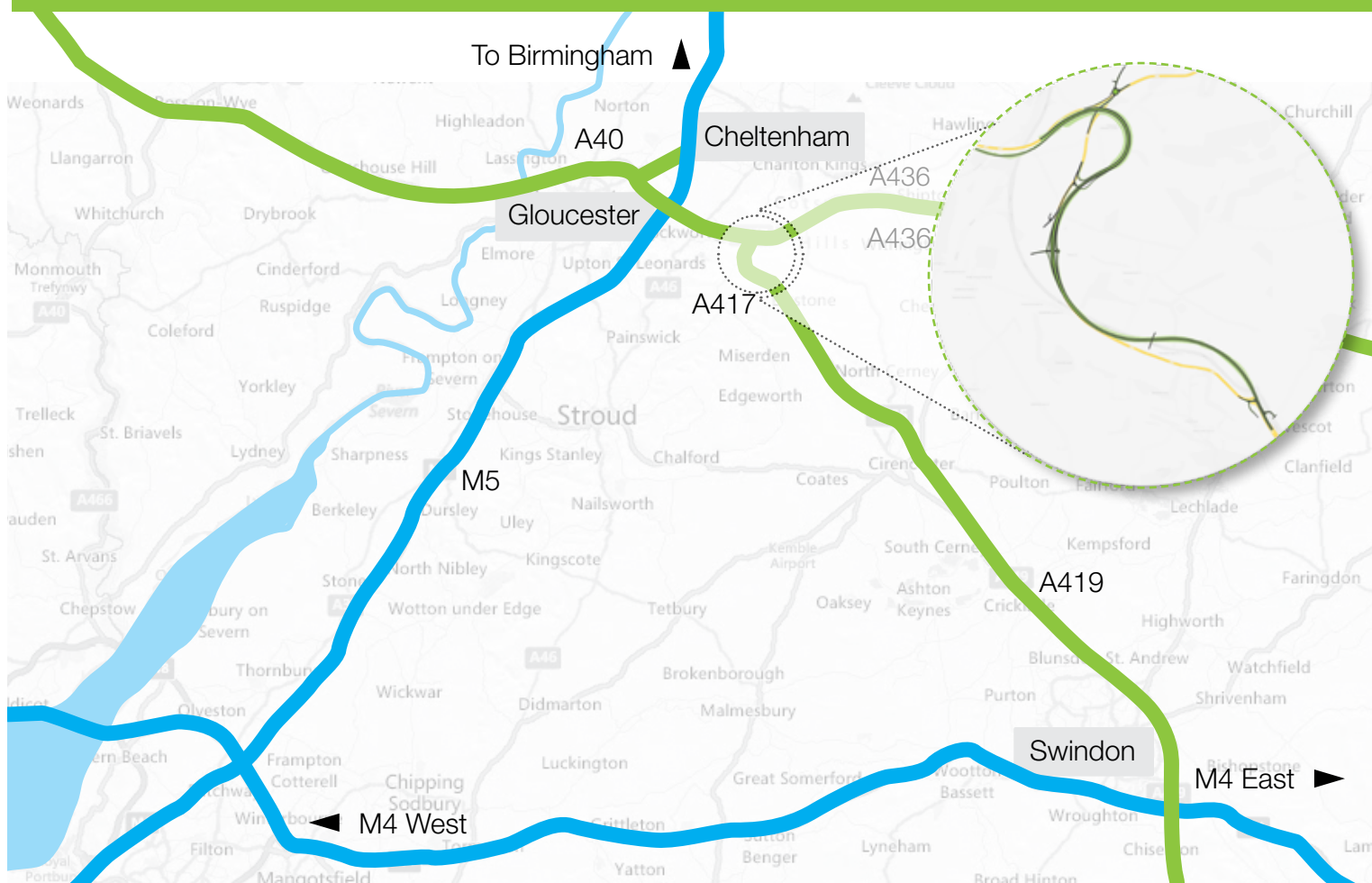


The **A417** Missing Link

Linking the M4 to the M5



From Gloucestershire Local Enterprise Partnership and Gloucestershire County Council

CONTENTS

- 3 Foreword / Pledge
- 4 The Problem
- 6 What We Want / The Solution
- 8 The Economic Impact
- 10 Connectivity Research in Gloucestershire 2013
- 11 Case Study
- 12 Timeline



FOREWORD

For more than 20 years, Gloucestershire and surrounding counties have been looking for a solution to the ‘Missing Link’ on the A417. The 5km stretch of road, near Nettleton Bottom, is the only single carriageway along the strategic 50km route between the M4 and M5.

The route is a key link between the West Midlands and London and is used daily by more than 34,000 vehicles. The ‘Missing Link’ is often very heavily congested and there are frequent accidents, affecting people across Gloucestershire and further afield.

Gloucestershire County Council has consistently campaigned for something to be done to address the problem, which is seriously affecting our local economy and, more importantly, people’s safety. Recent fatalities on the ‘Missing Link’ are a tragic reminder of why we need to act now.

The A417 loop scheme, the only workable solution to this problem, is not currently included in any national infrastructure delivery programme despite more than 20 years of investigations.

We’ve worked with the Highways Agency (HA) which has invested its time and money into finding the right solution – now we need that solution to be implemented.

Gloucestershire is firmly behind the A417 Loop scheme. We now need the government to get behind Gloucestershire and we’re calling for the A417 loop to be included within the HA’s major scheme development programme for delivery as a matter of urgency.

Pledge

I support Gloucestershire County Council’s campaign and I am calling for the A417 loop to be included within the Highways Agency’s major scheme development programme for delivery as a matter of urgency.



Cllr Mark Hawthorne MBE
Leader, Gloucestershire County Council



THE PROBLEM

The majority of the 50km long, A417 / A419 Trunk Road route between M4 (Swindon) and M5 (Gloucester) is high quality dual carriageway. The road carries an average of 34,000 vehicles per day - 14% Heavy Goods Vehicles. It is maintained by the Highways Agency (HA) as part of the Government's Strategic Road Network (SRN).

Over the last 20 years improvements have been made to the road, including grade separated junctions at Swindon, the Blunsdon Bypass, the North of Stratton to Nettleton Improvement, Latton and Cirencester bypasses and the Brockworth Bypass. Just one 5km section of single carriageway of the 50km A417/A419 remains, between Brockworth and Cowley. This section is known as the A417 Loop and features two roundabouts, a number of junctions and local accesses and steep gradients at Crickley Hill and Nettleton Bottom. There are congested pinch points at Air Balloon roundabout and Nettleton Bottom.

There are a number of key issues with the A417 Loop

Safety concerns for road users

There have been 343 casualties on the section of A417 Loop since 1998. This includes eight fatalities and 39 serious injuries. The number of collisions on the A417 Loop represent half of the collisions on the whole length of the A417/A419 trunk road within Gloucestershire, yet represent less than 20% of its length. Previous studies have shown that many lorry breakdowns, particularly engine and brake fires, elsewhere on the route have almost certainly started on the A417 Loop.

Major congestion and delays

The Air Balloon roundabout is a key junction on the A417/A419 between Swindon and Gloucester and causes much of the congestion on the A417 Loop. Traffic queues on all three arms of the roundabout during peak hours and journey time delays of 20 minutes and more on the A417 in both directions is commonplace. The two way annual average daily traffic on the A417 is currently 34,200 vehicles per day on Crickley Hill, and

28,700 vehicles per day on the link towards Swindon.

Significant financial costs to businesses

A number of surveys have been carried out to understand the impacts of the A417 Loop on businesses. They concluded the A417 Loop is the most detrimental congestion hotspot within the county. Freight operators said the single carriageway section of the A417 was the least reliable section of the Gloucestershire network in terms of journey reliability and congestion, impacting upon operating costs.

Air quality and noise problems

Cotswold District Council declared an Air Quality Management Area (AQMA) in 2008 in respect of nitrogen dioxide at the Air Balloon roundabout junction. The elevated levels of nitrogen dioxide pollution are due to traffic emissions at the Air Balloon junction caused by queuing traffic and a high level of slow moving HGVs.

Severance

The lack of a segregated trunk road network for the A417 Loop results in the severance of local communities and national footpath trails in the heavily used Cotswold Way. Local accesses on to the A417 Loop currently face either severe congestion during peak hours, or fast moving traffic and difficulty of access in the off peak hours.

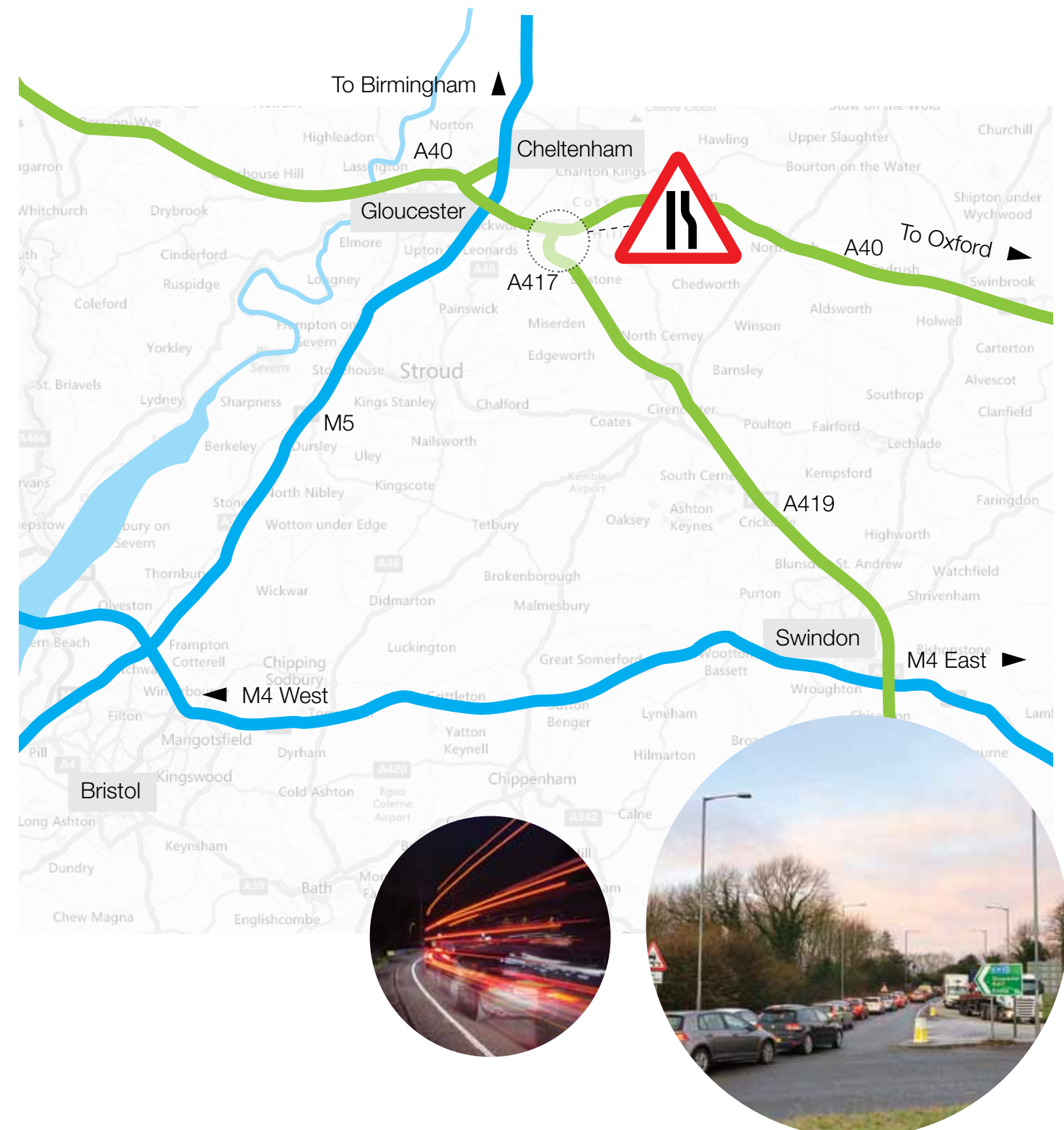
Future pressures

The emerging Draft Joint Core Strategy for Tewkesbury, Gloucester and Cheltenham alone proposes over 33,000 new homes for the period to 2031. This will put significant additional pressure on this already weak link on the route between the M5 and the M4.

343 casualties
39 serious injuries
8 fatalities

1998-
mid 2013

Just one 5km section of single carriageway of the 50km A417/A419 remains, between Brockworth and Cowley



WHAT WE WANT

The Highways Agency has explored numerous options to deal with the problems ranging from £1billion tunnels to low cost temporary measure to re-route traffic. Ultimately, the HA has concluded that the only workable option is the A417 Loop scheme, which was developed and agreed by statutory environmental bodies as the best option, in 2003.

Work to introduce the A417 Loop scheme would cost in the region of £255 million and a lack of funding has prevented the work taking place to date.

What we want is for the government to get behind Gloucestershire and add the A417 loop scheme to the HA's major scheme development programme for delivery as a matter of urgency.

The solution

The A417 loop is a short bypass of Nettleton Bottom, widening of Birdlip Bypass, a new junction at Birdlip, a new junction replacing the Air Balloon roundabout and construction of an additional two lane carriageway down Crickley Hill adjacent to the existing road.

Remodelled accesses to properties at Cold Slad and along Crickley Hill would be provided and a local road created, linking Birdlip, Cold Slad, the Leckhampton road and the A436.

The Birdlip to Cowley Link scheme will

Provide a grade-separated dual carriageway from Brockworth to Cowley

The scheme comprises a short bypass of Nettleton Bottom, widening of Birdlip Bypass, a new junction at Birdlip, a new junction replacing the Air Balloon roundabout and construction of an additional two lane carriageway down Crickley Hill provided in an adjacent carriageway separated from the existing road. Remodelled accesses to properties at Cold Slad and along Crickley Hill would be provided and a local road created, linking Birdlip, Cold Slad, the Leckhampton road and the A436. Vehicles travelling between the M5 and the M4 would travel without interruption.

Reduce the likelihood of collisions

Of all of the options investigated by the Highways Agency, this scheme produced the biggest reduction in accidents, bringing the biggest benefit.

Reduce the likelihood of congestion

There would be a long term improvement in traffic flow and reduced congestion along the route. In turn this would reduce the level of rat running through local villages and rural areas.

Provide high value for money

Journey time and accidents are reduced providing a total benefit cost of some four times the cost of constructing the scheme. This provides a Benefit to Cost Ratio (BCR) of over 4:1. This is a high BCR and is considerably higher than that achieved by other solutions considered for the route.

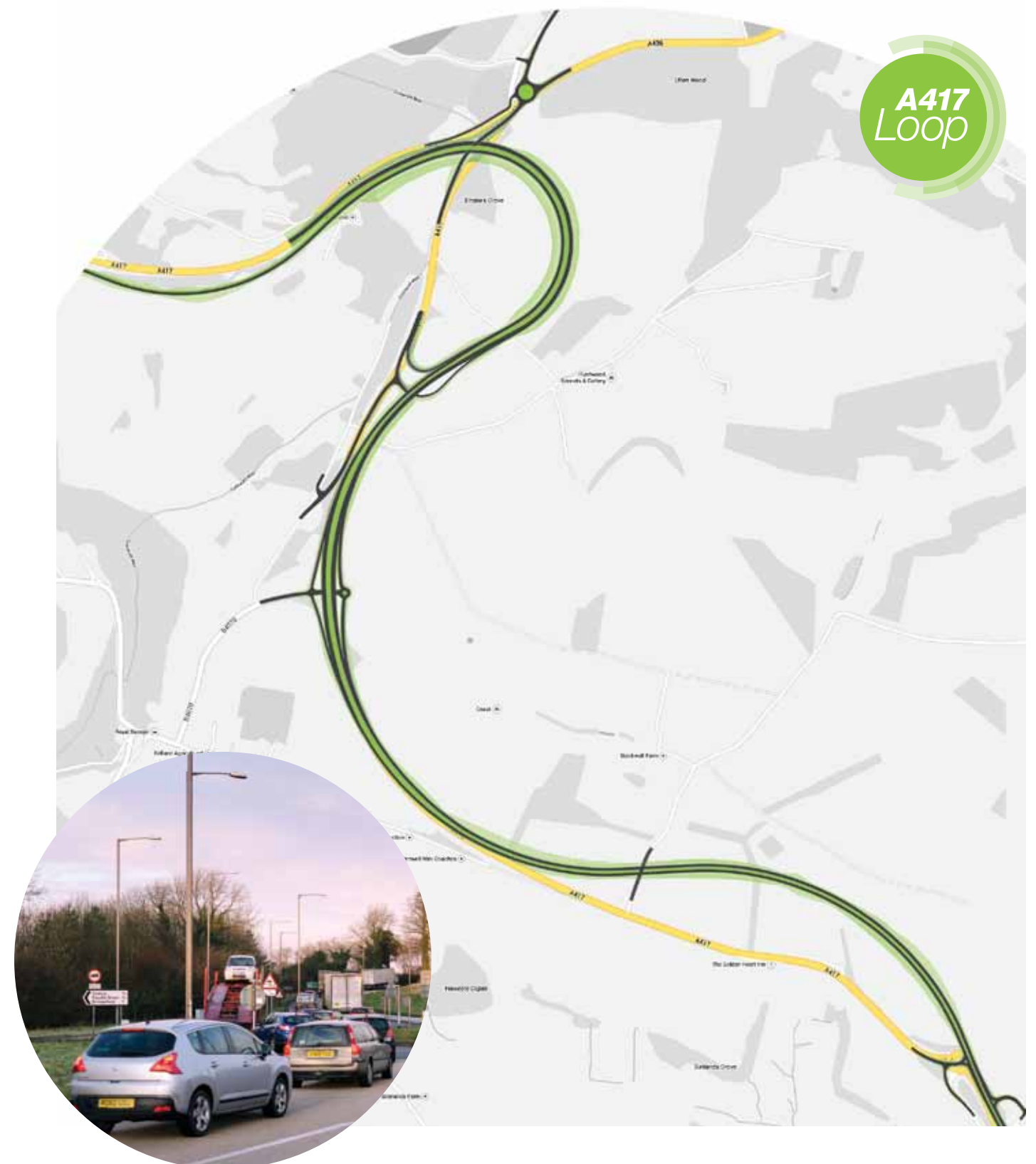
Provide wider economic benefits

Wider economic benefits will include reducing business costs, providing journey time reliability for deliveries and commuters, widening markets for goods/labour and creating construction jobs.

Provide network resilience

The A417/A419 provides a key route between the M4 and M5 linking the Midlands with Swindon and London. It also plays an important role in providing an alternative route to M4/M5 in the event of congestion/incidents on this route.

The A417/A419 provides a key route between the M4 and M5 linking the Midlands with Swindon and London



THE ECONOMIC IMPACT

A number of economic studies have been carried out over the past four years to identify the problems caused by the A417 Loop to local businesses and the effects on economic growth.

Stage 1 Study	Delivering a Sustainable Transport Strategy (DaSTS) South West Regional Assembly • June 2009
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This study looked at the connectivity of the nine main growth areas across the South West Region. Cheltenham/Gloucester and Swindon, located at each end of the A417/A419 corridor, are two of these growth areas. It focussed on the importance of the transport system in supporting the Regional Economic Strategy.

As far as the A417 is concerned, journey time unreliability was sited as preventing just in time meaning businesses cannot rely on their stock turning up when they need it. This issue also prevents Gloucestershire businesses from competing with Thames Valley businesses because of the connectivity issues.

Key conclusions

Within the south west region, Swindon is rated third and Cheltenham/Gloucester fourth in the table indicating the importance of transport to the local economy, implying that there is a strategic importance for the A417/A419 corridor to the local economy.

The Department for Transport indicator on journey time reliability identified the A417/A419 corridor between Swindon and Brockworth as having the worst average vehicle delay of all strategic routes in the South West and a higher delay than the national average.

Addressing issues on the A417/A419 corridor was seen to be of regional importance in economic terms.

A 2009 study of connectivity problems in the south west concluded the Gloucester/Cheltenham to Swindon corridor was of relatively high economic importance in terms of the regional economy.

Worst average vehicle delay
of all strategic routes in the South West



Phase 1 Report	Cheltenham and Gloucester Connectivity Study Atkins Transport Planning and Management • May 2010
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This study focussed on connectivity issues relating to Cheltenham and Gloucester, including the A417/A419 to Swindon corridor. The study area was focussed on Cheltenham and Gloucester and the area of Tewkesbury that lies between the two communities.

Key conclusions

Traffic modelling shows that with forecast growth, the Air Balloon roundabout will be operating more than 30% over capacity by 2026.

A business survey (201 businesses) indicated that:

- The A417/A419 corridor is an important transport corridor for 80% of respondents
- The A417 Air Balloon roundabout was identified as a particular congestion hotspot

Freight operators and organisations identified the single carriageway section of the A417 as the least reliable section of the Gloucestershire network in terms of journey reliability and congestion, impacting upon operating costs.

The A417/A436 roundabout at the Air Balloon was also identified by operators as being particularly dangerous, whilst the approach on Crickley Hill was felt to be a particular problem during adverse weather conditions in winter.

Freight operators also pointed out that when problems occur on the A417 Loop - records show on average major incidents occur around six times each month - traffic, including lorries, divert onto local, often unsuitable, roads to bypass the problem, causing environmental and safety problems.

They also stated that when breakdowns occur, the steep gradients and congestion makes recovery slow and complicated, causing further disruption.

They **supported the A417 Loop** as the best way to tackle the problems, but recognised it is a long term scheme due to the high cost involved.

Air Balloon roundabout forecasted to be running 30% over capacity by 2026

WHAT BUSINESSES SAY

CONNECTIVITY RESEARCH IN GLOUCESTERSHIRE 2013

Nearly 300 businesses were surveyed in 2013 to identify the economic impacts of deficits in the Strategic Road Network on Gloucestershire businesses and beyond. Businesses in Gloucestershire, Swindon and Wiltshire, and Worcestershire were invited to take part.

Overwhelmingly the A417 Loop was noted as an issue by the majority of businesses. This route provides a critical link from businesses operating in the

Swindon area to the M5 and destinations further north, and vice versa.

In addition the current congestion issues at this location were noted as a problem for road access between Gloucestershire and London, which negatively impacts on inward investment into our county.

Congestion on the A417 Loop was regularly noted as a key issue not only for business

operation but also for their staff commuting. A number of consultees said the problems were not just congestion and delays, but also the lack of reliability of journey times. Delays at this location impacted on logistics and others relying on delivering goods to customers further north along the M5 corridor and beyond.



68%

of respondents said that the A417 Loop was 'significant or very significant' to the operation of their business



70%

of respondents said that the A417 Loop congestion had a negative impact on their business

case
study

Mark Owen

Chairman Federation of Small Businesses
Gloucestershire and West of England Region



Through my role, I make the journey on the A417 between Birdlip and Cirencester on a regular enough basis to feel frustrated by the delays that always seem to dog the Nettleton Bottom stretch of single carriageway.

I can remember the time when this single carriageway extended all the way from Birdlip to Cirencester, with its seemingly endless series of blind summits making overtaking an impossibility for all but the suicidal.

The current road is a vast improvement making commuting to Cirencester and all points beyond a practical possibility – all but for this small stretch.

It means that when I visit a client in say Cricklade or Swindon or the FSB regional office in Cirencester I have to allow extra time for negotiating Nettleton Bottom, taking up valuable time and adding to personal stress and extra petrol costs. The alternative, which I have used on occasions is the train – which again racks up extra costs for the business. Add the road's appalling safety record and it's easy to see why business drivers will go out of their way to avoid this stretch of the A417, which must have a detrimental impact on businesses either trading out of Gloucestershire or into it.

Opening up this stretch as a dual carriageway would have an immediate beneficial effect not just in Gloucestershire but much wider afield.

In my FSB work I meet many business people who share my concerns and who are convinced that improving this aspect of our infrastructure would be good for their business.

Having driven extensively in Europe and having seen the levels of civil engineering that has been brought to bear on some of the geographical obstacles they have to contend with, I find it absurd that this small tract of rolling Cotswolds countryside should have defeated us for so long.

If you take a look at how the French, Swiss, Germans and Italians have tamed the mighty Alps with gravity defying roads, bridges and tunnels, we should hang our collective heads in shame over the Nettleton Bottom fiasco. Just check out Italy's Stelvio Pass on Google and you will see exactly what I mean.

I suspect that if Isambard Kingdom Brunel or Thomas Telford were alive today they could knock out a viable Nettleton Bottom scheme on the back of a fag packet.

At the end of the day it comes down, not to engineering problems, but expense. Sorting out the A417 will cost money, that has never been in doubt. We just need the powers that be to bite the bullet and get on with it.

I would urge all businesses large and small to get behind this campaign and pledge their support by visiting www.a417missinglink.co.uk

Opening up this stretch as a dual carriageway would have an immediate beneficial effect not just in Gloucestershire but much wider afield.

A417 LOOP TIMELINE

In 1998

Dual carriageway improvements completed over 80% of M4/M5 link, establishing strategic route.

In October 2001

The Highways Agency appointed consultants to undertake an environmental study to examine potential options to improve the section of road known as the A417 Loop.

In 2003

The HA published the results of this work: an options report, The A417 Cowley to Brockworth Improvement Study Report March 2003, which supported the dualling solution for the A417 Loop. The study had also considered the potential for a tunnel, but this was abandoned on the grounds of cost, estimated at £1billion, and severe environmental impacts. The Environment Agency submitted a holding objection for the tunnel option that could not be resolved.

Between 2004 and 2006

work continued by the HA's consultants to refine the surface route improvement, which was concluded as the best solution in the 2003 work. The Stage 2 Community Consultation report-March 2006-concluded that Option D, the 'modified A417 Loop' should be taken forward.

In 2005

The government undertook a review of the motorway and trunk road network in England, classifying routes as being either of national or regional importance. The A417/A419 was categorised as being of regional importance, with funding for any major transport schemes to be found from the south west region's funding allocation.

In 2006

When setting out its priorities for investment into major transport schemes, the Region informed Ministers that the A417 Loop

major scheme should be a longer term priority and not included within the 10 year forward programme of schemes to be delivered by 2015/16. However, in recognition of the need to improve this A417 Loop on the A417/419 corridor, the South West Regional Assembly requested that the HA examine the possibility of a lower cost solution. Work began on the lower cost scheme review.

In October 2006

Geoffrey Clifton-Brown MP debated the A417 Loop proposal in the House of Commons with the then Secretary of State, Dr Stephen Ladyman. When referring to the A417 Loop scheme Geoffrey Clifton-Brown said: "For the first time, importantly, the Highways Agency had a major scheme design, and the Countryside Agency, the Environment Agency, English Nature and English Heritage were all content to see it proceed to

For the first time, importantly, the Highways Agency had a major scheme design, and the Countryside Agency, the Environment Agency, English Nature and English Heritage were all content to see it proceed to the next stage.

Geoffrey Clifton-Brown MP

the next stage: entry into the targeted programme of improvements.

In 2008

The HA released the bypass review report and concluded that there were no lower cost solutions which would be capable of providing long term safety and congestion benefits between Cowley and Brockworth. The work confirmed that the major scheme proposals known as the A417 Loop is the only solution.

In 2010

Workshops led by HA, and a report was produced to identify short term, low cost measures to improve the route.

2010/2011

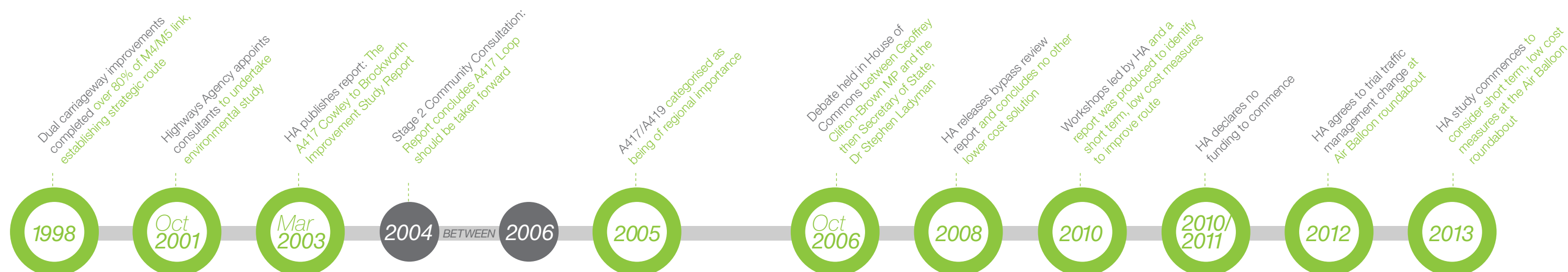
The HA declares it has no funding to commence; even for the low cost measures identified in its report.

2012

The HA agreed to trial a traffic management change at the Air Balloon roundabout. This is subsequently abandoned in spring 2013.

2013

HA commence a study to look at short term, low cost measures at the Air Balloon roundabout.





The **A417** Missing Link