget statement in October 2018, the Chancellor announced £420m for potholes, bridge repairs and other minor highway repairs, but at the time of writing it is unclear how much of this is 'extra' funding, how it will be spent, or in what timeframe. While we welcome this announcement, it remains disproportionate to the needs of local roads and to the funding of the strategic roads network.



The funding regime needs to be reviewed, simplified and aligned with both asset management strategies and the performance standards that are required of our local roads. The way forward is to tackle the maintenance backlog, then stabilise funding. To do this, we need more devolved decision-making to councils where local accountability lies.

This requires strong leadership and broad political commitment to a long-term approach. Investment must be evidence-based, planned and preventative, rather than a reactive sticking plaster. As well as leadership and communication, we need to improve asset and data analysis, performance measurement and benchmarking, skills, programming, procurement and supply chain collaboration. Public satisfaction remains low, so improving the condition of our roads is a high priority for residents. In addition, roads in good condition support our economy and facilitate growth, benefitting all.

The next Comprehensive Spending Review for 2020/25 is an opportunity for change. We will talk to Government about practical ways forward, such as increasing the new Roads Fund for SRN and Major Roads Network (MRN) investment to include a contribution to local roads expenditure. We will seek further devolution of funding to councils and strategic partnerships and, where there is a case for retaining a competitive bidding process for some funding, we will seek to agree the rules and criteria well in advance, so that bidding is less expensive.



Asset management

Asset management is a well-established discipline for highways. The adoption of asset management principles has meant local highways authorities can demonstrate clear benefits in terms of financial efficiencies, improved accountability and stewardship, better value for money and improved customer service.

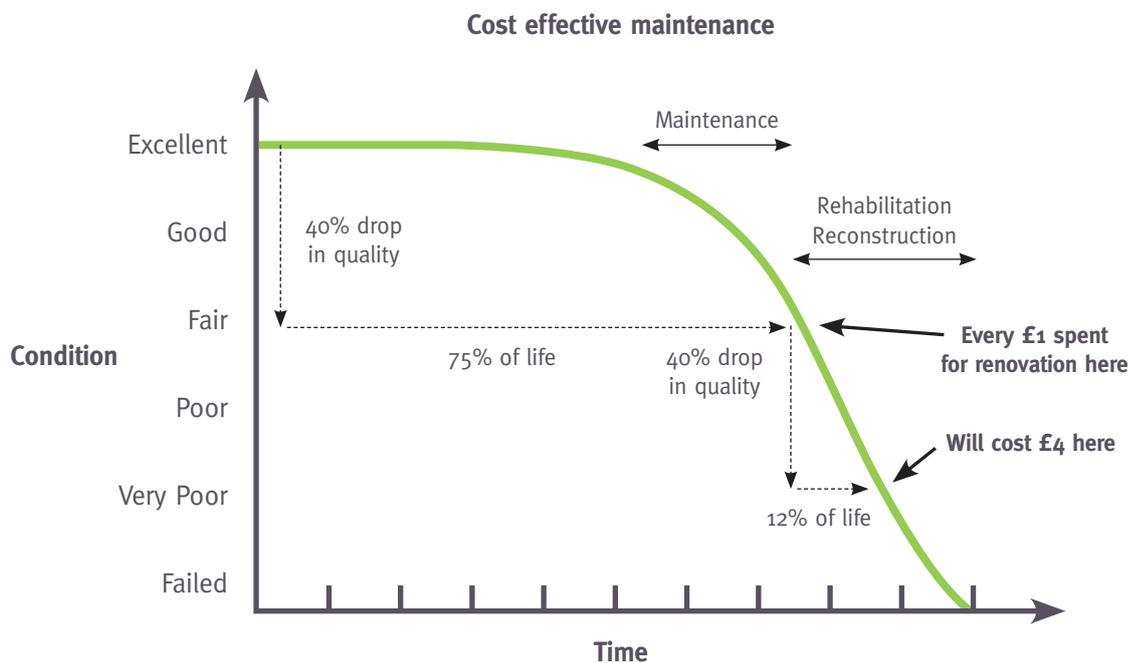
ADEPT is a member of the UK Roads Liaison Group (UKRLG), which brings together national and local government from across the UK with the Chartered Institution of Highways and Transportation (CIHT) to consider roads infrastructure, engineering and operations matters. In February 2016, the UKRLG

published the new code of practice, Well-Managed Highway Infrastructure, replacing three separate codes of practice for highways, bridges and street lighting.

The HMEP Highway Infrastructure Asset Management Guidance sets out a consistent approach for the delivery of asset management. It provides a baseline against which local highway authorities can review existing practices, helping them to achieve the greatest value from their highways assets.

The asset management framework established by HMEP is a major strength, with the DfT's Incentive Fund encouraging implementation through a self-assessment process. However, funding is not linked to strategies, and there is a tension between local accountability and centralised decision-making. Although there are varying levels of appreciation of the importance of asset management, building political support remains essential. Whilst many local councils are investing their own funding to supplement Government allocations, even collectively this will not overcome the historic backlog and enable the 'steady state' to be reached. The necessary development of asset management plans has not only helped to highlight the funding gap, but also the increasing capacity and skills gaps that need to be similarly addressed.

Current replacement cycles are much longer than the design life of all forms of highway infrastructure – the annual ALARM survey only covers one aspect of this. Revenue funding is increasingly inadequate for the level of routine maintenance needed, often disguised by capital allocations. In simple terms, prevention is better than cure – early maintenance during the third quarter of the design life of the asset is more cost effective than the reconstruction that is required a little later, as the graph below shows.



Digital solutions and innovation

Big data, artificial intelligence and the Internet of Things are going to change highways asset management. Current and emerging projects will help clarify the extent to which automation can positively impact on decision-making, and will enable early intervention when repairs are much cheaper.

The local highway authorities that were successful in their Department for Transport's *Funding for Innovation: Connected Vehicle Data* competitive bids can now forge ahead with their research. However, as is the case with many of these funding competitions, it was heavily over-subscribed. Many local highway authorities will have invested time, money and effort in vain, and numerous research opportunities may ultimately be lost.

Both technology and digital innovation offer new opportunities and challenges for highways maintenance, with ADEPT already very active in this field. There are possibilities to use technology such as 'pothole spotters' that identify defects early so that they can be repaired more readily and cheaply, 'digital inspectors' that reduce the need for human inspection, and also to trial new ways of repairing defects (e.g. the Leeds drone pilot project).

The DfT has funded 'pothole spotter' research with three councils (Thurrock, Wiltshire and York). Instead of traditional visual inspections and responding to customer reports, it offers a smarter way of working by collecting images of road surfaces using high definition cameras mounted on the front of refuse collection vehicles that travel across the entire local roads network. These images can be used to detect early signs of deterioration and enable preventative work to stop potholes developing. The images also help to monitor the condition of road signs, kerbs and footways, and to check the reinstatement work done by utilities companies.

Other opportunities to use and exploit digital data about highways conditions and traffic patterns gathered by equipment on the network will emerge, as well as risks that these could generate more defects reports, and therefore create more pressure for reactive work. Ensuring that local (and national) roads are built and maintained to standards that enable the development of connected and autonomous vehicles – such as driverless cars – and particularly, their applicability outside of urban environments, will present further challenges.

Spending limited resources on fixing potholes is not cost effective, often drawing funding away from other key elements of linked highway infrastructure such as bridges and drainage systems. The end-to-end cost is higher than just the operational process – it's the whole customer interface / reporting / ordering system too. A digital platform helps improve communication with road users and provides a single application that can be used by customers, inspectors and operatives. Some leading-edge councils are using applications that are highly configurable and can automate processes based on repair category, supporting information, geographical location, status, priority, and owner – a single system for end-to-end defect management with real time updates.

Through the 'SMART local highways and AV live labs' initiative, ADEPT is working with the DfT on a £25million, 2-year project designed to bring digital innovation to local roads. The intention is to encourage creativity and innovation through the deployment of SMART materials, use of SMART communications, adoption of SMART energy solutions and enabling SMART mobility – delivering 'future-proofed' outcomes for local network needs.

Procurement and collaboration: what do highway authorities want from suppliers?

The focus in Government and councils' thinking is shifting from 'efficiency' to 'innovation', but the market is not as responsive as it might be. Very few big contractors are funding new ideas from SMEs. This may reflect low margins in the industry and a risk averse approach, with service providers perhaps reluctant to let go of tried and tested methods and technologies, and worried about short-term gains. The challenge is to find a way of better funding and co-ordinating innovation in the industry.

Councils also need their service providers to be sensitive to the fact that they are political organisations – democratically elected local authorities. Such providers, whether in-house service delivery organisations, private sector companies or a blend of both, have to show that they are flexible and responsive as part of the deal. A key element, though, is the ability to identify and secure value for money services. To support this, ADEPT will be working in partnership with Proving Services Limited. The new programme will benefit, potentially, all local highway authorities through the use of Proving's value for money assessments, and the Future Highways Research Club.



- ADEPT members are the place-making strategists and policy shapers across top tier local authority areas
- ADEPT members are specialists, delivering services and sharing best practice across key sectors including environment, planning, housing, transport and economy
- ADEPT members design strategies for the future, taking communities beyond 2035
- ADEPT members operate in networks, cutting through boundaries to work with partners across the political, public, private and community sectors
- ADEPT members provide opportunities to develop new talent, supporting the Place Directors of tomorrow

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