National Audit Office

Report
by the Comptroller
and Auditor General

Department for Transport and Highways England

Progress with the Road Investment Strategy

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National Audit Office

Department for Transport and Highways England

Progress with the Road Investment Strategy

Report by the Comptroller and Auditor General

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Comptroller and Auditor General
National Audit Office

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This report examines whether the Department for Transport and Highways England are well placed to achieve value for money from the Road Investment Strategy

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Contents

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Key facts

£841m (7%)

the amount by which forecast costs exceed available capital funding for road period 1, as at September 2016

67

road enhancement projects (out of 112) scheduled to open for traffic in road period 2 (2020-21 to 2024-25) or later, including 54 scheduled to start construction in the final year of road period 1

16

projects that Highways England had identified as at risk of not delivering value for money as at February 2017

£11.4 billion	capital funding initially provided over five years for items such as road enhancement and renewals in the first Road Investment Strategy, subsequently increased to £11.9 billion to support new projects or earlier delivery of existing projects
£1.2 billion	efficiency savings target set for Highways England over the five years of road period 1 (2015-16 to 2019-20)
112	major road enhancement projects in the first Road Investment Strategy, such as smart motorway upgrades and upgrading single-carriageway A-roads to dual carriageway
6	major road enhancements which opened for traffic by September 2016
£8.3 billion	effectively committed to road enhancement projects in road period 2 (2020-21 to 2024-25)

Summary

1 Investment in England's strategic road network (motorways and major A-roads) fell sharply from the mid-1990s. In 2013, the government announced a series of Roads Reform measures, designed to improve the management and performance of the network. The main aspects of Roads Reform were to:

- establish Road Investment Strategies, with approved funding covering five-year periods, known as 'road periods'. The first strategy covers road period 1, which runs from April 2015 to March 2020; and
- transform the Highways Agency into Highways England, a government-owned company, to deliver the Road Investment Strategies.

2 In 2014, the government announced details of the first Road Investment Strategy, a programme of work for road period 1. The main objectives of the first Road Investment Strategy are to:

- support economic growth;
- establish a safe and serviceable network;
- create a more free-flowing network;
- improve the environment; and
- improve accessibility and integration of the network.

3 The government committed £11.4 billion of capital funding to the strategic road network for the five years of road period 1. Of this, £7.7 billion was allocated to road enhancement works and ring-fenced funding for projects designed to, for example, promote cycling, improve air quality and encourage economic growth. £3.7 billion was allocated to renewing the network.

4 The roles and responsibilities of the main organisations involved are as follows:

- **The Department for Transport** (the Department) sets the strategic goals for the road network and oversees Highways England's delivery of road investment.
- **Highways England** is responsible for the enhancement, renewal, maintenance and operation of England's strategic road network.
- **Highways Monitor, part of the Office of Rail and Road,** monitors and reports to the Secretary of State for Transport on Highways England's performance.

Scope of the report

5 The main focus of this report is the 112 major enhancement projects, which account for 57% of planned capital expenditure, and represent a material step-change in what is required from Highways England. This report looks at:

- the background to the Road Investment Strategy;
- the development of the Road Investment Strategy, Highways England's progress so far in delivering the enhancement projects, and risks to delivery, affordability and costs relative to benefits; and
- the steps that Highways England and the Department are taking to mitigate those risks, and their plans for future Road Investment Strategies.

Key findings

Development and delivery of the first Road Investment Strategy

6 **The first Road Investment Strategy represents a significant improvement in the efficient management of the strategic road network.** By developing a five-year programme of work with guaranteed funding, Highways England has the opportunity to work more effectively and efficiently. A long-term strategy and improved certainty of funding is intended to enable contractors to plan better and help Highways England to secure lower-cost, long-term contracts with suppliers. The Department expects it to achieve £1.2 billion of efficiencies over road period 1. Following the announcement of additional funding in the 2013 Spending Round, the Department announced a programme of 112 road enhancement projects in December 2014 and passed the Infrastructure Act in February 2015, which established Highways England (paragraphs 1.3, 1.5 and 1.6).

7 **The speed with which the Department designed the first Road Investment Strategy created risks to value for money and deliverability.** The Department put together both the Road Investment Strategy and the legislation to create Highways England as a new government-owned company in 17 months, driven by the government's desire to publish the strategy before the May 2015 general election (the equivalent planning process in Network Rail takes around 30 months). As a result:

- **the Department selected the enhancement projects without knowing enough about whether the portfolio represented best value.** It did not integrate plans for enhancement, renewal and maintenance work, which could have saved money and reduced disruption for road users. The Department selected projects which address longstanding issues on the road network. It carried out a broad, high-level assessment of costs and benefits of the whole portfolio, which estimated that the portfolio could produce benefits of up to £7 for every £1 spent. However, it only conducted limited analysis for many of the potential projects to support this (paragraphs 2.9, 2.10 and 2.13); and
- **of the 112 enhancement projects, 54 are scheduled to start in 2019-20, which would cause significant disruption to the road network, increase prices and put pressure on resources at Highways England.** When the strategy was announced, 69 of the 112 enhancement projects were at an early stage of planning, and road projects typically take around five years from inception to the start of construction. The Road Investment Strategy states that Highways England planned to begin construction on all of these before the end of March 2020 (paragraphs 2.11 and 2.12).

8 **The Department did not make it sufficiently clear when it announced the Road Investment Strategy that the 112 enhancement projects could be subject to change or cancellation.** Because the majority of projects were at a very early stage of development, there was significant uncertainty about their affordability, deliverability and potential benefits relative to costs, with the potential to bring these commitments into doubt. While it noted that these commitments were subject to, for example, value-for-money tests, this risk was not communicated explicitly in public announcements. By giving the impression that it had made a firm commitment to deliver the 112 projects, the Department may find it more difficult to cancel, delay or modify them (paragraph 2.2).

9 The Department chose to set a capital programme which was forecast to exceed funding by £652 million and this has since increased to £841 million. Over-programming had been standard practice in the Highways Agency when capital funding was provided on an annual basis, as it was expected that some projects would be delayed or drop out of the portfolio as it was refined. The Highways Agency would typically over-programme by about 10%, and the portfolio of 112 enhancement projects was broadly in line with this. The original investment plan did not include some capital costs such as post-project evaluations, capital investment in IT, costs associated with transforming the organisation, and works running over from 2014-15. Highways England now estimates that these will cost £409 million. The cost pressure initially built into the programme was therefore higher than the Department understood it to be, and it had increased further to £1.2 billion in March 2016. Highways England has made some progress in reducing the cost of the 112 projects but, because of the additional costs, and the original over-programming, by September 2016 forecast expenditure for the enhancements was £12,727 million, which still exceeded available funding of £11,886 million by £841 million (paragraphs 2.15 to 2.17).

10 Highways England is now reviewing the enhancement programme to improve value for money and deliverability, and make sure the programme is affordable.

- As at February 2017, Highways England had identified up to 16 projects which present a risk to value for money. Highways England and the Department are exploring a number of ways to manage this risk, including revising project design, merging projects on the same stretch of road, cancelling projects and delaying projects to enable further assessment of benefits.
- Highways England has also started work to address the risks caused by the high number of project starts that it scheduled for 2019-20. The Department has not yet decided how it will change the delivery schedule. So far, Highways England has also developed options to bring forward the start dates of up to 10 projects and to push back the start dates of up to 19 projects into the first years of road period 2. The Department and Highways England currently expect that this will not significantly delay delivery of the expected benefits to road users.

The decisions the Department takes in response to these reviews could help reduce the current cost pressure, but it is not yet clear by how much. It is likely Highways England and the Department will need to continue to carry out further work in order to bring the portfolio within the available funding by the end of the road period (paragraphs 3.2 to 3.8).

11 **To date, Highways England has completed and opened six projects to traffic on or ahead of schedule.** However, these projects were completed slightly over budget. Highways England has started construction on a further 19 projects on schedule, and currently forecasts that it will complete 16 of these 19 projects on or ahead of schedule. Highways England forecasts that these projects will be delivered around 5% over budget (paragraphs 2.4 to 2.6).

12 **Highways England met its efficiency savings target of £33 million in 2015-16, but meeting its overall target of £1.2 billion over five years may still prove challenging.** Highways England expects to exceed its target of £139 million for 2016-17. However, Highways England's plans show that it has to achieve 70% of its savings target in the final two years of the road period. Highways England has taken steps to incentivise and promote its project teams to implement savings and has developed plans for how to identify, evidence and measure efficiencies (paragraphs 2.19 to 2.21).

13 **Highways England faces challenges in recruiting the specialist resources it needs to contract for and manage enhancement projects.** Highways England plans to procure contracts for 57 major enhancement projects during 2017, compared with six in 2016, but is currently 19% below its target headcount for procurement and commercial specialists. Demand for these skills is high, so there is a risk that Highways England will struggle to recruit sufficient skilled staff. Highways England has been filling gaps with consultants and interim staff, but these cost on average three times more than permanent employees. The impact of a shortage of skills will be more significant if decisions are not taken to reduce the number of projects due to start in 2019-20 (paragraph 3.15).

Preparing for future Road Investment Strategies

14 **Limited time and analytical capability could restrict Highways England's ability to develop the second Road Investment Strategy effectively.** The Department and Highways England are currently putting together the second Road Investment Strategy and are doing so in a more robust and systematic way than the first. However, developing a robust delivery plan is a major undertaking and Highways England has only nine months before it needs to publish its initial report on the priorities for improving the strategic road network during road period 2. Highways England is working on developing the analytical capability it requires. The Department and Highways England are also reviewing the enhancement projects in road period 1. Although these two pieces of work have significant interdependencies, the Department and Highways England are currently carrying them out largely as separate exercises (paragraphs 3.9 to 3.15).

15 The 66 projects carried over from road period 1 will reduce Highways England's opportunity to take a fully strategic approach to the second Road Investment Strategy, due to be announced in early 2019. Highways England currently forecasts that the construction work begun in road period 1 will cost £8.3 billion to complete in road period 2, an increase of £0.5 billion from the original forecast. Ensuring a smooth profile of work was identified as vital in improving efficiency in the highways sector. Highways England is working on this, but there is a risk that the uneven profile of work in the first Road Investment Strategy will be repeated in road period 2 (paragraph 3.10 and 3.11).

16 Highways England is at an early stage in implementing the systems and processes it needs to manage the enhancement portfolio effectively. Highways England has established a change programme to improve its understanding and management of the overall portfolio of road investments, and has recruited experienced staff to lead and support that work. However, on current plans, it will not have the full capability it needs until the start of the second road period, starting in April 2020 (paragraph 3.16).

17 The Department and Highways England will need to ensure that risks are being managed effectively as the enhancements portfolio increases in scale and complexity. The scale of the challenge for Highways England is now increasing. Procurement for 57 projects is beginning later in 2017, including some large, complex projects such as the Stonehenge tunnel, with further large, complex transformational projects being planned. In rail, the Department and Network Rail monitor performance across the Network Rail portfolio of investment through a joint portfolio board. In addition, both our work and Dame Colette Bowe's review of Network Rail's investment programme suggest that individual large, complex projects can benefit from being managed and governed separately (paragraphs 3.18 to 3.20).

Conclusion on value for money

18 The Road Investment Strategy announced by the Department in December 2014 is an important step towards better long-term planning. However, the speed with which it was put together created risks to deliverability, affordability and value for money. Highways England is beginning to address these risks, but we are now nearly two years into road period 1. If the Department and Highways England do not take decisive action before Highways England publishes the next iteration of its delivery plan in summer 2017, there is a risk that the first Road Investment Strategy will not deliver optimal value, and that current challenges are carried forward into future road investment periods.

19 In order to meet the current challenges the Department and Highways England will need to consider delaying or cancelling some of the 112 projects. While this may mean that some stakeholder expectations are not met, value for money depends on the Department and Highways England proceeding, in this and in future road periods, with a realistic and affordable plan, and focusing resources on those projects which offer the best value to taxpayers and road users.

Recommendations

a **The Department and Highways England should agree an updated delivery plan for the remainder of road period 1**, including an updated programme of road enhancement projects that is deliverable, affordable and represents value for money. The plan should include:

- the latest cost estimates compared with available funding, and plans for how cost pressures will be managed; and
- a clear statement setting out the impact of the updated delivery plan on the work that is to be undertaken in road period 2.

b When announcing the second Road Investment Strategy, the Department and Highways England should be clear about:

- **which projects they are committed to**, and which they intend to deliver subject to further development and analysis;
- **the level of certainty about the estimated costs, scope and delivery schedule** of the projects; and
- the likely **impact on future road periods**.

c **Highways England and the Department should ensure that the second Road Investment Strategy marks a step towards establishing a stable, rolling programme of investment.** It might not be possible for this to be fully achieved with the second strategy, but the Department and Highways England should have a clear long-term plan for achieving a smooth profile of capital investment in the road network.

d **The Department should re-evaluate its approach to the oversight of Highways England** as the scale and complexity of Highways England's investment portfolio increases. In particular, the Department should consider:

- how it gains assurance about the affordability, deliverability and overall value for money of the enhancement portfolio, including, for example, considering establishing a joint portfolio board like that which the Department now uses to monitor Network Rail's portfolio; and
- whether it and Highways England should monitor and govern large-scale, complex and transformational projects outside its main portfolio.

Part One

Background to the first Road Investment Strategy

The strategic road network

1.1 The strategic road network in England comprises around 4,300 miles of motorways and major A-roads (see **Figure 1**). It is a vital piece of national infrastructure carrying one-third of all traffic and two-thirds of freight traffic. The Department for Transport (the Department) has stated that: "the continued operation, maintenance and enhancement of the SRN [strategic road network] is fundamental to the well-being of the population and the development of the economy."[1]

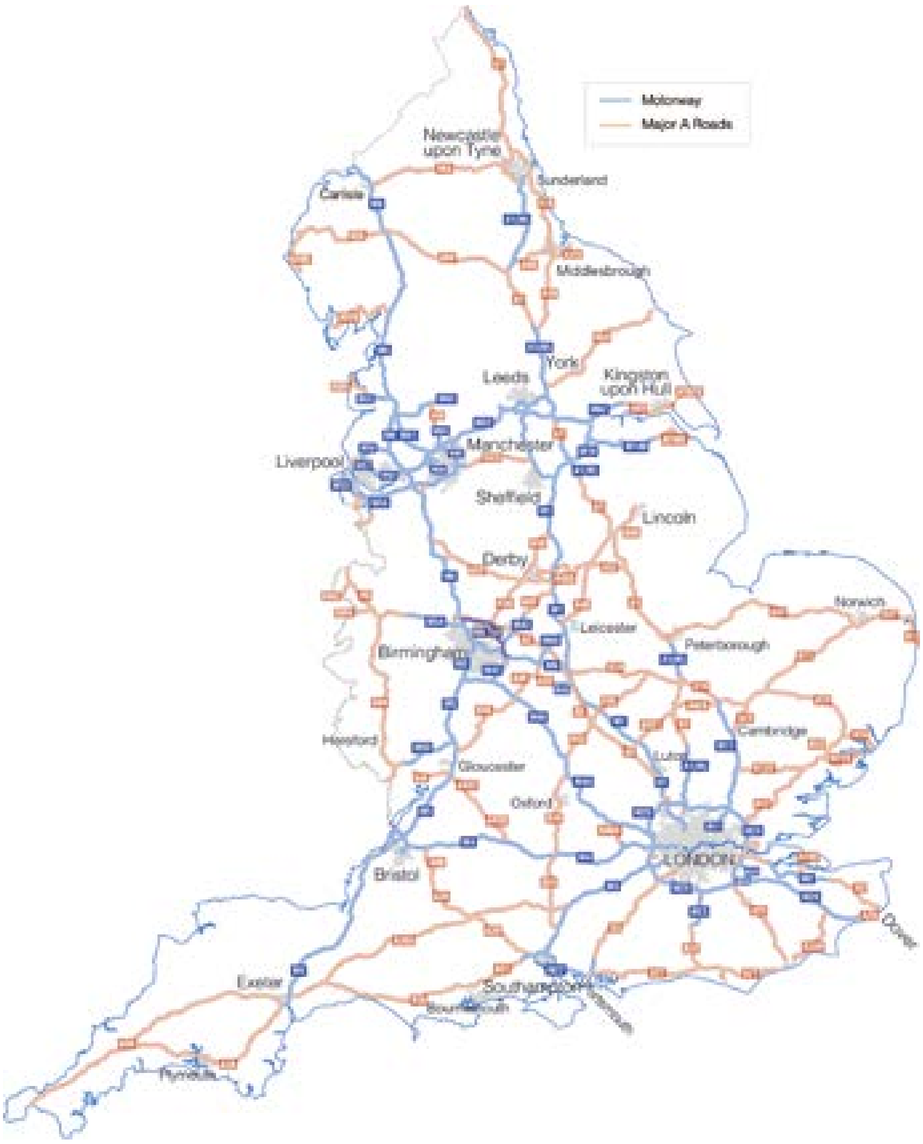
1.2 Despite consistent growth in traffic volume, investment in the strategic road network has fluctuated considerably since the 1960s due to political and economic factors (see **Figure 2** on page 14). Since the mid-1990s, investment in roads has fallen and has failed to keep pace with demand. Consequently, the quality of the network has declined and congestion, noise and poor air quality pose problems at numerous hotspots across the network.[2]

1.3 In 2011, the government commissioned Alan Cook, then Chairman of the Highways Agency, to review how the Department and the Highways Agency managed the strategic road network. His report, *A fresh start for the Strategic Road Network*, highlighted issues in the institutional relationship between the Highways Agency and the Department which created inefficiency, additional costs for the taxpayer and poor outcomes for road users.[3] In July 2013, the government published its response, *Action for Roads: A network for the 21st century*, announcing the Roads Reform programme. **Figure 3** on page 14 summarises the main findings of the Cook Review and the government's response.

1 Department for Transport, *Setting the Road Investment Strategy Now and in the Future*, June 2014.
2 Department for Transport, *Road Investment Strategy: for the 2015-16–2019-20 Road Period,* March 2015.
3 Alan Cook, *A fresh start for the Strategic Road Network*, Department for Transport, November 2011.

Figure 1
England's strategic road network

The strategic road network in England comprises around 4,300 miles of motorways and major A-roads

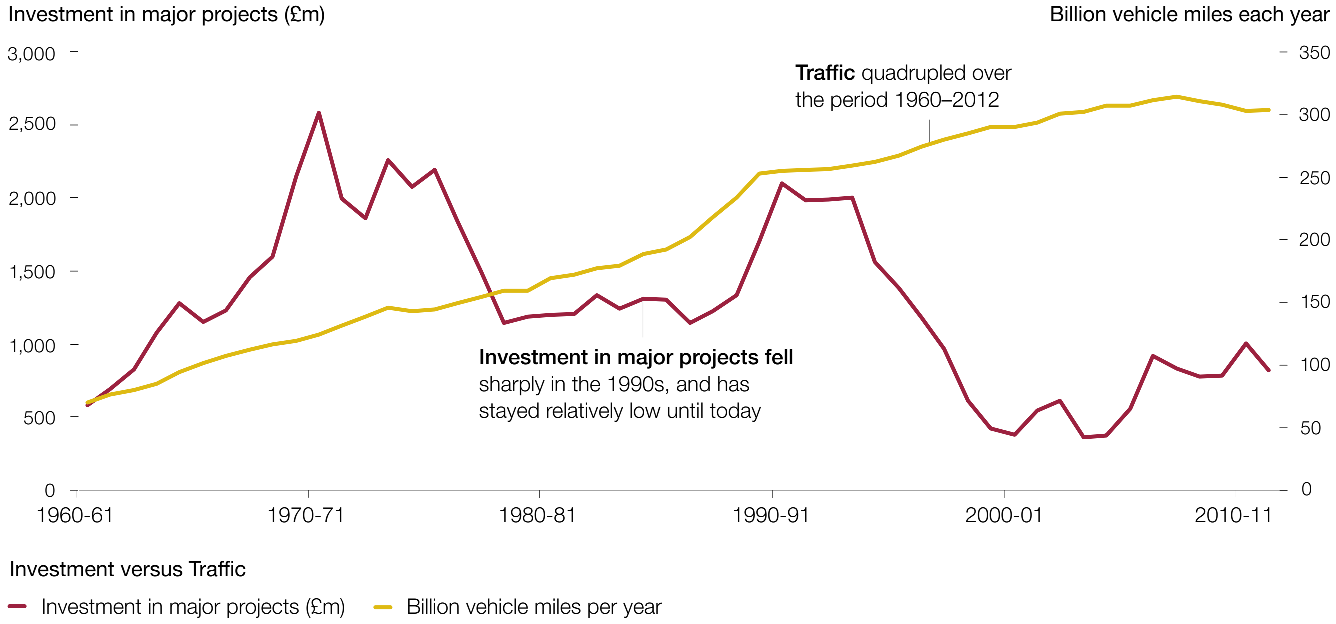


Source: Highways England

Figure 2

Historic spending on major road projects compared to traffic growth, 1960 to 2010

Since the mid-1990s, investment in road building has lagged behind the growth in traffic



Note

1 Traffic estimates from Department for Transport Statistics; spending data collected from a range of published government documents and Highways Agency spend data. Note that for the spending data, there have been minor changes to the classification of road projects over time.

Source: Department for Transport, *Transforming our strategic roads – A summary*, December 2014

Figure 3

The Cook Review and the government's response

The main findings of the Cook Review	The government's response
The Highways Agency's Board was advisory, so lacked the decision-making powers to take a long-term, strategic view of the needs of the network. The Department, however, which was responsible for providing strategic direction, had not given the Agency a clear and consistent picture of its long-term aims.	The Highways Agency would become a government-owned company – Highways England – so that it could develop a more strategic approach to investment on the network, operate more flexibly and efficiently, provide better customer service and get better value for money from investment.
The annual funding of the Agency made it more vulnerable to cuts than other parts of transport in difficult times. Stop-start funding and the related lack of certainty in the budget from year to year made it harder to secure efficiencies through long-term agreements with suppliers that could offer better value for money.	The Department announced the first Road Investment Strategy, a five-year planning model similar to that used by Network Rail since 2002.
The Agency had to abide by rules designed for office-based civil service departments. This generated red tape and limited its ability to attract skilled specialists and project managers.	Highways England is largely subject to civil service guidelines on pay, but is able to ask HM Treasury for dispensation to pay specialist staff more than the standard civil service pay structure.
The work carried out by the Agency lacked a clear yardstick with which to measure performance, to help show where greater savings could be made.	The government established an independent body, the Highways Monitor, part of the Office of Rail and Road, to monitor and help improve the performance and efficiency of Highways England.

Source: National Audit Office analysis of the Cook Review (November 2011) and of Department for Transport documents on Roads Reform

Roles and responsibilities

1.4 Under the Roads Reform arrangements, the Department remains responsible for funding and sponsoring investment in the strategic road network and is ultimately accountable for its successful delivery. Highways England is the new strategic highways company, legally independent, responsible for enhancing, maintaining and operating the network. Highways England's Board is responsible for holding the executive to account for the effective and efficient delivery of the Delivery Plan and for the performance of Highways England. The Office of Rail and Road is responsible for monitoring the performance of the company and Transport Focus champions the needs of road users on the strategic road network. **Figure 4** summarises these roles.

Objectives of the first road investment strategy

1.5 The Department's rationale for having a five-year investment strategy is to provide certainty to Highways England and its suppliers, to create confidence among suppliers over future work and to generate savings by agreeing lower-cost, long-term contracts. This is a significant step forward from the previous approach. Highways England has five main objectives for delivery of the strategy:

- support economic growth;
- establish a safe and serviceable network;
- create a more free-flowing network;
- improve the environment; and
- improve accessibility and integration of the network.

Figure 4
Roles and responsibilities

Organisation	
The Department for Transport	sets the government's strategic goals for the road network; approves the five-yearly Road Investment Strategy, and holds Highways England's Board to account for its governance of the Company and its delivery of the strategy.
Highways England	is responsible for the enhancement, renewal, maintenance and operation of England's strategic road network and is accountable through its Board to the Secretary of State for all aspects of Highways England's activities and performance.
Highways Monitor (part of the Office of Rail and Road)	monitors Highways England's progress against its performance specification and investment plan. The Highways Monitor is not a regulator, as the Office of Rail and Road is for Network Rail, but it does have some enforcement powers in the event that Highways England under-performs.
Transport Focus	carries out research on the needs of road users on the strategic road network, and represents their interests in the design and delivery of road improvement and maintenance programmes.

Source: Infrastructure Act 2015

Funding

1.6 In the 2013 Spending Round, the government committed £12.8 billion of funding for England's strategic road network for the five years of the first Road Investment Strategy (2015-16 to 2019-20), and a further £4.2 billion for 2020-21. Of the £12.8 billion, £11.4 billion was capital funding for investment in the strategic road network, including around £7.7 billion for major enhancement projects and ring-fenced funding for projects designed to, for example, promote cycling, improve air quality and encourage economic growth. Some £3.7 billion was made available for smaller projects to renew parts of the network (see **Figure 5**). The funding for enhancement projects doubles the amount spent between 2010 and 2015, making it the most challenging element of the Road Investment Strategy. This report therefore focuses on the enhancement projects.

The enhancement projects in the Road Investment Strategy

1.7 To inform the Road Investment Strategy, the Department developed an investment plan, which set out in more detail what Highways England would deliver during road period 1. The largest element of the investment plan was 112 enhancement projects spread across the strategic road network. The projects varied in size from small changes to junctions costing a few millions of pounds to the £1.4 billion widening of large sections of the A14 between Cambridge and Huntingdon. The projects also varied greatly in terms of complexity and risk, with some, such as improvements to the A303 in the South West, involving complex engineering and a wide range of stakeholders to manage. **Figure 6** describes the different types of enhancement projects.

Figure 5
Statement of funds available, first Road Investment Strategy

The government provided £12.8 billion of funding for the first Road Investment Strategy, £11.4 billion of which was allocated to capital works

	Road period 1 (2015–2020) (£m)	Road period 2, first year (2020-21) (£m)	Spending Review 2013 period (2015-16 to 2020-21) (£m)
Capital enhancement	7,693	3,114	10,807
Capital renewal	3,658	750	4,408
Total capital	**11,351**	**3,864**	**15,215**
Resource maintenance	1,476	311	1,787
Total funding committed	**12,827**	**4,175**	**17,002**

Source: Department for Transport, *Road Investment Strategy: for the 2015-16–2019-20 Road Period*, March 2015

Figure 6
Types of road enhancement project

Types of road enhancement project	Examples of projects included in the Road Investment Strategy
Smart motorways Smart motorways are actively controlled motorways. They use technology to convert the hard shoulder into a running lane and use technology to manage the change in hazards to road users in order to increase capacity and smooth the flow of traffic. CCTV cameras and variable message signs are used to regulate speed and close lanes in the event of an incident or congestion, and regularly spaced emergency refuges mean that there is always somewhere to go in the event of a breakdown.	**M1 junctions 32–35a** Upgrading the M1 to a smart motorway, including the use of hard-shoulder running, between junction 32 (M18 interchange) and junction 35a (A616) around Sheffield and Rotherham.
Expressways Expressways upgrade A-roads, providing improved standards of performance, with technology to manage traffic and mile-a-minute speeds in order to giving most users a motorway-quality journey. At a minimum, this means: • largely or entirely dual-carriageway roads; • junctions which are largely or entirely grade-separated, so traffic on the main road can pass over or under roundabouts without stopping; • modern safety measures and construction standards; and • technology to manage traffic and provide better information to drivers.	**A19 coast road** Upgrading the existing grade-separated roundabout to a three-level interchange to increase capacity and improve safety. Together with the A19 Testos, this raises the A19 to expressway standard from Yorkshire to north of Newcastle.
Junction improvements Junction improvements mainly aim to reduce congestion but also to facilitate improved access to local development sites and to improve accessibility for non-motorised users.	**M621 junctions 1–7** Improvement of key junctions on the M621 in central Leeds, providing safer and more reliable journeys for those travelling in the city.
Technology upgrade Improved information and electronic signage on dual carriageways.	**M11 junction 8 (Stansted Airport) to junction 14 Cambridge – Girton interchange** Technology improvements, including emergency roadside telephones, signals on slip roads, Motorway Incident Detection and Automatic Signalling (MIDAS), Variable Message Signs, CCTV cameras and gantries.

Source: National Audit Office analysis of the Department for Transport investment plan and Highways England delivery plan

1.8 The remainder of this report looks at:

- how the Department developed the first Road Investment Strategy and selected the 112 road enhancement projects;
- Highways England's progress in delivering the 112 enhancement projects, and the remaining risks to the deliverability and affordability of the programme; and
- the steps the Department and Highways England are taking to mitigate those risks, and their plans for a future Road Investment Strategy.

Part Two

The development and delivery of the Road Investment Strategy

2.1 The establishment of Highways England as a government-owned company and the development of the first Road Investment Strategy were completed quickly. There were only 17 months between the publication of *Action for Roads* and the spending review settlement in July 2013, and the announcement of the first Road Investment Strategy in December 2014. The short timetable (see **Figure 7**) was driven by the government's objective to announce a full programme of investment commitments, including major enhancement projects, in the Autumn Statement of December 2014, before the general election in May the following year. Network Rail typically has 30 months – nearly twice as long – to develop its five-year investment plans. The Department for Transport (the Department) and the Highways Agency had to complete a significant amount of work prior to announcing the strategy, including:

- deciding on a revised delivery model for management of the strategic road network, including the status, role and powers of Highways England;
- drafting the necessary legislation and stewarding it through Parliament;
- producing 18 route strategies, which identified problems across the entire strategic road network, and options to address them;
- carrying out six feasibility studies into large, transformational programmes, such as tunnelling beneath Stonehenge and widening major sections of the A1 in the North East; and
- developing a programme of capital work, which significantly increased the level of investment in the strategic road network.

Figure 7

Road Investment Strategy – timeline of events

The Department took only 17 months from the publication of Action for Roads to announce the first Road Investment Strategy

Nov 2011

Publication of *A fresh start for the Strategic Road Network* by Alan Cook (the Cook Review)

May 2012

Government response to the Alan Cook's review of the Strategic Road Network

Jun 2013

2013 Spending Round – Government agrees funding for the first Road Investment Strategy

Jul 2013

Government publishes Action for roads: a network for the 21st century, which outlined plans to transform the Highways Agency into a government-owned company, and introduce the Road Investment Strategy

Oct 2013

Consultation on transforming the Highways Agency into a government-owned company

Apr 2014

Government Response to consultation on transformation of the Highways Agency

Jun 2014

Infrastructure Bill introduced to Parliament

Oct 2014

Department produces guidance on the roles of the Highways Monitor and Transport Focus

Oct to Nov 2014

DfT assesses proposals for 250 projects

Dec 2014

Department publishes the first Road Investment Strategy and Highways England publishes its Strategic Business Plan

Feb 2015

Infrastructure Act becomes law

Mar 2015

The Department signs memoranda of understanding with Highways Monitor (ORR) and Transport Focus The Department and Highways England agree the Licence and Framework under which Highways England will operate

Highways England publishes its delivery plan for 2015–2020

Apr 2015

Highways England is formally established, replacing the Highways Agency

Nov 2015

The government outlines plans to for the development of the second Road Investment Strategy

Mar 2016

Government issued guidance for preparation of the second Road Investment Strategy

2011 | 2012 | 2013 | 2014 | 2015 | 2016

Source: National Audit Office analysis

2.2 The Department announced the 112 enhancement projects as firm commitments. For instance, the Road Investment Strategy published in December 2014 stated, "a total of (112) major road schemes will come forward in this Road Period". The revised Road Investment Strategy published in March 2015 stated "we will also undertake (112) major schemes over the course of the first Road Period. These wide-reaching plans represent good value for money." Because the majority of projects were at a very early stage of development, there was significant uncertainty about their affordability, deliverability and potential benefits relative to costs. The Department noted that these commitments were subject to, for example, value-for-money tests, but this was not communicated explicitly in public announcements. By giving the impression that it had made a firm commitment to deliver the 112 projects, the Department may find it more difficult to cancel, delay or modify them.

2.3 The remainder of this part of the report looks at:

- how the Department selected the enhancement projects;
- the risks to costs and benefits that this created; and
- estimates of the costs of the enhancement projects and other capital investment.

The portfolio of enhancement projects

2.4 The first Road Investment Strategy includes 43 projects that had already been approved as part of the 2010 and 2013 Spending Round (**Figure 8**). By the start of road period 1, construction had begun on 17 of these projects and the Highways Agency had begun to develop and plan 20 of the other 26 projects. By September 2016, six of these projects had been completed and opened to traffic on schedule. These six projects had been forecast to cost a total of £661 million, and were delivered for £690 million, 4.4% over budget.

Figure 8

Composition of the road enhancement portfolio

The first Road Investment Strategy includes 43 projects from previous spending rounds and 69 new projects

	Source	Number of projects	Construction started before beginning of road period[1]	Construction starting in the final year of road period[1]
Approved before the Strategy was announced	Spending Round 2010	16	16	0
	Spending Round 2013	27	1	6
New projects	Feasibility studies	20	0	18
	Route strategies	49	0	30
	Total	**112**	**17**	**54**

Source: National Audit Office analysis of Highways England data

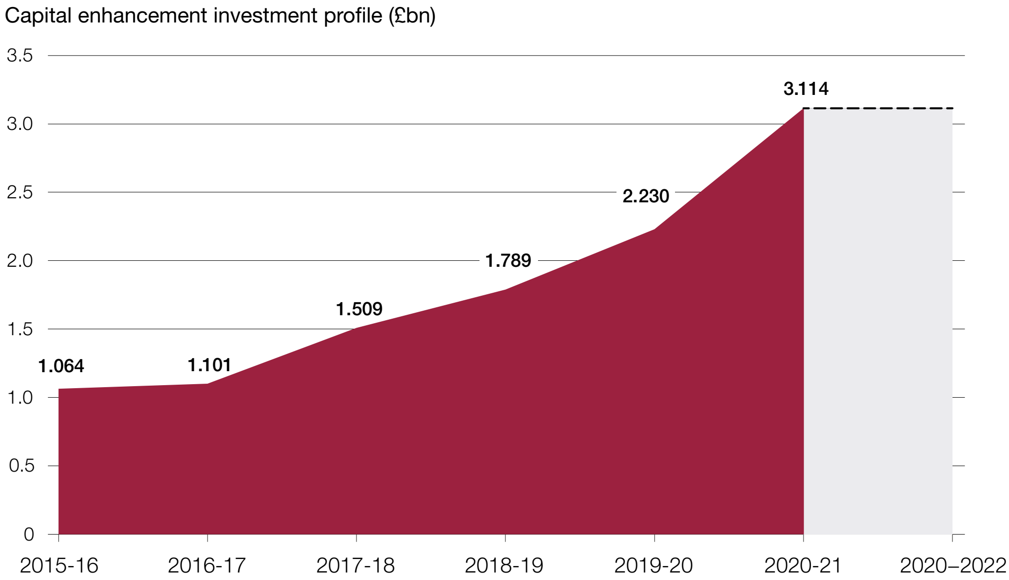
2.5 The other 19 projects that have begun construction are forecast to run on average 5.5% over budget, but with large variances on some individual projects such as the A21Tonbridge to Pembury, which shows an increase in the latest forecast of 73.7%. Three of these projects have experienced delays and Highways England expects them to open for traffic later than originally planned.

2.6 In order to achieve a more stable and consistent level of annual investment on enhancements of around £3 billion, the Department needed to increase the level of investment during road period 1. To do this, it had to develop many more enhancement projects to start work in road period 1 and the first year of road period 2 (2020-21). Whether Highways England can then sustain a consistent level of investment depends on its plans for road period 2. **Figure 9** shows the upwards growth in the funding profile for enhancements up to 2020-21.

Figure 9

Enhancements funding profile 2015-16 to 2020-21

The level of investment in road enhancements is being increased across road period 1 and should then reach a steady state



Note

1 Funding profile beyond 2020-21 is yet to be determined.

Source: Department for Transport, *Road Investment Strategy: for the 2015-16–2019-20 Road Period*, March 2015

2.7 The Department had only two months to consider the proposals and select the enhancement projects before announcing the strategy in December 2014 (see Figure 7). The Department selected the additional projects from the results of the route strategies and feasibility studies. The 18 route strategies produced around 250 proposals for road enhancement projects. The Department eventually selected 49 projects from the route strategies and a further 20 from the six feasibility studies.

2.8 The compressed timetable meant that the Department and the Highways Agency could not carry out sufficient analysis and planning to ensure that the Road Investment Strategy was affordable and deliverable, and that the projects would produce high benefits relative to costs. In particular, the need to develop so many new projects more or less from scratch meant that the portfolio of enhancement projects contained a high level of uncertainty from the outset. Our reports on the Ministry of Defence equipment plan and Dame Colette Bowe's review of Network Rail's investment plan 2014–2019 show that announcing projects at too early a stage in their development often leads to delays, deferred or lost benefits, or opportunity costs from not pursuing the best projects.

Risks to the benefits relative to costs of enhancement projects

2.9 The Department announced the 49 new projects selected from the route strategies when their scope and cost were still uncertain. The Department was aware that further work would be needed before the precise scope could be finalised. Consequently, the Department and Highways England did not carry out detailed cost–benefit analysis to provide an assessment of their likely benefits relative to costs. Instead, the Department was able to produce only a broad, high-level indication of the portfolio's costs and benefits. This assessment estimated that the portfolio could produce benefits of up to £7 for every £1 spent, including economic benefits, such as potential improvements in productivity resulting from the investment. Based on limited analysis, the Department assessed 80 of the 112 projects (71%) as having cost–benefit ratios of at least 2 (meaning that they were forecast to produce at least £2 of economic benefit for every £1 of cost). However, the Department included 12 projects which it assessed as being 'low' value for money (meaning that the cost–benefit ratio was thought to be between 1 and 1.5), and four that were likely to offer 'poor' value for money (meaning that the costs were thought to be higher than the benefits).

2.10 Because 69 of the 112 projects were at such an early stage of development, cost estimates were inherently uncertain. It is not clear how far the Department and Highways England made provision in the cost estimates of the immature projects to account for optimism bias and risks to scope and costs as recommended by HM Treasury. A 2007 report commissioned by the Department concluded that costs for road projects tended to rise sharply because they were announced before there was a clear decision on the precise scope of the work, and recommended that the Department approve funding in stages.[4] Increased scope and cost estimates without a corresponding increase in benefits, should they occur, would weaken the case for investment.

4 M. Nichols, *Review of Highways Agency's Major Roads Programme*, March 2007.

Risks to efficient delivery

2.11 The Department included 69 new and previously unannounced enhancement projects to begin construction by 31 March 2020. This resulted in a heavily back-loaded delivery schedule (**Figure 10** overleaf). Some 54 of the 112 enhancement projects will start in the final year of road period 1, and more than half of the projects (67 of 112) will not be completed until road period 2 and beyond.

2.12 This back-loaded delivery schedule risks creating bottlenecks and inefficiencies in the procurement and construction timetables. Highways England is currently planning to run around 57 procurements during 2017. Taking this number of projects to market at the same time increases the risk of disruption, saturating the market and reducing competition for contracts. In particular:

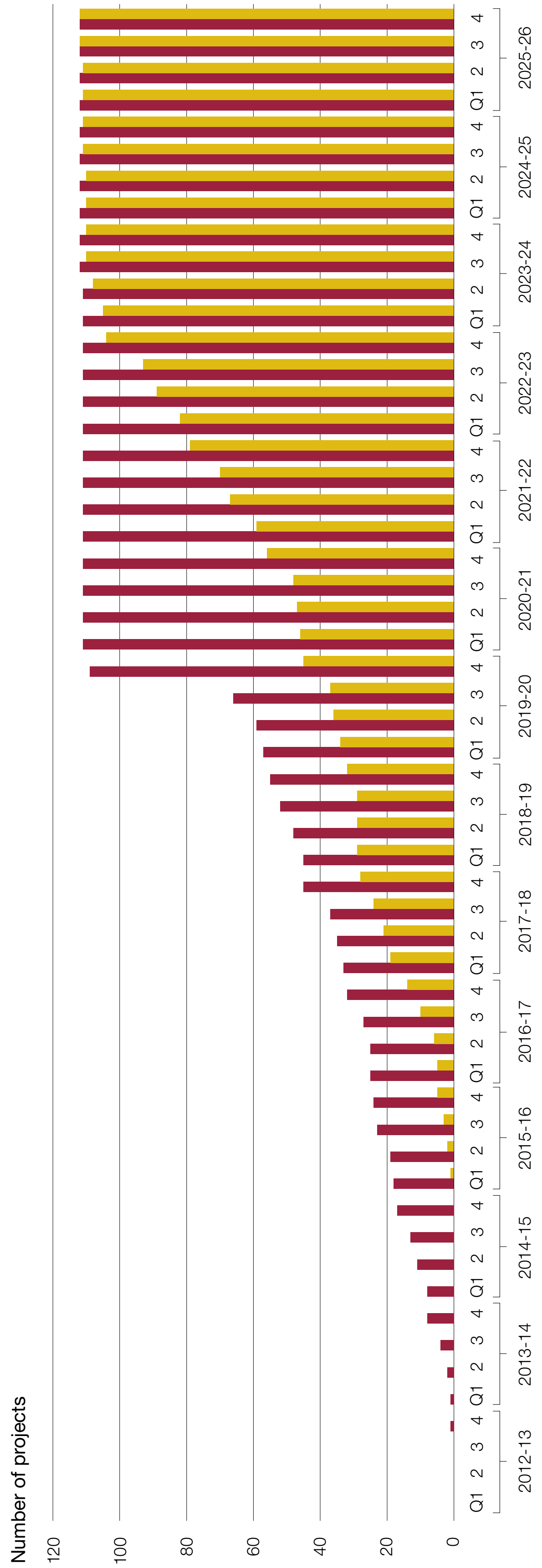
- Starting a number of projects on the same stretch of road at the same time could result in multiple sets of road works, leading to disruption and a poor experience for road users.
- The sharp increase in procurement activity and the high number of projects scheduled for construction at the same time will place demands on contractors' capacity to bid for and deliver work. We have seen from our work on rail franchising that the timing of competitions can influence contractors' willingness to enter competitions or spend time and money producing high-quality bids. This could reduce levels of competition for contracts and so reduce value for money.
- Starting large numbers of projects at the same time places high demand on specific skills, labour, construction equipment and materials, which could prove challenging for suppliers to meet and could lead to delays or increased prices.

2.13 The Department and Highways England did not assess the interdependencies between projects to confirm they would be delivered in an efficient way that would minimise disruption to road users. Nor did they plan how the enhancements would integrate with other road renewal projects and maintenance work to produce an integrated portfolio of work, or how they would minimise disruption and benefit from potential efficiencies from the supply chain. The Department's expectation was that this would be undertaken by Highways England once it was fully established.

2.14 Efficient and effective delivery of major projects depends on having sufficient planning, procurement and project management capacity and capability. In December 2014, Highways England published a strategic business plan for the first Road Investment Strategy. In this plan, Highways England acknowledged that it would need to strengthen its capability to meet its objectives. The Department expected the new management team at Highways England, which would not be in place until after the commencement of the Road Investment Strategy, would develop a fully detailed capability plan. Launching the strategy without having a robust capability plan in place for Highways England introduced uncertainty and risk.

Figure 10
Forecast start of works and open to traffic dates of Road Investment Strategy enhancement projects

Fifty-four of the 112 road enhancement projects are scheduled to begin in the final year of road period 1



■ Start of work

■ Open for traffic

Source: National Audit Office analysis of Highways England data

Estimated capital costs in road period 1

2.15 At the time of the announcement of the Road Investment Strategy, the Department and Highways England estimated that the capital costs would exceed available funding by £652 million between 2015-16 and 2019-20. Over-programming (planning more work than there is funding to pay for) had been used by the Highways Agency to mitigate the risk that project delays or cancellations would lead to the Agency being unable to spend its allocated annual funding, which could affect future allocations. The bulk of the over-programming relates to the portfolio of 112 enhancement projects. In line with previous practice in the Highways Agency, at the time the Road Investment Strategy was announced, the over-programming of £652 million amounted to just under 10% of the £6,804 million forecast cost of the enhancements.

2.16 Highways England's September 2016 forecasts included £409 million of costs that were not in the original investment plan (net of £140 million of additional funding to cover some work which was carried over from previous years). These costs had to be met from the capital budget, and increased the level by which forecast costs exceeded available funding. These extra costs included:

- **2010 Spending Review (SR10) legacy costs:** ongoing liabilities from projects that completed in SR10, typically relating to disputes over land that may need to be settled;
- **business costs:** including items such as Highways England's capital investment in information and communications technology and estates; and
- **indirect costs:** including items such as the POPE (post opening project evaluation) programme, national air quality monitoring programme (designed to help understand the delivery risk) and the development of a regional traffic model. Highways England expect this additional capital spending to result in improved efficiency and cost reductions to individual projects over time.

2.17 Highways England's cost estimates as at September 2016 show that the current cost pressure for road period 1 is £841 million (around 7% of available funding). Thisis an overall increase of £189 million since the time the Road Investment Strategy was announced, but a reduction from the £1.2 billion cost pressure in March 2016. The increase in how far forecast costs exceed available funding is largely the result of the £409 million of additional costs that Highways England identified after the strategy was announced. **Figure 11** overleaf summarises the latest forecast capital costs compared with available funding and estimated costs at the time the strategy was announced.

Figure 11

Estimated capital costs compared with available funding for road period 1 (2014-15 to 2019-20) (£ million)

Highways England's forecast costs exceed available funding by £841 million, an increase of £189 million since the beginning of road period 1

	Road Investment Strategy, March 2015 (£m)	Changes (£m)	September 2016 (£m)
Funding			
Approved capital funding 2015-16 to 2019-20	11,351		
Additional funding for work pushed back from 2014-15 to the first road period		140	
Additional funding to cover the M20 lorry park (project stack)		234	
Additional funding to bring forward two M62 projects		161	
Total funding	**11,351**		**11,886**
Cost estimates			
112 road enhancement projects	6,804		6,857
Fixed capital costs, including renewals	4,333		4,333
Other Capital	400		408
Development of road period 2 projects	316		309
Emerging priorities/unallocated funding	150		–
Total forecast capital costs 2014-15 to 2019-20 (original scope)	**12,004**		**11,907**
Capital costs not identified in the investment plan		409	
Work pushed back from 2014-15 to the first road period		140	
M20 lorry pack (project stack)		271	
Total forecast capital costs 2014-15 to 2019-20 (after approved changes)			**12,727**
Forecast overspend/over-programming	652		841

Notes

1 Note: Highways England provides information on progress with delivery of the Road Investment Strategy to the Highways Monitor every quarter. This information includes, for example, forecast start and completion dates for the 112 enhancement projects and estimated projects costs. The information on Highways England's performance against cost and schedule in sections of the report is based on the position up to the end of September 2016 as, at the time of publication of this report in March 2017, management information about the position as at December 2016 was still being prepared and quality-assured.

2 Columns may not sum precisely because of rounding.

Source: National Audit Office analysis of Highways England data

2.18 The Department and Highways England did not put in place a plan to mitigate the risks to the enhancement projects in the Road Investment Strategy at the outset. For example, although they planned to reassess the costs and benefits of individual projects as they developed, they made no plans to assess the overall portfolio to identify which projects to prioritise and which to delay or cancel to control the level of over-programming and improve the overall affordability, deliverability and benefits relative to costs. Part Three sets out what the Department and Highways England have been doing over the past year to control and manage risks to the portfolio.

Efficiency targets for road period 1

2.19 The cost estimates set out above assume that Highways England will deliver £1.2 billion of efficiency savings (either from reduced costs or improved productivity) from its capital work during road period 1. The efficiency target is based on the findings of the 2011 Cook Review, which estimated that Highways England could realise around £200 million of savings a year if the report's recommendations were implemented. The Department commissioned consultants to provide independent advice about the deliverability of the efficiency target, but the target was not based on agreed baselines or benchmarks for how much it should cost to carry out road improvement projects. Helping to set efficiency targets and monitoring and approving efficiency claims are key parts of the future role of the Highways Monitor.

2.20 Highways England is currently on course to exceed its efficiency targets for the first two years of road period 1. The Highways Monitor has confirmed that Highways England secured £33 million of efficiency savings in 2015-16, in line with the target, although the final figure is likely to be higher. It has already claimed £145 million of efficiencies against a target of £139 million in 2016-17 and is forecasting that it could secure up to £200 million by the end of the year, although this has yet to be confirmed by the Highways Monitor. The efficiency target reflects the back-loaded nature of the capital programme, with £835 million (70%) of the £1.2 billion target due in the final two years of road period 1. As Highways England is still reviewing the deliverability of enhancement projects due to start construction in the final years of the road period, achieving the target may prove challenging.

2.21 Highways England and the Highways Monitor have made good progress on the identification, measurement and assurance of efficiency savings. Highways England has begun to establish clearer baselines against which to measure efficiency. It has also allocated efficiency targets to individual projects, identified a range of sources of potential efficiency and incentivised project managers to deliver efficiently.

Part Three

Next steps for road investment planning

3.1 This part looks at what Highways England and the Department for Transport (the Department) are doing to:

- improve the deliverability, affordability and value for money of the projects being delivered in road period 1;
- plan the second Road Investment Strategy; and
- develop the capacity, capability and governance structure needed to meet current and future challenges.

Reviews of the enhancement projects in the first road investment strategy

3.2 In September 2015, Highways England told the Department that it considered the portfolio of projects to be both deliverable and affordable in its current form. Despite the fact that the Highways Monitor had made Highways England and the Department aware of risks to the delivery plan in its first interim report on Highways England's progress in the autumn of 2015, neither the Department nor Highways England started work to review the portfolio until much later. The Highways Monitor outlined the need to:

- set out a clear baseline for the scope of what Highways England plans to deliver for each major scheme;
- provide assurance that the schedule is deliverable, affordable and aligned with performance specification requirements; and
- provide assurance that the baseline schedule information represents an efficient approach to delivering the portfolio of works.

Highways England began reviews of the portfolio of 112 enhancement projects in mid-2016. The aims of this work are to identify ways to reduce risks brought about by the delivery schedule, reduce forecast costs and identify projects with a weak cost–benefit ratio.

3.3 Highways England has been working on the baseline plan for the enhancement projects and plans to have an agreed, assured baseline in place by April 2017. With further work still to do on the reviews of the portfolio, however, it is likely that this baseline will be subject to significant further change during 2017. Highways England is also preparing to begin procurement of main contractors for 57 projects during 2017. Without a clear picture of which projects it plans to deliver and when, and which projects are the highest priority, there is a risk that procurement starts on projects that do not represent best value for money.

3.4 While reviewing and revising the first Road Investment Strategy, Highways England is also planning the second. Most of the construction work on projects scheduled to start during the last years of road period 1 will take place during the second period, so both activities are closely related. However, Highways England and the Department are carrying out this work as two separate exercises, which could result in deferring delivery risks to later road periods.

How the reviews were carried out

3.5 In April 2016, Highways England launched reviews of the business cases for each of the 112 projects to look at the portfolio in greater depth. These reviews included assessments of:

- the strategic fit of the project with the objectives of the Road Investment Strategy;
- the benefits and costs of each project based on updated information;
- the quality of information and analysis of the business cases of each project; and
- the scheduling of the 112 projects and impact for road users.

3.6 During 2016 Highways England reviewed the costs and benefits of the projects. As at February 2017, Highways England had identified up to 16 projects that presented a significant risk to value for money. Highways England is currently carrying out further analysis of the scope, costs and delivery plans of these 16 projects, and is considering a range of options for managing the risk, including:

- developing plans to improve benefits or reduce costs, with the aim of retaining them as part of the Road Investment Strategy;
- recommending cancellation or putting projects on hold for reconsideration in the next road period; or
- reappraising them to establish whether they would represent value for money when considered as part of a cluster of projects on the same stretch of road.

3.7 In October 2016, Highways England began to look at how it could establish a smoother profile of project starts and manage the risks to efficient and effective delivery. It has looked at the start and end dates of clusters of projects in eight regions across England and in five major route corridors. Highways England has developed a range of options for bringing forward the start dates of some projects and delaying others to start construction in road period 2 (2020-21 to 2024-25). Highways England's early plans, which remain subject to further work, assurance and governance, suggest that Highways England could bring forward the start dates of as many as 10 projects and push back the start dates of up to 19 into the first years of the second road period. The Department and Highways England currently expect that this will not significantly delay delivery of expected benefits to road users. The decisions the Department takes in response to these reviews could substantially reduce the number of project starts in 2019-20. It could also help reduce the current cost pressure, but it is not yet clear by how much. To bring the portfolio within funding available for road period 1, Highways England will need to, for example:

- reduce the scope of some projects;
- select further projects for delay or cancellation; or
- exceed its efficiency targets.

3.8 While it is good that Highways England undertook these reviews, it initially carried them out as separate pieces of work designed to achieve different objectives rather than as an integrated, fully assured review of the portfolio of enhancement projects. Highways England has now integrated the reviews of costs and benefits and of the delivery schedule. Given that the risks to deliverability and affordability were known to the Department from the outset, and considering its role to monitor the development and progress of the strategy on a real-time basis, we would have expected it to instruct Highways England to carry out a comprehensive review of the portfolio to mitigate those risks earlier.

Planning the second Road Investment Strategy

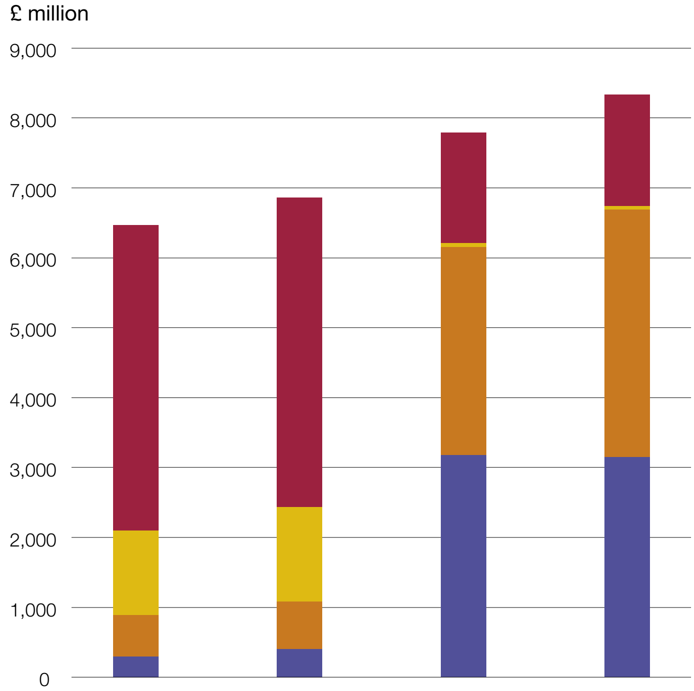
3.9 The Department and Highways England already have a reasonably clear picture of the enhancement work that the latter intends to carry out in the first years of road period 2. Highways England secured £3.1 billion of funding for enhancement projects in 2020-21 (the first year of road period 2). This would provide funding for the continuing works on projects from the first Road Investment Strategy and also provide funding towards the 15 projects to start works early in road period 2.

3.10 On current forecasts, work begun in road period 1 will cost £8.3 billion to complete during road period 2. This is an increase of £0.5 billion compared with the original forecast. The cost increase has come primarily from the 49 new projects identified by the route strategies, which were the least developed at the time of the announcement of the Road Investment Strategy. The forecast total costs of these projects had risen by 18%, compared with changes of less than 2% for more developed projects (see **Figure 12**). There is potential for further significant cost increases across the portfolio because around half of the 112 projects are still at an early stage of development.

Figure 12

Cost of the 112 enhancement projects falling in road periods 1 and 2

The cost of work to be completed in road period 2 has risen by £0.5 billion, largely due to cost increases on the 49 new projects from the route strategies



	Road period 1: baseline	Road period 1: Sep 2016 forecast	Road period 2: baseline	Road period 2: Sep 2016 forecast
Spending Review 2013	4,368	4,425	1,579	1,593
Spending Review 2010	1,211	1,353	57	55
Route strategies	593	677	2,971	3,537
Feasibility studies	299	408	3,186	3,152

Source: National Audit Office analysis of Highways England data

3.11 The Department and Highways England are applying lessons learned from the development of the first Road Investment Strategy to the second. The Department has also commissioned an evaluation of the impact of the change to the new delivery model and the move to five-year funding periods. In preparation for the second Road Investment Strategy, the Department and Highways England plan to:

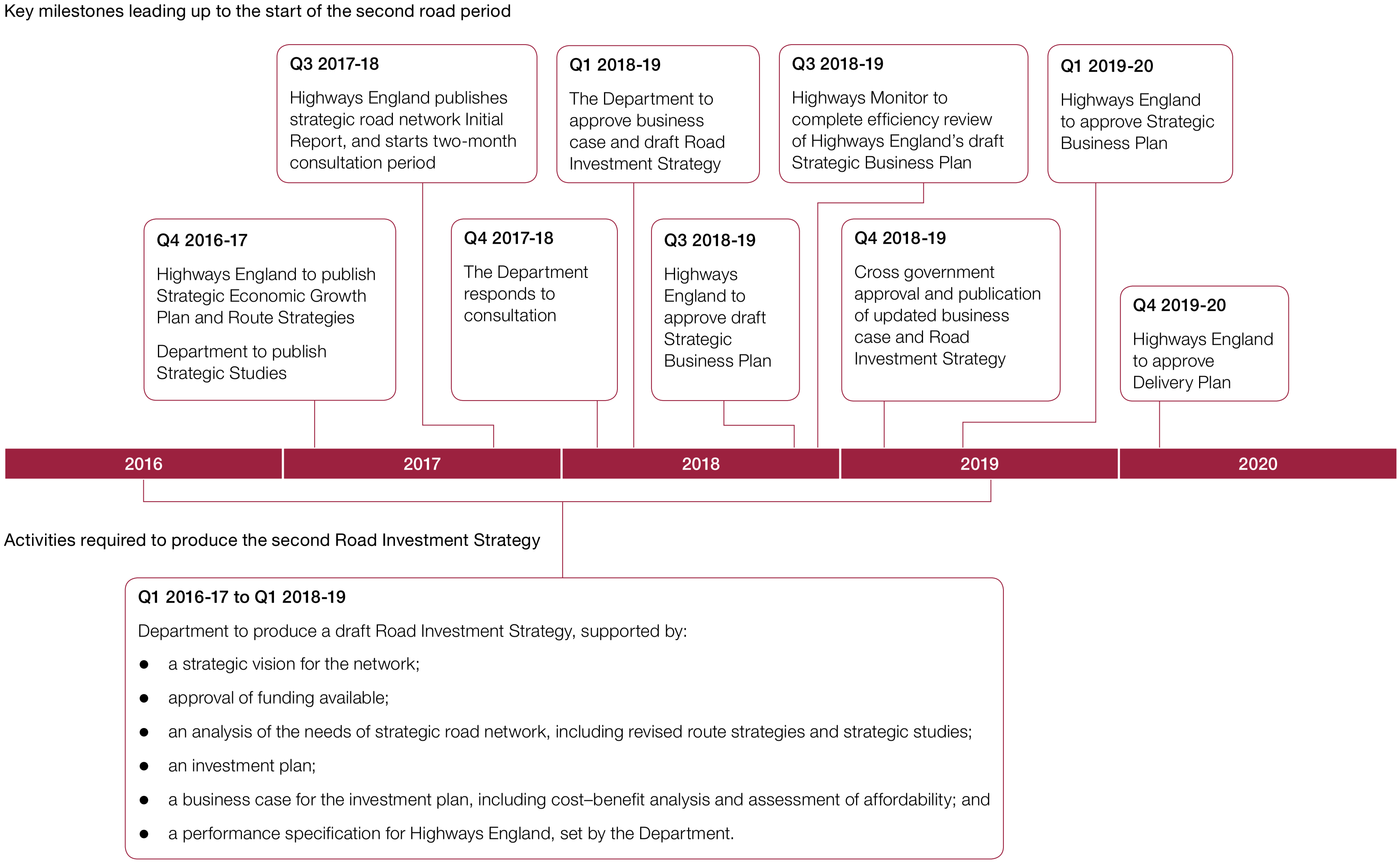
- use richer information about potential benefits of road investment, including wider economic benefits for larger, more complex and transformational projects, and consider the value for money of interventions on whole sections of the network rather than individual projects;
- give more consideration to solving issues on the network with improved maintenance and operations as well as major capital projects;
- deliver more efficiently by planning maintenance, renewals and enhancements work in a more integrated, portfolio-based way; and
- integrate planning with existing modes of transport and forthcoming rail projects, as well as planned housing and commercial developments to increase efficiency and drive economic growth.

3.12 The Department and Highways England already face a challenging timetable for completing the second strategy to a high standard. Highways England is required to publish its initial report on the priorities for improving the strategic road network during road period 2 in November 2017 and the Department plans to produce the draft of the Road Investment Strategy by March 2018. Before then it needs to develop the necessary core capability, and build a strong evidence base for future investment decisions which secure maximum value for the taxpayer. **Figure 13** shows the main activities and milestones.

3.13 Developing an integrated portfolio of road enhancement and maintenance projects for road period 2 is a major undertaking. Highways England is planning to develop its analytical and traffic modelling capability, to produce new route and area strategies and to develop a range of business cases for new projects. However, it needs to develop the capability required to improve the selection of projects for the second Road Investment Strategy. Vacancies are being filled by a combination of consultants and secondees from the Department.

Figure 13

Key milestones in the development of the second Road Investment Strategy



Source: National Audit Office analysis of Department for Transport data

3.14 There are also additional emerging challenges that the Department and Highways England will need to address before a robust plan can be finalised. For example:

- the Department needs to agree how vehicle excise duty will be allocated;
- the Department needs to establish how projects will be planned, managed and governed as the role of subnational transport bodies develops; and
- the Highways Monitor, Highways England and the Department need to agree how they will monitor progress against efficiency targets.

Future governance and capability requirements

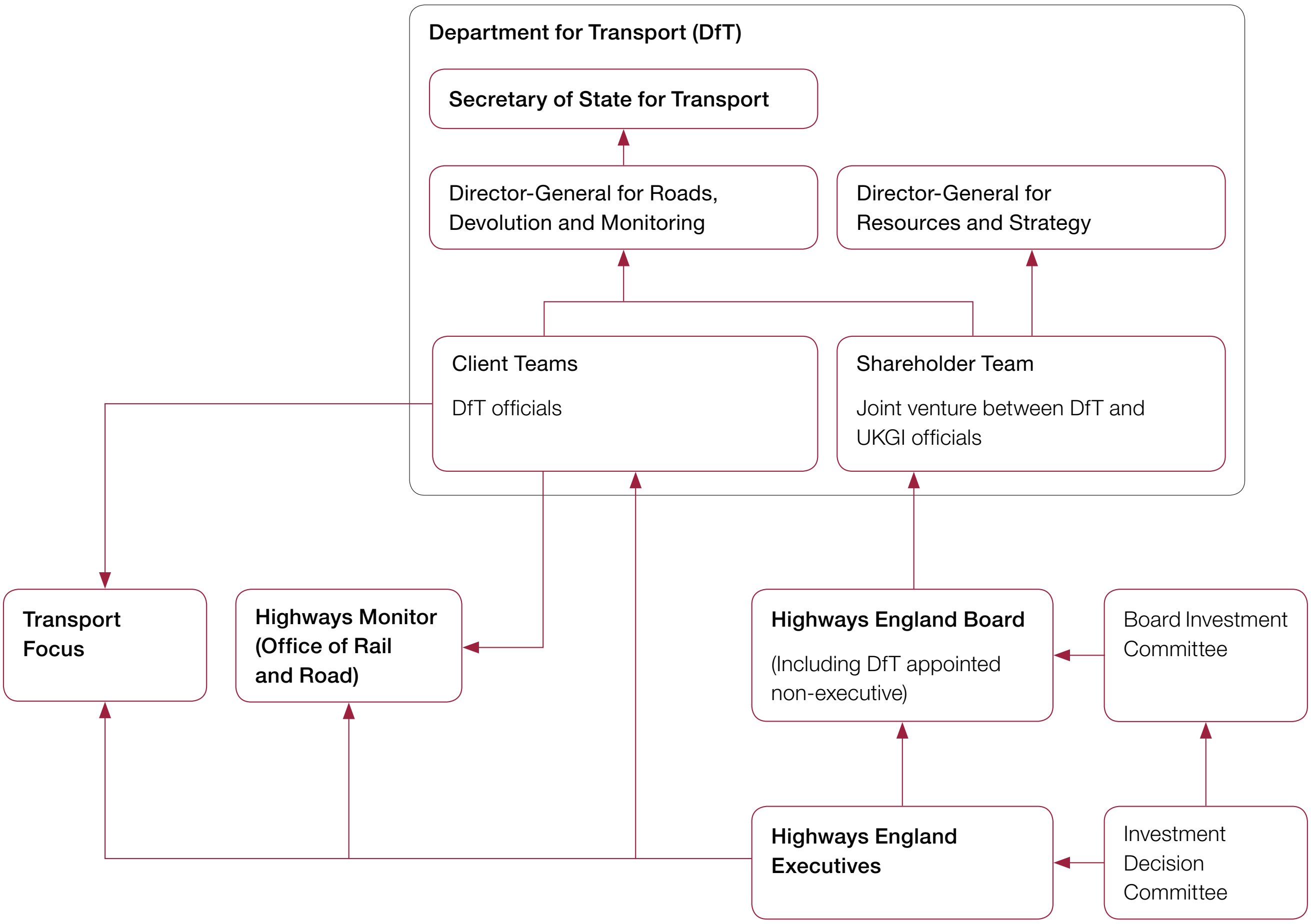
3.15 Two years into the delivery of the strategy, capability and capacity risks remain. It will be a challenge for Highways England's commercial teams to effectively manage the 57 procurements planned for 2017, and then for its major projects teams to manage the volume of projects. Highways England is currently 19% below its target headcount for procurement and commercial specialists. With so much infrastructure investment planned across the country (including, for example, High Speed 2), demand for these skills is high. There is a risk that Highways England will struggle to recruit sufficient skilled staff. It is currently working on recruiting further permanent specialists but is, for the time being, filling gaps with consultants and interim staff, but these cost on average three times more than permanent employees.

3.16 Highways England has established a change programme to enable it to develop the more sophisticated approach to, for example, strategic planning and portfolio management that it needs, given its enhanced responsibilities. It has begun work to improve its understanding and management of the overall portfolio of road investments, and has recruited experienced staff to lead and support that work. It is also developing a suite of programme management tools, processes and systems to be used consistently across its portfolio. On current plans, it will not have the full capability it needs until road period 2, starting in April 2020.

3.17 The Department is ultimately accountable for ensuring that Highways England delivers the Road Investment Strategy successfully. The Department is kept informed of Highways England's progress through a series of scheduled meetings between Highways England and two departmental teams. These are the client team, which monitors Highways England's performance, and the shareholder team, which monitors how the Highways England Board holds the company to account on behalf of the Secretary of State. Major decisions on projects of greater value than £500 million require the approval of the Department's Board Investment and Commercial Committee, and this committee receives updates on progress across the whole portfolio every six months. **Figure 14** sets out the governance arrangements.

Figure 14
Current governance arrangements

The Department monitors progress with delivery of the Road Investment Strategy through the Highways England Board and two departmental teams



Source: Department for Transport

3.18 The Road Investment Strategy will be entering a more challenging and complex phase from 2017 onwards and this will require a further step-change in Highways England's capability and stronger oversight from the Department and the Highways England Board. On current plans, future projects will be on a much larger scale than Highways England is used to. They will also be more complex, with more interdependencies with other forms of investment, such as housing, and require improved planning for wider economic benefits. For example, plans for a new dual carriageway between Oxford and Cambridge will require complex engineering and integration with broader investment plans for the region.

3.19 The establishment by the Highways England Board of a board-level investment committee to consider progress with, and risks to, delivery of the overall portfolio of enhancement and renewal projects is a positive step towards strengthening governance. However, to exercise its oversight role effectively, the Department also needs to improve its understanding of the position across the portfolio and offer effective challenge to Highways England. The Department has started to do this in its oversight of Network Rail, through the establishment of a board to consider the risks to the delivery of the plan and the affordability of Network Rail's overall portfolio.

3.20 Highways England manages and governs all projects as part of its overall portfolio, regardless of size and complexity. Our work on major rail programmes such as High Speed 2, Thameslink and Crossrail, however, has shown how complex, transformational projects can benefit from a delivery structure and governance model that sits outside the Department's core portfolio of projects. This approach was also recommended by Dame Colette Bowe in her review of governance of Network Rail's investment programme. Increases in cost estimates on large, expensive and complex projects can distort the financial position of the overall portfolio. This can result in smaller projects being delayed or cancelled to help manage the cost increases in larger projects and improve the affordability of the overall portfolio.

Appendix One

Our audit approach

1 This study examines whether the Department for Transport and Highways England are well placed to achieve value for money from the Road Investment Strategy. Our key areas of review were:

- the way the Department and Highways England drew up the Road Investment Strategy;
- the governance and delivery structure, and the effectiveness of oversight and challenge to the delivery of the Road Investment Strategy; and
- the Department and Highways England's management of delivery of the Road Investment Strategy, with a focus on the major enhancement projects.

Lessons drawn from the development and delivery of the first Road Investment Strategy and how they are being applied to the design of the second.

2 Our audit approach is summarised in **Figure 15** overleaf. Our evidence base is described in Appendix Two.

Figure 15
Our audit approach

The objective of government

The Department and Highways England have five main objectives for delivery of the strategy: support economic growth; establish a safe and serviceable network; create a more free-flowing network; improve the environment; and improve accessibility and integration of the network.

How this will be achieved

The Department and Highways England plan to spend around £11.4 billion on 112 major road enhancement projects, and a range of other road renewal projects during road period 1 between 2015-16 and 2019-20

Our study

We looked at the Department's planning and delivery of the Road Investment Strategy.

Our evaluative criteria

The way the Department and Highways England drew up the Road Investment Strategy in a structured way, with clear objectives and a focus on long-term value for money.

The governance and delivery structure, and the effectiveness of oversight and challenge to the delivery of the Road Investment Strategy.

The Department and Highways England's management of delivery of the Road Investment Strategy, with a focus on the major enhancement projects.

Lessons drawn from the development and delivery of the first Road Investment Strategy and how they are being applied to the design of the second.

Our evidence

(see Appendix Two for details)

We assessed whether the Road Investment Strategy was planned effectively by:

- interviewing staff in the Department and Highways England; and
- reviewing planning documents.

We assessed the effectiveness of governance and oversight by:

- interviewing staff in the Department and Highways England; and
- reviewing documents including board papers and minutes.

We assessed the Department and Highways England's delivery of the Strategy by:

- reviewing portfolio management documentation; and
- interviewing staff from Highways England and the Department.

We assessed whether lessons had been learned by:

- reviewing planning documentation; and
- interviewing staff from the Department and Highways England.

Our conclusions

The Road Investment Strategy announced by the Department in December 2014 is an important step towards better long-term planning. However the speed with which it was put together created risks to deliverability, affordability and value for money. Highways England is beginning to address these risks, but we are now nearly two years into road period 1. If the Department and Highways England do not take decisive action before Highways England publishes the next iteration of its delivery plan in summer 2017, there is a risk that the first Road Investment Strategy will not deliver optimal value, and that current challenges are carried forward into future road investment periods.

In order to meet the current challenges the Department and Highways England will need to consider delaying or cancelling some of the 112 projects. While this may mean that some stakeholder expectations are not met, value for money depends on the Department and Highways England proceeding, in this and in future road periods, with a realistic and affordable plan, and focusing resources on those projects which offer the best value to taxpayers and road users.

Appendix Two

Our evidence base

1 Our conclusions on whether the Department for Transport (the Department) and Highway England are well placed to deliver value for money from their planning and delivery of the Road Investment Strategy were reached following our analysis of evidence collected between August 2016 and February 2017.

2 Our audit approach is outlined in Appendix One.

3 We examined whether the Department and Highways England drew up the Road Investment Strategy in a structured way, with clear objectives and a focus on long-term value for money:

- We carried out interviews with stakeholders, including: the Department (staff from the strategic roads directorate); Highways England; the Highways Monitor, part of the Office of Rail and Road; and Transport Focus.
- We reviewed documentary evidence on the preparation of the first Road Investment Strategy, including the strategy itself and associated delivery plans; evidence produced by the Department and Highways England on the needs of the road network, such as route strategies and feasibility studies; and business cases for individual projects.

4 We examined the governance and delivery structure, and the effectiveness of oversight and challenge to the delivery of the Road Investment Strategy:

- We assessed the effectiveness of the Department and Highways England's governance structure through examination of plans to develop capability; Highways England board papers and minutes and papers and minutes of board committees and Highways England executive committees, as well as records of discussions between the Department and Highways England.
- We held discussions with senior staff in Highways England, the Department and the Highways Monitor to better understand how the assurance and governance processes work in practice.

5 We examined the Department and Highways England's management of delivery of the Road Investment Strategy, with a focus on the major enhancement projects:

- We reviewed portfolio-level progress reports, including information on cost estimates, progress against schedule and key risks to delivery.
- We reviewed working documents produced by Highways England and the Department about plans to review the portfolio of enhancement projects to improve affordability, deliverability and value for money.
- We conducted interviews with the Department and Highways England about progress with delivery and development of the 112 enhancement projects, Highways England's approach to engaging with the supply market, and progress with bringing together the range of enhancement, renewal and maintenance work as an integrated portfolio.

6 Lessons drawn from the development and delivery of the first Road Investment Strategy and how they are being applied to the design of the second:

- We interviewed members of teams within the Department and Highways England about their plans for developing the second road investment strategy.
- We reviewed planning documents, setting out the process, timetable and range of activity being carried out to develop the second strategy.

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