



## **Strategic Transport Forum**

27<sup>th</sup> November 2020

### **Agenda Item 7: Strategic Road Network Investment - Route Strategies**

*Recommendation:*

**It is recommended that the meeting:**

- a) Notes Highways England's commencement of work for the next Roads Investment Strategy (RIS3) period through Route Strategies.**
- b) Acknowledges the ambition of Highways England to work collaboratively with STBs and provides a framework for achieving that within the Heartland region**
- c) Supports the priorities for Route Strategies as set out in paragraphs 4.3 to 4.5 of this paper**

#### **1. Context**

- 1.1. The Department for Transport has identified that a key role for Sub-national Transport Bodies should be to set regional priorities for transport. This includes working with national infrastructure owners/operators to ensure that their investment programmes are aligned with regional priorities.
- 1.2. Forum Members will be aware of the successful partnership between England's Economic Heartland and Network Rail. The relationship has been built on a shared early study approach; identifying the region's infrastructure priorities of the rail network by setting the 'strategic questions' to answer; and then drawing on the knowledge and experience of the Network Rail team to provide advice on which EEH can build.
- 1.3. Through this approach, EEH and Network Rail have been able to identify shared priorities. The creation of England's Economic Heartland's successful collaboration with Network Rail led to a report of such high impact locally, regionally and nationally that it is able to inform future investment priorities in a clear and focused way. This way of working is seen as a model of good practice between an STB and Network Rail.
- 1.4. Highways England is now beginning to plan to take forward its work on 'Route Strategies'. The Route Strategy process provides Highways England with the opportunity to work collaboratively with STBs in defining strategic priorities for an area and to be clear about what interventions are needed where, why and when.
- 1.5. Moving forward we need to strengthen the existing working relationship with Highways England, to achieve a level comparable with Network Rail. The Route Strategy process is the opportunity for the Forum to set out to Highways England the region's priorities and to identify the strategic questions on which the Forum is seeking advice. In this way we can look to build a shared ambition and prioritised plan of action for the Strategic Road Network in the Heartland.

## **2. Context: Road investment Strategy 2 (2020 – 2025)**

- 2.1. The Road Investment Strategy 2 (RIS 2) was published by the Department for Transport in March 2020. Highways England subsequently published its Delivery Plan for RIS2 in August 2020. A summary of how RIS2 and Highways England's Delivery Plan affects the Heartland region is set out in Annex 1.
- 2.2. Included within RIS2 is clarity over Highways England's expected role for Sub-national Transport Bodies (STBs) going forward, including opportunities to cultivate existing working relationships between Highways England (HE) and STBs.
- 2.3. England's Economic Heartland welcomes the commitment to joint working, particularly noting the significant opportunities that an integrated approach will bring in terms of responding to decarbonisation and delivering agreed outcomes.

## **3. RIS 3 Preparation - Route Strategy development**

- 3.1. In parallel to delivering RIS2, HE has commenced work to start preparing its investment prioritisation for RIS3. A major first step in the process is the development of Route Strategies.
  - 3.2. Previous Route Strategies were published in 2015 and 2017: Annex 2 shows the issues, opportunities and investment priorities in the EEH region identified by them.
  - 3.3. The proposed approach for the next iteration of Route Strategies consists of 3 phases: baseline review; future vision and interventions; and delivery options. EEH (along with other STBs) has been asked for early input and feedback on this approach.
  - 3.4. The process for Route Strategies requires approval by the Department for Transport and Secretary for State. HE is currently operating in advance of approval, meaning the current process is merely the planning phase rather than the start of the Route Strategies themselves. Working with Highways England at this early stage provides a real opportunity to shape a strategic partnership going forward, one that can deliver nationally significant Route Strategies while at the same time adhering and respecting regionally-set priorities for the transport system as a whole.
  - 3.5. Learning from our experience with Network Rail, EEH Business Unit is looking to work with Highways England to co-design the work on Route Strategies in the region. Adopting this approach will result in:
    - i) A shared purpose for the work and a clear output
    - ii) Clarity and agreement on the scope of work by all partners, including a single set of agreed strategic questions. This approach will ensure allowed focus on the key issues that need to be resolved
    - iii) An agreed governance structure, with the STB providing a point of liaison and engagement for Highways England via a steering group: the intention being that the work would report to both this Forum and Secretary of State for Transport.
  - 3.6. In adopting this approach, the Forum will be cognisant of the inter-regional and national significance of the Strategic Road Network. As is the case with railway, and indeed as is already in place for a number of road corridors across the Heartland, EEH Business Unit will continue to work with neighbouring Sub National Transport bodies as well as Highways England to explore synergies and resolve conflicts in our strategic ambitions for a particular route.
- ## **4. Route Strategies – England's Economic Heartland's Priorities**
- 4.1. In the wider context of the EEH Transport Strategy, Forum members will be mindful of the need for a different and renewed ambition for the Strategic Road Network going forward. Where historically and even in RIS2, the focus for investment was about the overall performance of the SRN in its own right, changed priorities towards decarbonisation and a whole systems approach makes this no longer fit for purpose in 2025 and beyond.

- 4.2. The principles outlined in our Transport Strategy provide a strong basis on which to begin discussions relating to a vision for the strategic road network in the region.
- 4.3. Forum Members will want to see a Strategic Road Network that:
- Puts decarbonisation must be forefront in investment priorities
  - Supports the regions wider economic growth ambitions
  - Is future ready – and being planned in a way which is designed and delivered to maximise the potential of the future of transport, as a means of both better managing and also decarbonising the transport system
  - Is considered as part of a wider transport system. This will include integration with other modes, reducing severance, and recognised that solutions to challenges on the Strategic Road Network may be better solved elsewhere (through local transport solutions, or rail investment)
  - Gives due regard to our Strategy’s Travel Road User Hierarchy – ensuring that we view our roads/highways as a space within which we have choices as to how that space is allocated for different modes of travel
  - Considers local impacts such as Air Quality
  - Encompasses strong environmental principles, including environmental net gain principles in line with those set out in the EEH Transport Strategy
- 4.4. England’s Economic Heartland has an extensive regional evidence base which should, in the context of delivering the ambitions set out in section 4.3, inform and shape the Route Strategies. As part of that, and as part of our development of the Transport Strategy, the Forum will be cognisant of the existing challenges on parts of the SRN in the region. These existing challenges are recognised barriers to the region’s economic growth and prosperity that exist in the here and now. It is anticipated that they will form a key part of any regional priorities going forward. These include (but are not be restricted to):
- A1 (East of England) corridor
  - Didcot – Oxford – Bicester/Banbury corridor
  - M1 connections to Milton Keynes south (including M1 Ju 13)
  - A47 Midlands – East of England corridor
  - A43/A45/A14 corridor, including Stanwick –Thrapston improvements
- 4.5. In addition to regional priorities for supporting strategic growth, the EEH Freight Study identified a number of key corridors that play a vital role in supporting the region’s freight and logistics sector. These are
- The M25/M1
  - The A34 and M40 north of Oxford
  - The A1 corridor (north of Huntingdon)
  - The A14
  - The A508 into Northampton

## **5. Next steps**

- 5.1. Subject to Forum views, EEH will work with Highways England to agree the way forward for developing the region’s input into RIS3. A sub-group of the Transport Officers Group will support the EEH Business Unit in this regard.
- 5.2. The process of developing Route Strategies is subsequently planned to commence from next spring (2021).

**Abigail Nichols**  
**November 2020**

**Roads Investment Strategy 2 (Implications for EEH Region)**

Road Investment Strategy 2 (RIS 2) was published in March 2020 and sets the long term strategic vision for the network for 2050, outlining the strategic vision for a strategic road network that is;

- i) A network that supports the economy
- ii) A greener network
- iii) A safer and more reliable network
- iv) A more integrated network
- v) A smarter network (new technology)

On 11 March 2020, as part of the Budget, the chancellor announced a £27.4 billion budget for investment in the SRN between 2020 and 2025. £14.2 billion will be invested in enhancements between 2020 and 2025.

Following the publication of RIS2 and budget announcements, Highways England published their Strategic Business Plan 2020-25 and Delivery Plan 2020-2025 in August 2020. The Strategic Business Plan provides high-level direction for Highways England for the second road period and setting the approach to investment 'to maintain and operate the strategic road network (SRN) safely and provides new capacity where it is most needed'.

HE's Strategic Business Plan also outlines the ambition to integrate digital technology into every aspect of project lifecycles, planning for technological advances over the next 30 years.

**Enhancements**

HE's Delivery Plan 2020-25 supports the Strategic Business Plan and covers core activities in operations, maintenance and renewals, as well as delivery of enhancement schemes.

Over road period 2 £14.2 billion of capital funding will be invested across HE's network through;

- i) Completing the enhancements started in the first road period
- ii) Starting new enhancements which look at reducing journey times, increasing reliability and improving connectivity
- iii) Continuing the Smart Motorway Programme.

Projects in RIS2 are categorised as 'under construction', 'commitments for RIS2', 'smart motorways' or 'RIS 3 pipeline schemes'. Schemes within the EEH area which were committed for the RIS2 period are;

- iv) A47 Guyhirn Junction
- v) A47 Wansford to Sutton
- vi) A428 Black Cat to Caxton Gibbet
- vii) A5 Towcester Relief Road
- viii) M25 Junction 25

RIS2 includes a pipeline of over 30 schemes for consideration in the third road period (and beyond). The pipeline is not exhaustive with £347 million of funding has been allocated over the second road period for further scoping work to help understand future demands on HE's network. Potential schemes for road period 3 will need to enter development between now and 2025. Schemes in the EEH region included in the pipeline are;

- i) M11 Junction 13 Cambridge West
- ii) A47/ A1101 Elm Road Junction
- iii) A404/M40 Junc 4 High Wycombe

Enhancement schemes were identified by HE through engagement with stakeholders, which informed Route Strategies and an investment prioritisation process which created a long list of schemes. For additional schemes to enter to pipeline there would need to be formal instruction from the DfT to Highways England or through Route Strategy work. HE has advised that it is likely a scheme can only enter the pipeline if another scheme exits.

RIS 2 also provided update on the status of two strategic studies in the EEH region.

- i) A1 East of England – The A1 East of England Stage 3 report (2016) had shown that *'congestion and safety issues on the route are not substantial enough in their own right to justify the full costs of moving the road to a new, more appropriate location. Substantial plans for local development (as proposed by the National Infrastructure Commission) has the potential to change this, and further work on the project will be considered if development becomes likely'*
- ii) Oxford – Cambridge Expressway – It was announced that further development of the scheme was being paused *'while further work was undertaken on other potential road projects that could support the Government's ambition for the Oxford-Cambridge Arc, and benefit people who live and work there, including exploring opportunities to alleviate congestion around the Arc's major economic centres such as Milton Keynes. We will work with the Ministry of Housing, Communities and Local Government and local partners on the proposed Spatial Framework to identify the role transport can play alongside the proposed economic and housing growth ambitions for the Oxford-Cambridge Arc'*

## Designated Funds

Designated Funds will also continue into the RIS2 period. The previous 6 funding streams have been streamlined into 4 funds;

- Users and Communities
- Environment and Wellbeing
- Innovation and modernisation
- Safety and congestion

During the RIS2 2 period £936 million is ringfenced for designated funds. Applications can be submitted by public, third or private sector organisations. Funding applications will have to demonstrate that the project phase funding is being sought for will complete by 31<sup>st</sup> March 2025.

Applications will need to show how they meet HE's strategic priorities for each of the funds and HE's priorities of safety, customer service and delivery as well as the strategic priorities set for each of the funds;

- i) Innovation and Modernisations Fund – applications should show how proposals meet the innovation approach outlined in HE's Innovation Hub. The fund has 5 themes – design, construction and maintenance, connected and autonomous vehicles, customer mobility, energy and the environment and operations.
- ii) Users and Communities Fund – applications should show how they meet relevant strategies such as HE's Customer Service Strategy or DfT's Cycling and Walking Investment Strategy (2017). The fund has 6 themes- integration, walkers, cyclists and horse riders, roadside facilities, communities, freight and information.

- iii) Safety and Congestion Fund – proposals should align with relevant documents such as 'Home Safe and Well' and the National Incident and Casualty Reduction Plan' (2016). The fund has 2 themes – safety and congestion.
- iv) Environment and Wellbeing Fund – applications should set out how it meets relevant strategies such as HE's Environment Strategy, DEFRA's 25 Year Environment Plan or the DfT's Road to Zero. The fund has 9 themes – biodiversity, noise, air quality, flooding, water quality, carbon, cultural heritage, landscape and environmental legacy.

In order to apply for funding, applicants are required to complete an Expression of Interest form (available on Highways England's website), where a representative of the Designated Funds team will take you through the application process.

**2017 Route Strategies Priorities**

The full Route Strategies developed for the RIS2 period can be found here: <https://www.gov.uk/guidance/future-investment-in-englands-motorways-and-major-roads#route-strategies-march-2017>

The below table represents a high level 'pull' of opportunities, challenges and investment priorities in the EEH region which were included in HE's Route Strategies. It should be noted the previous Route Strategies were published in 2017 and simply pulls together what was included at that point within Route Strategies.

Route Strategy	Challenges and Investment Priorities
<p><b>East of England</b></p>	<p>Key challenges:</p> <ul style="list-style-type: none"> <li>• Congestion at Guyhirn junction</li> <li>• A47 junction capacity issues at A15 interchange</li> <li>• High proportion of HGVs travelling on section between Thorney often create queuing and safety issues</li> </ul> <p>Investment Plans and Economic Opportunity Areas:</p> <ul style="list-style-type: none"> <li>• A47 Wansford to Sutton</li> <li>• A47/A141 Guyhirn junction</li> </ul>
<p><b>Felixstowe to Midlands</b></p>	<p><u>Key challenges:</u></p> <ul style="list-style-type: none"> <li>• Peak hour congestion at A14 junction 13, mainly on A45 approach</li> <li>• At-grade central reserve gaps are a safety risk on A14 junctions 13 to 21</li> <li>• Central reserve is prone to flooding on A14 junctions 13 to 21</li> <li>• There is a lack of hard shoulder and hard strips along the full length of the route</li> <li>• AQMA covering the A45 around Northampton.</li> <li>• Flooding issues at the A421/Beancroft Road junction</li> <li>• The A421 Black Cat junction experiences delays, congestion and an increased risk of collision</li> <li>• Significant congestion along the A421 around Bedford</li> <li>• M1 junction 13 with the A421 interchange experiences significant safety issues</li> <li>• Safety issues along the A428 corridor</li> <li>• A14 junction 33 will experience an increase in vehicles as economic growth occurs</li> </ul> <p><u>Investment Plans and Economic Opportunity Areas:</u></p> <ul style="list-style-type: none"> <li>• A14 junction 10</li> <li>• A45 Thrapston to Stanwick</li> <li>• A45/A6 Chowns Mill junction improvement</li> <li>• Oxford to Cambridge Expressway strategic study</li> </ul>

	<ul style="list-style-type: none"> <li>• A1 East of England strategic study</li> <li>• A428 Black Cat to Caxton Gibbet</li> <li>• A14 Cambridge to Huntingdon</li> <li>• Bedford–Kettering–Corby (econ opportunity area)</li> <li>• Greater Cambridge (inc. Huntingdon) (econ opportunity area)</li> </ul>
<b>London Orbital</b>	<p><u>Key challenges:</u></p> <ul style="list-style-type: none"> <li>• Noise issues near Chorleywood and Rickmansworth Safety issues on this section including junction 21a</li> <li>• Congestion restricts Watford’s growth</li> <li>• Local impact from diversionary route</li> <li>• Noise issues north-east of Watford</li> <li>• Congestion on A405 and at junction 21a</li> <li>• Safety issues on the route</li> <li>• Congestion impacts on access to Upper Lee valley, including industrial estate</li> </ul> <p><u>Investment Plans and Economic Opportunity Areas:</u></p> <ul style="list-style-type: none"> <li>• M25 junction 25 improvement</li> <li>• M25/M1 (econ opportunity area)</li> <li>• A1(M) (econ opportunity area)</li> </ul>
London to Leeds	<p><u>Key challenges:</u></p> <ul style="list-style-type: none"> <li>• Limited capacity at A1(M) junction 17 at Peterborough</li> <li>• A1 between A1(M) junction 13 and A1(M) junction 10 - there are numerous at-grade junctions and property accesses which cause congestion</li> <li>• Congestion issues at the A1 north and southbound approaches to the Black Cat roundabout</li> <li>• Limited connectivity to the local road network at M11 junctions 13 and 14 contributes to congestion at junction 13 and on the A1303</li> <li>• Flooding on the M11 close to junction 14</li> <li>• M11 junctions 10 to 13 suffer congestion and safety issues</li> <li>• Congestion at M11 junctions 9 and 9a. This is a key connection to local employment campuses which each have growth plans</li> <li>• Capacity issues at junctions 6,7 and 8 (A1) AQMAs and Noise Important Areas affect the A1(M) between junctions 4 and 8 (A1 M)</li> <li>• Flooding at A1 between junctions 6 and 7 Welwyn to Stevenage (A1 M)</li> <li>• Capacity and connectivity issues at A1(M)/A414 junction 4 and capacity issues through the Hatfield Tunnel</li> <li>• Safety issue at A1(M) junctions 1 and 2</li> <li>• The A414 joins the A1 between junctions 3 and 4 causing</li> </ul>

	<p>congestion</p> <p><u>Investment Plans and Economic Opportunity Areas:</u></p> <ul style="list-style-type: none"> <li>• A14 Cambridge to Huntingdon improvement</li> <li>• A428 Black Cat to Caxton Gibbet</li> <li>• Oxford to Cambridge Expressway strategic study</li> <li>• A1 East of England strategic study</li> <li>• A1(M) junctions 6-8 smart motorway</li> <li>• A47 Wansford to Sutton</li> </ul>
<p><b>London to Scotland East</b></p>	<p><u>Key challenges:</u></p> <ul style="list-style-type: none"> <li>• Congestion at western dumbbell of M1 junction 15A back to the mainline creates a safety issue</li> <li>• Kelly's Kitchen junction capacity is constraining future growth</li> <li>• Increasing congestion at A5 roundabout at Old Stratford will worsen due to development</li> <li>• Slow-moving traffic through Potterspurty on the A5</li> <li>• Capacity issues at A5/Brackley Road, Towcester junction with queues exacerbated by pedestrian crossing</li> <li>• Congestion at A5 Tove (Towcester) roundabout</li> <li>• 8</li> <li>• Safety issues from Old Stratford to Towcester. There is also an AQMA in Towcester</li> <li>• Congestion between M1 junctions 12 and 15</li> <li>• Congestion at M1 junction 8 constraining growth within Hertfordshire</li> <li>• Diversionary routes affect local traffic, along the entire route from M1 junction 1 to junction 18</li> <li>• Congestion at M1 junction 10 may constrain development</li> <li>• Safety issue at M1 junction 6a</li> </ul> <p><u>Investment Plans and Economic Opportunity Areas:</u></p> <ul style="list-style-type: none"> <li>• Luton Airport (econ opportunity area)</li> <li>• M25/M1 (econ opportunity area)</li> <li>• Northampton-Daventry (econ opportunity area)</li> <li>• A5-M1 Link road</li> <li>• A5 Towcester relief road</li> <li>• M1 junctions 13-19</li> <li>• Oxford to Cambridge Expressway strategic study</li> </ul>
<p><b>London to Scotland West</b></p>	<p><u>Key challenges:</u></p> <ul style="list-style-type: none"> <li>• A43 provides a strategic link</li> <li>• HS2 Phase 1 runs broadly parallel to the M40. Construction of the new rail link will be heavily supported by the SRN throughout the corridor between the M40 and M1, while also serving the town of Brackley and the Oxford-Cambridge arc</li> </ul>

	<ul style="list-style-type: none"> <li>• Frequent congestion at M40 junction 10 with the A43 with growth expected in the area</li> <li>• Congestion and capacity limitations at M40 junction 4 in an area of high economic growth</li> <li>• Congestion and junction issues affect connections to Bicester and Oxford with growth also forecast for the</li> <li>• Significant growth at Banbury</li> </ul> <p><u>Investment Plans and Economic Opportunity Areas:</u></p> <ul style="list-style-type: none"> <li>• Silverstone (econ opportunity area)</li> <li>• Bicester (econ opportunity area)</li> <li>• Oxford (econ opportunity area)</li> </ul>
<b>London to Wales</b>	<p><u>Key challenges:</u></p> <ul style="list-style-type: none"> <li>• M4 west of Swindon capacity issues</li> <li>• Swindon: significant development aspirations</li> <li>• Junctions 14–15 safety issues</li> <li>• South Bucks AQMA</li> <li>• A404/A404(M): capacity issues</li> </ul> <p><u>Investment Plans and Economic Opportunity Areas:</u></p> <ul style="list-style-type: none"> <li>• M4 junction 16 improvement</li> <li>• M4 junction 15 improvements</li> <li>• A404 Bisham roundabout improvement</li> </ul>
<b>Solent to Midlands</b>	<p><u>Key challenges:</u></p> <ul style="list-style-type: none"> <li>• Future housing growth in the Brackley area</li> <li>• New A43 accesses approved for both Silverstone and Towcester major developments</li> <li>• Future growth in area of Abthorpe junction</li> <li>• Limited customer information available (A43)</li> <li>• Frequent congestion at M40 J10 with the A43 and growth expected in the area</li> <li>• Mainline needs to accommodate growth plans</li> <li>• Congestion on approach and at M40 junction 9</li> <li>• A34/A420 additional junction capacity required for growth west of Oxford</li> </ul> <p><u>A34 Milton to Peartree – all junctions need to accommodate growth</u></p> <ul style="list-style-type: none"> <li>• Hinksey Hill lack of east–west capacity</li> <li>• Congestion at junction</li> <li>• Growth at Bicester</li> <li>• A34 north of Oxford – facilities for NMUs are very poor</li> <li>• Traffic uses less suitable routes through Oxford Meadows to avoid A34 congestion</li> <li>• A34 Chieveley – lack of provision for pedestrians and</li> </ul>

	<p>cycles</p> <ul style="list-style-type: none"> <li>• A34 south of Oxford – poor merge/diverge issues</li> <li>• A34/A303 Northbound slip is a problem for HGVs</li> <li>• A34 west Oxford – conflict between local and strategic traffic</li> <li>• A34 – incidents take a long time to clear</li> <li>• A34 west Oxford concrete surface is noisy</li> <li>• A34 West Berks – diversion routes use village roads</li> <li>• A34 at Chieveley – flooding during heavy rain</li> <li>• A34 (M4 to M40) – lack of HGV parking</li> </ul> <p><u>Investment Plans and Economic Opportunity Areas:</u></p> <ul style="list-style-type: none"> <li>• Oxford to Cambridge Expressway strategic study</li> <li>• A5 Towcester Relief Road</li> <li>• Northampton–Daventry (econ opportunity area)</li> <li>• A34 Oxford junctions</li> <li>• A34 technology enhancements</li> <li>• Swindon M4 (econ opportunity area)</li> <li>• Oxford (econ opportunity area)</li> <li>• Science Vale Oxford (econ opportunity area)</li> </ul>
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## 2015 Route Strategies

The full Route Strategies developed during the RIS 1 period can be found here: <https://www.gov.uk/government/publications/route-strategies-april-2015-march-2020>

The below table represents a high level 'pull' of opportunities, challenges and investment priorities in the EEH region which were included in HE's Route Strategies. It should be noted the previous Route Strategies were published in 2015 and simply pulls together what was included at that point within Route Strategies.

Route Strategy	Challenges and Investment Priorities
<b>East of England</b>	<p><u>Opportunities and Challenges</u></p> <ul style="list-style-type: none"> <li>• A1 to Sutton safety issues</li> <li>• A427 safety issues</li> </ul> <p><u>Investment Priorities</u></p> <ul style="list-style-type: none"> <li>• A47 Wansford to Sutton</li> <li>• A47 Guyhirn Junction</li> </ul>
<b>Felixstowe to Midlands</b>	<p><u>Key opportunities and challenges</u></p> <ul style="list-style-type: none"> <li>• Connectivity issues Thrapston to Stanwick (upgrade A45 to dual carriageway)</li> <li>• Junction 10a Kettering East</li> <li>• Kettering bypass widening (widening to 3 lanes between junc 7 and 9)</li> <li>• A45/A6 Chowns Mill</li> </ul>

	<ul style="list-style-type: none"> <li>• A14 Layby and lorry parking – whole route</li> <li>• Reduce severance effects of A45 Stanwick to Rushden</li> <li>• Lack of junction capacity A45 junctions near Rushden and Wellingborough</li> <li>• Traffic management measures at A45 junctions near Northampton</li> <li>• Improved resilience on A14 in general (no hard shoulder)</li> <li>• Hard for vulnerable road users to cross A14</li> <li>• Junction capacity concerns A421/ A6 Bedford South</li> <li>• Junction Improvements – Black Cat</li> <li>• A14 Cambridge to Huntingdon improvements</li> <li>• Junction capacity improvements A14 Cambridge northern bypass and M11 junction</li> <li>• Oxford to Cambridge Expressway</li> </ul> <p><u>Investment priorities</u></p> <ul style="list-style-type: none"> <li>• Kettering bypass widening</li> <li>• A14 Junction 10a</li> <li>• A45 Thrapton to Stanwick</li> <li>• A45/A6 Chowns Mill</li> <li>• A14 Cambridge to Huntingdon</li> <li>• A428 Black Cat to Caxton Gibbet</li> <li>• Oxford to Cambridge Expressway</li> </ul>
<b>London Orbital</b>	<p><u>Challenges and opportunities</u></p> <ul style="list-style-type: none"> <li>• Congestion issues at Junction 16 (is this in EEH region?)</li> <li>• Noise issues near Chorleywod and Rickmansworth</li> <li>• Poor safety record on Junc 21a</li> <li>• M1 Junc 5 – congestion issues Watford due to growth</li> <li>• Junction 23 – high number of collisions</li> <li>• M25 Junc 25 – congestion</li> <li>• M25 South West Quadrant</li> </ul> <p><u>Investment priorities</u></p> <ul style="list-style-type: none"> <li>• M25 South West Quadrant</li> <li>• M25 Junction 25</li> </ul>
<b>London to Leeds</b>	<p><u>Opportunities and challenges</u></p> <ul style="list-style-type: none"> <li>• At grade junction safety at Wittering A1</li> <li>• Junction safety concerns A1/A47 Wansford</li> <li>• Poor alignment coupled with numerous accesses, A1 Water Newton</li> <li>• Junction capacity concerns at Blackcat roundabout (A1/A428)</li> <li>• Safety concerns with accesses, minor side road junctions and at grade roundabouts A1 Baldock to Alconbury, junctions 30,31 and 32a</li> <li>• Concern over vulnerable road user severance between</li> </ul>

	<p>Knebworth ad Stevenage, A1 jnc 7</p> <ul style="list-style-type: none"> <li>• Lack of capacity A1 (M) Junc 1-10</li> <li>• Lack of capacity M11 Junc 8-14</li> <li>• Junction capacity concerns M11 junc 13 and 14</li> <li>• M11 junc 8 lane drop northbound slip causes driver misjudgement</li> <li>• Junction capacity M11 junc 7 and 8</li> <li>• A1(M) Junc 6-8 Smart motorway</li> <li>• M11 Junc 17 upgrade</li> </ul> <p><u>Investment priorities</u></p> <ul style="list-style-type: none"> <li>• A1 East of England Strategic Study</li> <li>• A1(M) Junc 6-8 Smart motorway</li> <li>• M11 J8-14 Technology Upgrade</li> </ul>
<p><b>London to Scotland East</b></p>	<p><u>Challenges and opportunities</u></p> <ul style="list-style-type: none"> <li>• M1 Junc 13-19 Air Quality issues</li> <li>• Suitability of A5 as a strategic diversion route for the M1 and lack of technology to provide strategic driver information</li> <li>• Delays on section of M1 expected due to growth expected at Daventry International Rail Freight Interchange</li> <li>• Significant congestion (and air quality issues) A5 through Towcester</li> <li>• A5 high levels of congestion through Dunstable town centre</li> <li>• A5 connect with M1 at Jnc 9 through Dunstable. High proportion of slight collisions due to low speed at peak periods</li> <li>• M1 connects with M25 – busy leading to safety issues.</li> <li>• Junction capacity issues causing queuing on M1 (junc 13-15)</li> <li>• M1 Junc 10a – least reliable section of route on link to Luton Airport</li> <li>• M1 junc 6a – M1 connect with 25 at second busiest section of route leading to safety concerns.</li> </ul> <p><u>Investment priorities</u></p> <ul style="list-style-type: none"> <li>• M1 junc 13-19 improvement</li> <li>• A5 Towcester Relief Road</li> <li>• Oxford to Cambridge Expressway</li> <li>• A5 – M1 link road</li> </ul>
<p><b>London to Scotland West</b></p>	<p><u>Opportunities and challenges</u></p> <ul style="list-style-type: none"> <li>• M40 – Links between major conurbations at Bicester and Oxford. Congestion and junction capacity issues. Substantial anticipated growth.</li> <li>• M40 junc 9 – congestion issues impact on rear shunts and minor collisions</li> <li>• M40 Junc 4 High Wycombe – junction capacity issues causing congestion on M40</li> </ul> <p><u>Investment priorities</u></p> <ul style="list-style-type: none"> <li>• Oxford Cambridge Expressway</li> </ul>

<p><b>London to Wales</b></p>	<p><u>Opportunities and challenges</u></p> <ul style="list-style-type: none"> <li>• A404 capacity issues</li> <li>• South Bucks AQMA</li> <li>• Swindon to M48 – carriageway nearing end of life</li> <li>• M4 West of Swindon capacity issues</li> <li>• Swindon – significant development aspirations</li> </ul> <p><u>Investment priorities</u></p> <ul style="list-style-type: none"> <li>• M4 junctions 3 -12 (only some of this is in the EEH region)</li> </ul>
<p><b>Solent to Midlands</b></p>	<p><u>Opportunities and challenges</u></p> <ul style="list-style-type: none"> <li>• Lack of VMS on A43</li> <li>• M40 junction 9 capacity</li> <li>• A34/A40 junction design leads to accidents</li> <li>• A34/A420 junction capacity required for growth west of Oxford</li> <li>• Growth at Bicester</li> <li>• A34 West Oxford – conflict between local and strategic traffic</li> <li>• A34 west of Oxford – concrete surface is noisy</li> <li>• A34 Milton to Peartree – all junctions need to accommodate growth – substandard merges/ diverges</li> <li>• A34 at Chieveley – flooding</li> <li>• A34 north of Oxford – facilities for non-motorised users is poor</li> <li>• Hicksey Hill – lack of capacity</li> <li>• Capacity on A34 required to stop traffic using routes through Oxford Meadows</li> <li>• Milton Interchange needs to accommodate Science Vale growth</li> <li>• A34 incidents take a long time to clear</li> <li>• A34 (M40 to M4) lack of HGV parking</li> <li>• A34 north of Chieveley – noise</li> <li>• A34 Chieveley – lack of provisions for pedestrians and cyclists</li> <li>• A34 South of Oxford</li> <li>• Improvements to Abthorpe junction needed to support growth</li> <li>• New A43 accesses approved for both Silverstone and Towcester major developments</li> <li>• Tove pinch point scheme funded to relieve congestion</li> <li>• Junction improvements to support growth in Brackley</li> <li>• M40 Junc 10 to address congestion and support growth</li> </ul> <p><u>Investment priorities</u></p> <ul style="list-style-type: none"> <li>• A43 Abthorpe</li> <li>• Oxford to Cambridge Expressway</li> <li>• A34 Oxford junctions</li> <li>• A34 Technology enhancements</li> </ul>