

Efficiency Report

Year 4

2023-24



“ National Highways continues to be committed to connecting the country and driving social value through our focus on safety, customer and delivery. ”



Contents

Foreword	5
Executive summary	6
1. Introduction	8
1.1. Efficiency overview	8
1.2. Types of efficiency	9
1.3. Split of our RP2 efficiency target	12
1.4. Background to the efficiency challenge	15
1.5. What efficiency means to National Highways	16
2. How we will deliver the KPI	19
3. Change control	21
4. Central risk reserve (CRR)	22
4.1. Overview	22
4.2. Current position	22
5. Inflation	23
6. Managing risk and opportunity	24
7. Efficiency performance overview: 2020-2024	25
8. Embedded efficiency	27
8.1. Capital enhancement programme	27
8.1.1. Outturn vs. baseline cost (primary evidence)	28
8.2. Capital renewals	29
8.2.1. Outturn vs. baseline cost (primary evidence)	30
8.3. Operational, business and maintenance expenditure (opex) and non-roads capital expenditure (capex)	32
8.3.1. Operations, maintenance & business expenditure (opex) – outturn vs. baseline cost	33
8.3.2. Non-roads capex – outturn vs. baseline cost	35
9. Measured efficiency	36
9.1. RP2 generated efficiency	36
9.1.1. Evidence	38
9.1.2. Whole life cost (WLC) savings	38
9.2. Carryover efficiency	39
9.2.1. Evidence	39

10. Conclusion	40
11. Appendices	42
Appendix A – Capital enhancements secondary evidence	42
Appendix B – Capital renewals secondary evidence	46
Appendix C – Operational expenditure (opex) secondary evidence	49
Appendix D – Non-roads capital expenditure (capex) secondary evidence	50
Appendix E – Capability	51
Appendix F – Glossary of terms	53



Foreword

National Highways is committed to connecting the country through delivering the outputs, benefits and outcomes contained within our second Road Investment Strategy (RIS2). These are managed through a suite of performance metrics, which help us to assess our performance.

As Chief Financial Officer, I am the executive lead on delivering our efficiency Key Performance Indicator. This is an accumulative target of **£1.995 billion**, set across the five years of the RIS and we measure our performance through delivering against a set of annual milestones.

I am pleased that at this stage of the RIS we have met our cumulative year-four efficiency milestone of **£1,220 million**. This demonstrates that the organisation is working hard to deliver our overall target through identifying and driving innovative and efficient ways of working across all aspects of the business, including working collaboratively with our supply chain.

We are proud of what we have delivered to date but recognise that there is still a long way to go to maintain and build on the good progress made toward delivering the full £1.995 billion target. Working closely with our Monitor, the Office of Rail and Road (ORR), this report summarises the primary and secondary evidence which they use to assure and validate the value of our achievement to date. It contains our current performance, our trajectory, and our summary of macro-economic headwinds, such as inflation.

We are also preparing for the third road period. This will recognise increasing stakeholder expectations to enhance taxpayer value further through improving safety performance, reducing our environmental impact, and enriching customer experience. This all needs to be delivered efficiently and effectively if we are to meet our future commitments.



Scott Dale
Chief Financial Officer

Executive summary

The government’s Road Investment Strategy (RIS) enables us to operate, maintain and improve England’s strategic road network (SRN). This supports the millions of people using the SRN and provides economic benefits to communities and businesses who live and work alongside it.

The RIS sets out the delivery, performance expectations and our funding for a five-year period, referred to as a ‘road period’. We are currently in our second road period (2020-25) referred to as ‘RP2’. This forms the basis of our Delivery Plan, which is updated annually to reflect any agreed changes to our deliverables, funding, or targets in-period.

The efficiency target was set by the Department for Transport (DfT) after detailed scrutiny by our Monitor, the Office of Rail and Road (ORR). It is designed to be stretching but achievable, without compromising the safety and welfare of people working or travelling on the network, or the long-term sustainability of our supply chain. It requires working closely with our supply chain and maintaining a high level of innovation in everything we do.

The RIS requirement for RP2 is to achieve the efficiency target of £1.995 billion by March 2025 (referred to as our efficiency Key Performance Indicator (KPI)). Efficiency is built into our RP2 funding, and to successfully achieve the efficiency KPI we need to deliver agreed outputs and outcomes against this. To date, we have successfully achieved our 2023-24 milestone of £1,220 million by delivering £1,332 million of efficiency.

Whilst this is a positive step toward the full RP2 target, we note several challenges as we enter the final year. Unfunded headwinds, including inflation, continue to have an effect and we regularly engage with ORR to evaluate these unfunded headwinds, and to agree how they will be reflected in our efficiency reporting.

Efficiency delivery requires a comprehensive forecast of costs and outputs through to 2025, and this inevitably carries a degree of uncertainty. Our 2020-24 milestone performance and RP2 forecast is shown in Fig.1. For RP2 we are forecasting to achieve the £1.995 billion target, though highlight that this is subject to some uncertainty, detailed within this report.

2020-24		RP2
Milestone	Actual	Forecast
£1,220m	£1,332m	£2,257m

Figure 1: Overall milestone performance and five-year trajectory

Alongside the importance of hitting in-year milestones on the way toward the full RP2 target, we must also have a robust audit trail of supporting evidence to demonstrate how. This includes written case studies providing narrative on programme-wide and scheme-specific initiatives that have contributed to efficient delivery, alongside unit cost movement.

Our achievement in excess of the 2020-24 milestone, together with the provision of high-quality supporting evidence, demonstrates our strong performance against the KPI so far. This is covered in the body and appendices of this report, and, as we enter the final year of RP2, we will build on this work, continuing our positive trajectory toward the RP2 target.



1. Introduction

1.1. Efficiency overview

Since our formation as a government-owned company in 2015, we have worked hard to become a world-leading service provider in managing, operating, and maintaining the 4,313 miles of England's SRN that connects the country and carries 34% of all road journeys and 68% of freight journeys in England.

Our objective is to ensure that these journeys provide a positive experience in safety, reliability, and predictability. We play a critical role in supporting the economy through national productivity and sustaining reliable connections between businesses, labour markets and international gateways.

As part of our license requirement under section 5 of the *Infrastructure Act 2015 (the Act)*, we must operate efficiently and demonstrate value for money in delivering all our agreed outputs and outcomes.

We do this by balancing efficiency against the delivery of our other commitments under the Act, such as improving the safety of the road network and ensuring its effective operation. This means that efficiency can't be achieved at the expense of these other requirements. Due to its importance, efficiency is set as one of our 12 KPIs.

The principles of RP2 efficiency are agreed with ORR and DfT and are set out in our published *Efficiency and Inflation Monitoring Manual (EIMM)*. In the EIMM we commit to publish an annual report that sets out the progress and supporting evidence as to how we have met the agreed annual milestones and details the trajectory towards achieving the five-year KPI target.

We currently have an RP2 efficiency target of £1.995 billion against a £23.1 billion post-efficient budget. We track and measure our performance against this target through annual 'milestones', which are set to ensure that we deliver the RP2 efficiency target overall. This is the fourth such report for RP2 and covers performance for 2020-24.

1.2. Types of efficiency

1.2.1 Embedded efficiency

Put simply, embedded efficiency is:

“The successful delivery of the required outputs and outcomes for our agreed post-efficient budget”.

In the lead up to RP2, our embedded efficiency milestone was established by developing detailed plans for the schemes and activities where the delivery sits entirely in RP2. These include how much of the SRN we are going to renew, maintain, and build through our renewal and major construction schemes as well as our activities to operate the SRN.

To accurately determine our embedded budget, we produced a range of cost estimates. We worked with ORR and DfT to provide confidence that these estimates were robust, and to agree the proportion of the full funding removed from our *“pre-efficient budget”* to establish our *“post-efficient budget”*. We must keep our spending within this post-efficient budget to successfully achieve the embedded element of the efficiency KPI. The high-level principle of our post-efficient budget is shown in fig.2:

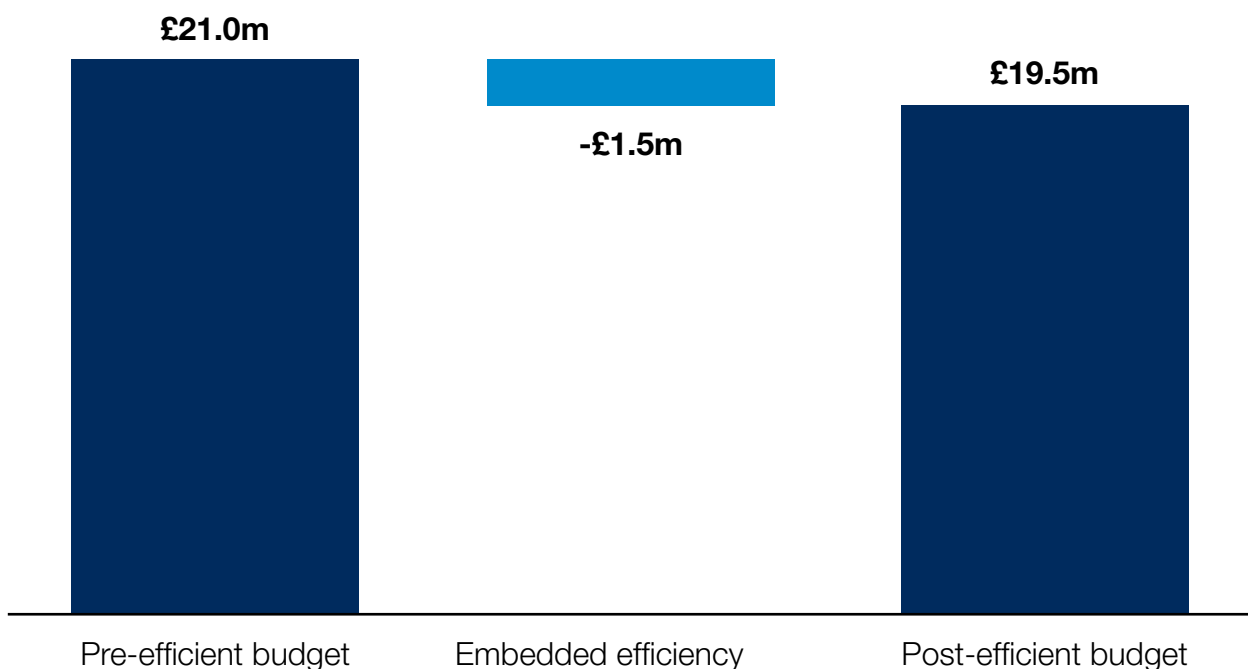


Figure 2: High-level RP2 embedded efficiency principle

In addition to successful delivery against our budget, it is recognised that there is uncertainty in setting a five-year plan. For example, inflation can run higher or lower than initial budget forecasts. As the road period progresses, we monitor and work with ORR to adjust our reported efficiency performance to account for such occurrences, whether positive or negative. This is covered in more detail under *Section 3 – Change Control* and *Section 6 – Inflation*.

For embedded efficiency, the delivery of outputs for our agreed post-efficient budget is known as ‘Primary’ efficiency evidence. Supporting this is ‘Secondary’ efficiency evidence, which is a combination of written case studies and analysis of unit cost movement. Secondary evidence is designed to demonstrate that efficient delivery is through our concerted and targeted efforts to improve efficiency, and it serves as a way by which we can share best practice across the business. The reporting structure of embedded efficiency evidence is shown in fig.3:

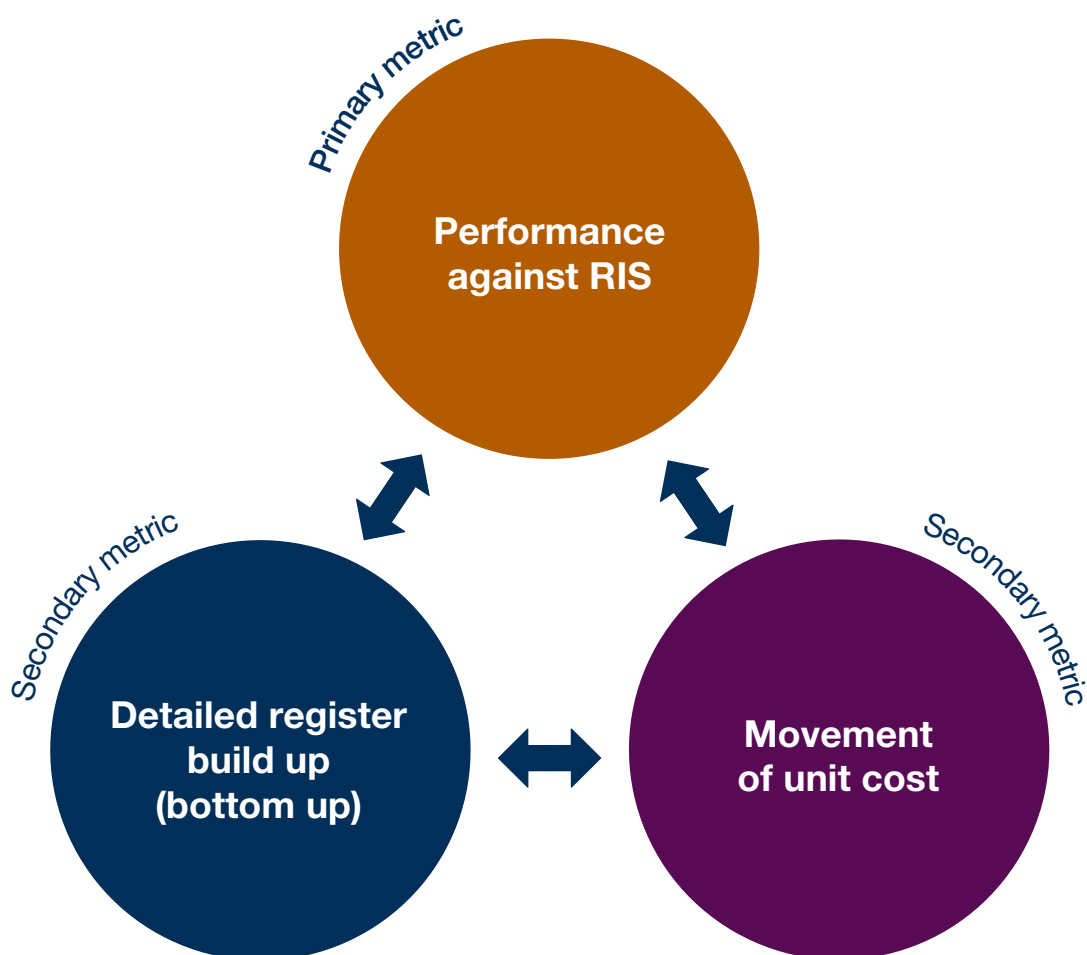


Figure 3: RP2 embedded efficiency reporting structure

1.2.2 Measured efficiency

Put simply, measured efficiency is:

“Written case studies detailing efficiency savings for work that has been or will be delivered mainly outside of RP2”.

Measured efficiency consists of:

- **Major schemes** where work is undertaken in RP2, but where delivery would be achieved (post-2025), such as the Lower Thames Crossing and the A417 Missing Link schemes.
- **“Carryover” efficiency** from 2015-2020 (RP1), which is efficiency realised on schemes where significant work was undertaken in RP1, but where the final delivery date is in RP2.
- **Whole-life cost (WLC)** efficiency, where we spend more in RP2 to generate future cost savings, such as investment in better street lighting technology.

There are no pre- or post- efficient budgets for this activity in RP2. This is because the work doesn't lend itself to the embedded method of measuring efficiency, as the full costs won't be known until the scheme or work completes outside of RP2. As a result, measured efficiency is captured through the production of efficiency case studies in much the same way as we demonstrated efficiency in RP1. The reporting structure of measured efficiency evidence is shown in fig.4:

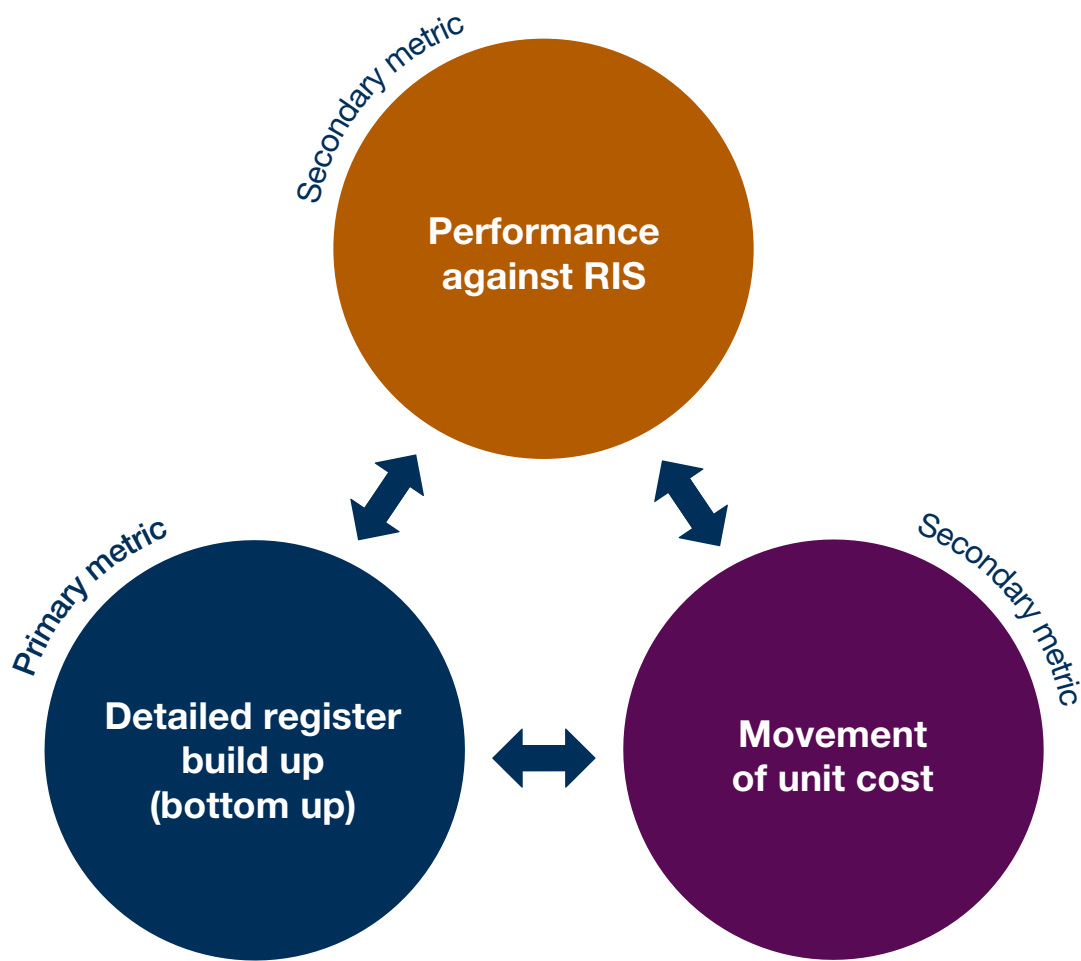


Figure 4: RP2 measured efficiency reporting structure

1.3. Split of our RP2 efficiency target

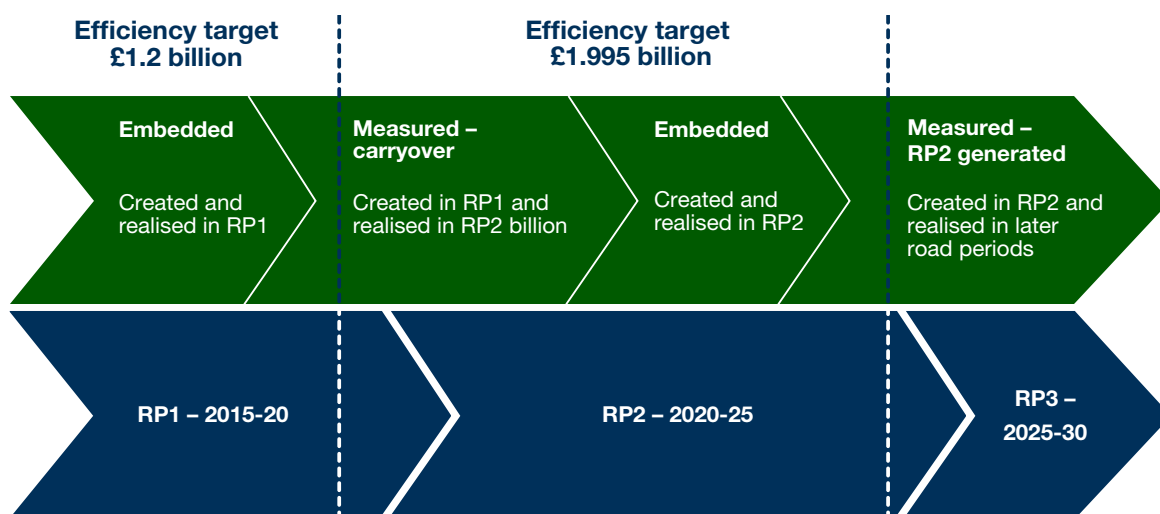


Figure 5: Overview of the efficiency journey from RP1 onwards

We track and measure our performance against the efficiency target through annual ‘milestones’, which are set to ensure that we are on course to deliver the full RP2 efficiency target. **Embedded** efficiency has milestones accounting for most of our efficiency target (£1,497 billion), with **Measured** efficiency accounting for the remainder (£498 million). Fig.6 and fig.7 below illustrates how the efficiency KPI is structured and outlines where the £1.995 billion is expected to be delivered:

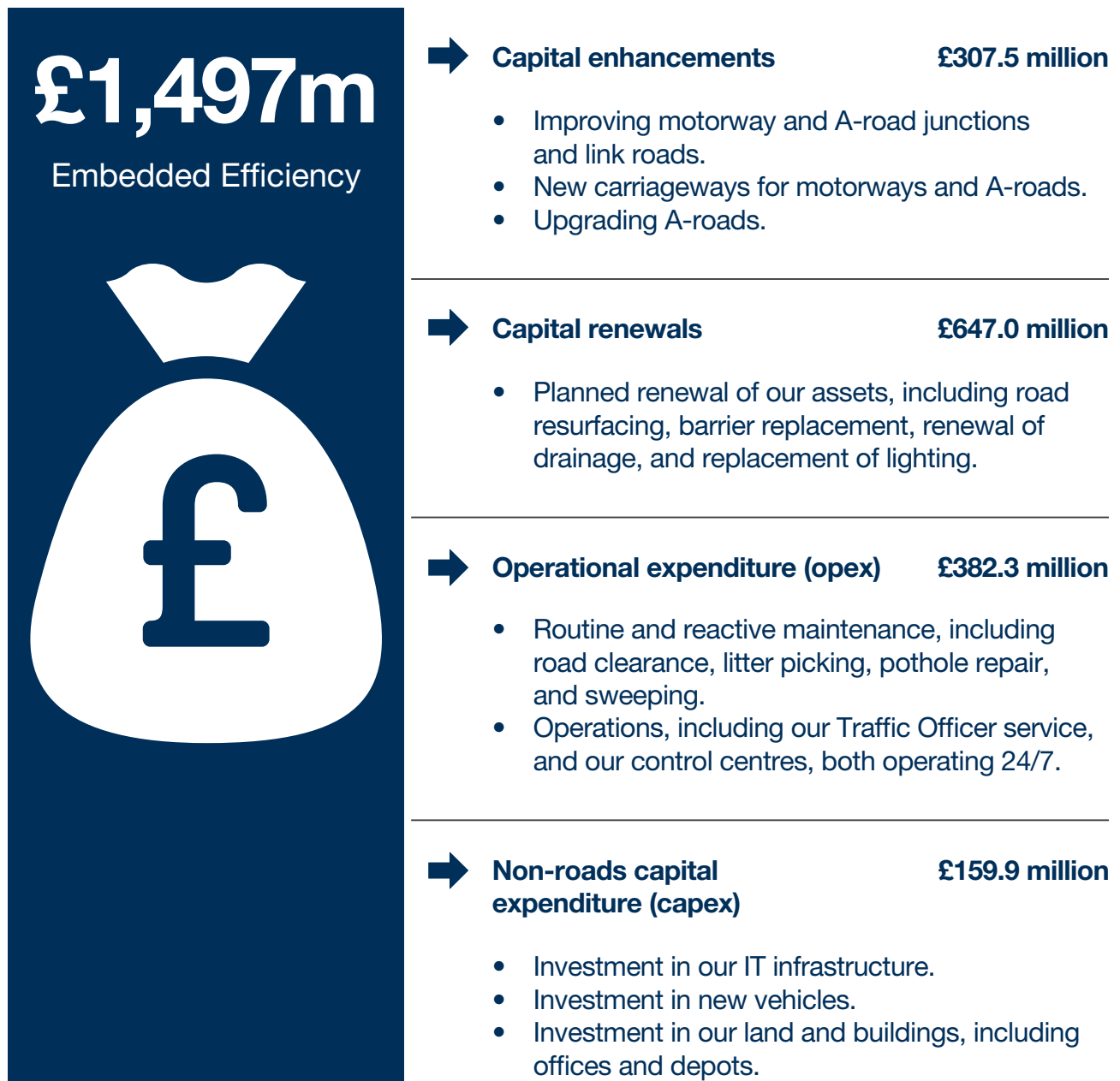


Figure 6: RP2 embedded efficiency value and breakdown



- ➔ **RP2 generated schemes** **£136.6 million**

 - Primarily applies to six of our largest capital enhancement schemes that were in development at the outset of RP2, with all (or most) of their delivery in future road periods. See *Section 9.1* for further detail.

- ➔ **Carryover efficiency from RP1** **£362.0 million**

 - Written case studies detailing efficiency, which has been identified and secured in RP1 but is also realised in RP2.
 - Carryover efficiency applies to efficiencies from all RP1 projects and programmes with expenditure profiles which span road periods.

- ➔ **Whole-life cost (WLC) savings** **£0.0 million**
(no milestone)

 - A license requirement as per the *Infrastructure Act 2015* to take a WLC approach to our assets.
 - Spending more in RP2 to ensure savings are made in future, and to improve the lifespan of our assets.
 - No milestone to achieve but ensures that we don't "lose" efficiency by spending more of our post-efficient budget to realise future savings.

Figure 7: RP2 measured efficiency value and breakdown

1.4. Background to the efficiency challenge

We anticipate that the coming years will see changes in transportation, road travel and personal and commercial mobility. We are already planning for future road periods where technology, WLC investment, carbon footprint reduction and a long-term view of efficiency will be more important than ever.

Following our success in RP1 where we delivered efficiency in excess of the £1.2 billion target, the government originally set our RP2 efficiency target at £2.23 billion. In 2021, we had a £3.5 billion funding reduction which led to a revised efficiency target of £2.11 billion.

In 2023-24 DfT received a flat cash settlement in the 2022 Autumn Statement, despite significant inflation pressures. This reduced our capital departmental expenditure limit (CDEL) and led to a further reduction in our funding and a subsequent reduction to the efficiency KPI target. Following this change the RP2 KPI target is now set at £1.995 billion, with the in-year 2023-24 milestone unchanged.

While the year-four milestone is unchanged, the new £1.995 billion target is used throughout this report when discussing the RP2 target. Further detail is contained in *Section 3 – Change control*.

From ORR's published assessment of our efficiency performance in 2022-23 we have worked throughout 2023-24 to address their feedback on key areas of development whilst maintaining our high performance in areas they have already assessed as 'good'. To do this we have collaborated closely with ORR through a combination of our normal working methods, the further development of the regular *Efficiency Engagement Plan* (EEP) working group (established in 2022-23), and regular discussions on ad-hoc issues throughout the year. Consequently, we believe that we have successfully improved our evidence base to demonstrate our ongoing performance across the efficiency environment.

1.5. What efficiency means to National Highways

“Efficiency is delivering an improvement in the relationship between cost, output and outcome”.

To ensure that we successfully achieve this, our three core pillars of efficiency are economy, productivity, and effectiveness.

Economy

Minimising the cost of our work while maintaining output delivery.

For example:

- Re-using site-won materials for construction, such as topsoil, where previously the materials would be removed and disposed off-site (see fig.8).
- Refinancing existing Private Finance Initiative (PFI) contracts to get a better deal, such as refinancing the M25 in RP2.
- Selecting the best premises for our office locations, such as our Leeds office change in 2021, resulting in cost savings while still meeting the needs of staff and the business.

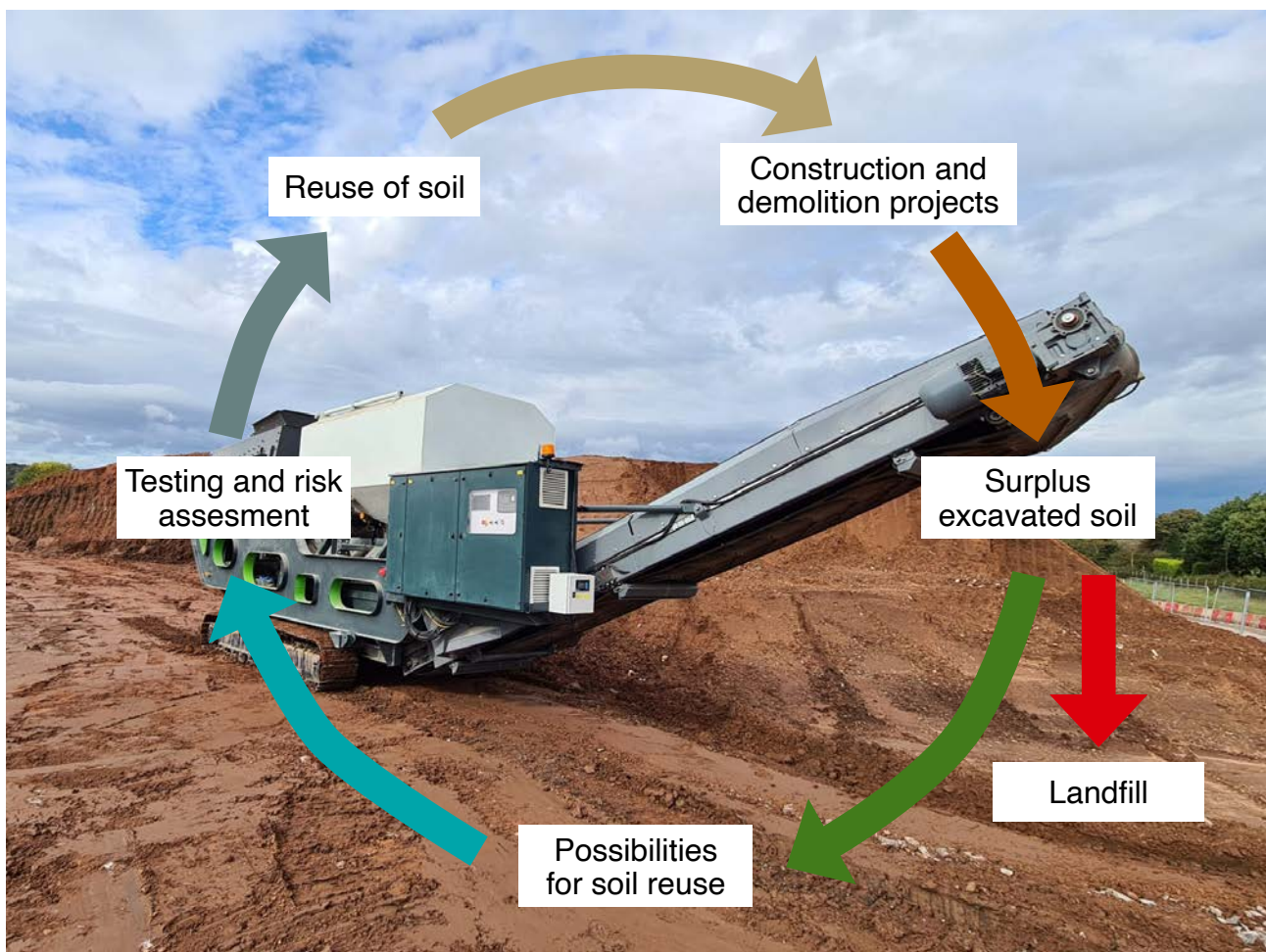


Figure 8: re-using site-won topsoil

Productivity

The relationship between outputs and the resources used to deliver them, working more quickly and intelligently, without compromising quality and safety

For example:

- Optimising our asphalt pavement renewals by deploying new and innovative techniques and technologies, such as the use of warm mix asphalt rather than hot mix asphalt. This reduces material heating time on site allowing work to be completed more quickly and reduces energy consumption without affecting quality (see fig.9).
- Aligning our programme of works so that multiple activities can be carried out in the same programme window.



Figure 9: asphalt laying techniques temperature and drying time

Effectiveness

Spending wisely, doing the right thing, and innovating; improving our outcomes for now and the future.

For example:

- Using the latest LED technology in our lighting, to reduce future maintenance visits, extend the life of the assets, reduce the number of streetlights required (as each lantern offers greater lighting coverage), and to reduce spend on electricity. Providing short and long-term WLC benefits (see fig.10).
- Our 'Fix Now' initiative, which empowers our own highways inspectors to complete small jobs on the road immediately, without having to arrange and pay our maintenance and repair (M&R) contractor to do the work.



Figure 10: LED lighting (white) vs. traditional sodium lighting (orange) on the M62 in Yorkshire

2. How we will deliver the KPI

We have developed our plan which sets out the end-to-end approach for efficiency creation, governance, assurance, and controls. It is based on the creation of an integrated suite of change programmes. These have been designed to generate a pipeline of efficiency ideas that collectively exceed the KPI target, which increases confidence in achieving it. The pipeline has four enabling themes:

- **Procurement** – improvements developed through the Routes to Market programme. This includes the use of Regional Delivery Partnerships (RDP) (six-year design and build contracts aligning all parties' interests).
- **Effective operations** – improving our operational performance, including the use of renewals efficiency levers which are initiatives that are repeatable across schemes, and delivering innovative continuous improvement to our processes through the Operational Excellence (OE) programme.
- **Improved capability** – including our people, senior leadership team, supply chain and our internal RP2 continuous improvement plan: *Highways England 2025 (HE2025)*.
- **Effective processes** – improving the processes we use, including the use of LEAN techniques, and the Major Projects transformation programme.

The cross-company improvements under each of the enabling themes are summarised in Fig.11. We regularly review the value of these by working collaboratively across the business, ensuring that secondary efficiency evidence is captured and assured on our Digital Efficiency Register (DER). This reflects the efficiency value and the associated narrative of the initiatives linked to these enabling themes.



	Major Projects	Commercial & Procurement	Operations	Safety, Engineering & Standards	Corporate
Procurement		AD contract model roll-out Category management Strategic procurement Alliance and RDP models		M.C.H.W. review	
Effective Operations	Transformation programme	3yr rolling improvement programme Integrated estimating system procurement	Operations Excellence programme	Standards review Lean programme	Commercialising the business Data management strategy Benchmarking programme Make not buy policy
Effective Processes	Capital programme management development PPM upskilling System changes to cost, risk & schedule management	Specialist skill development IT, commercial modelling, utility engagement, improvement mgmt., dispute resolution	Asset management strategy	Innovation and modernisation research programme Concrete barrier cost reduction programme	People engagement Specialist skills development People upskilling programme HE 2025/2050 programmes
Improved Capability	Transformation programme	Contract control framework CIPS Advanced Award	Delivering excellence programme	Departures review Fit for the future programme	Quality management system development (Way we work)

Figure 11: Cross-company improvements under each enabling theme

We operate in a dynamic environment that considers changes in stakeholder expectations. This means that the above core levers will increasingly be supplemented by other strategies and changes that have been developed in RP2 and will inform RP3 planning, which is now at an advanced stage.

3. Change control

In preparing a five-year delivery programme it is normal for there to be some portfolio re-balancing. This is governed by a formal change control process where significant funding impacts, and any resulting change to the efficiency target, are agreed with DfT.

During 2023-24, there were several changes, most notably a reduction in our overall funding for RIS2. This reduction ultimately impacts our opportunity to deliver efficiencies and a subsequent update to the efficiency KPI target was agreed to reflect this. Following this change the RP2 KPI target has been reduced to £1.995 billion, with the 2023-24 milestone unchanged.

Despite this change, the RP2 efficiency target poses the same challenge as it did when it was originally set in 2020. Though it was reduced in value, the proportional level of efficiency we need to deliver is consistent. It now amounts to 8.6% of our budget, which is slightly more challenging than the 8.1% agreed at the start of RP2.



4. Central risk reserve (CRR)

4.1. Overview

RP2 post-efficient funding agreed in 2020 included a central risk reserve (CRR) of £1.716 billion to cover:

- The additional cost associated with greater clarity of the scope required.
- Risk within our control which was not included in scheme baseline funding.

In line with the EIMM, unused funds within the CRR at the end of the road period can be claimed as an efficiency, and this is designed to incentivise effective risk mitigation. To manage this, a formal governance and control process is in place, based on the following three stages:

- Project managers identify and evaluate the issues leading to being unable to deliver within their post-efficient budget and the reasons why the risk cannot be mitigated effectively. This is normally to recognise scope which was not mature when the initial post-efficient funding baseline was set.
- We internally review the scheme case, make provision for CRR drawdown, where appropriate, and assess the potential future portfolio requirement for drawdown.
- Executive Directors review the case and decide whether to approve or decline CRR drawdown.

The balance of the CRR available may reduce or increase dependent on approved changes to projects' RP2 cost forecast. Drawdown approval increases the post-efficient baseline of relevant schemes and reduces the CRR balance available to manage future portfolio risk. Conversely, baseline funding of individual schemes that are forecasting an underspend may be reduced to top up the CRR and increase the balance available for the remainder of RP2.

4.2. Current position

As described in the 2022-23 efficiency report, the value of the CRR was reduced from £1.716 billion to £1.357 billion as part of the 2021 Spending Review funding settlement.

As of March 2024, there is £488 million remaining of the CRR funding.

This position is consistent with the drawdown planning assumptions set at the beginning of the road period post- change control. We anticipated that there would be a significant drawdown before efficiency generating changes were introduced, enabling the CRR to be topped up. The impact of the CRR continues to be assessed as RP2 progresses.

5. Inflation

Inflation is part of the overall funding risk that we carry. This means that there is an absorbed upward cost pressure where actual cost is greater than funded, and a downward pressure where actual cost is less than funded. We have a commitment to evaluate the impact of inflation, both annually and cumulatively, and demonstrate that we are taking reasonable steps within our control to minimise the impact. We discuss with ORR the level of impact that this has on our reported performance.

There is no single publicly available model that enables inflation to be forecast and evaluated for the type of infrastructure work that we undertake. Therefore, we have developed and agreed with ORR a method of calculation that uses a bespoke model, sourced by the Building Cost Information Service (BCIS). This draws upon several data and information sources.

This model was used to agree with the DfT, ORR and HM Treasury a funded value of inflation for RP2 based on the following:

	2020-21	2021-22	2022-23	2023-24	2024-25
Capital Works	3.41%	3.75%	4.57%	4.25%	3.53%
Operating costs inc. Electricity	2.00%	2.00%	2.00%	2.00%	2.00%
Maintenance Contracts	2.76%	2.76%	2.76%	2.76%	2.76%

Figure 12: Agreed funded value of inflation

In RP2, the difficulty of forecasting future inflation has been exacerbated by uncertainty created by world events, such as Covid-19 and ongoing geopolitical tensions. Whilst actual inflation was initially below funded levels, a sizable increase in inflation values between 2021-23 caused significant cost pressure to the business. Recent falls in inflation values in 2023-24 are welcomed but compound inflation pressures caused by the earlier spike still exist.

This has led to a position where there are unfunded cost pressures of **£523 million** to March 2024, and this is reflected in our reported efficiency position.

The ORR has accepted the adverse impact that high levels of unfunded inflation has had on the KPI. They support the need for an adjustment to the reported efficiency value so that we are not penalised for cost increases over which we have no control. Following 2022-23 where we made an inflation adjustment for non-roads capital expenditure and enhancements, in 2023-24 we have adjusted capital renewals and operational expenditure. This is following our ongoing collaboration with ORR throughout the year, with the position now fully reflecting the efficiency impact of inflation across the whole business.

6. Managing risk and opportunity

A key aspect of efficient delivery is effective risk and opportunity management. To enable this, we closely monitor potential and realised risks to ensure that effective plans are in place to minimise any negative impact on performance. There is an equivalent process to ensure that we maximise the positive impact of identified opportunities on our performance.

Identified through this process are the following five risks to which we apply a higher degree of governance scrutiny:

- **Further schedule movement for the capital enhancement portfolio** – this recognises the number of schemes requiring future external planning approval to proceed. It includes schemes originally scheduled to open for traffic (OfT) in RP2 but where slippage has occurred, and its resultant impact on the efficiency target and efficiency performance.
- **Delivering capital enhancement outputs within post-efficient funding** – including the future potential draw down on the CRR.
- **Unfunded additional cost outside of our control and not within the scope of the CRR.**
- **Actual inflation exceeding the value included in post-efficient funding** and the resultant impact on cost growth, as detailed in *Section 5*.
- **The impact of our capital renewals output assessment.** This concerns our target asphalt pavement depth and what we have delivered. Greater depth results in greater asset longevity, meaning a reduced maintenance need. Ultimately this results in lower future costs and reduces disruption to customer journeys. Alongside pavement depth, it also concerns the agreed output delivery volume for “key asset types” as per our published *Delivery Plan 2020-2025*.

7. Efficiency performance overview: 2020-2024

We have successfully achieved the four-year milestone of £1,220 million, having delivered £1,332 million of efficiency to date.

An overview of this is shown in Fig.13, with the subsequent sections of this report providing the detail as to how we have achieved this by efficiency category. Alongside financial performance, we have also worked to ensure that we have delivered the outcomes and outputs required to operate, maintain, and improve the SRN, which is also outlined in the subsequent sections of this report.

The figure below shows that we exceeded the milestone by 9.2% (£112 million), putting us in a strong position as we enter the final year of RP2. We also reference the section and page number where you can find further information to understand how we achieved against this reported position.

		Total efficiency	Section and page number
Embedded	Capital enhancements	-£30m	Section 8.1 (page. 27)
	Capital renewals	£294m	Section 8.2 (page 29)
	Operational expenditure	£389m	Section 8.3 (page 32)
	Non-roads capital expenditure	£149m	Section 8.3 (page 32)
	TOTAL embedded	£802m	
Measured	RP2 generated	£228m	Section 9.1 (page 36)
	Carryover	£302m	Section 9.2 (page 39)
	TOTAL measured	£530m	
TOTAL		£1,332m	

Figure 13: Overview of 2020-2024 cumulative efficiency performance



8. Embedded efficiency

When the budget of a project, programme or activity has already been reduced to account for an efficiency saving, we refer to this budget as ‘post-efficient funding’ with an inbuilt ‘embedded efficiency’. The programmes of work detailed within this section have post-efficient funding, which is included in the efficiency target, and they have pre- and post-efficient baselines that we use to assess efficiency performance.

We achieved £801.9 million of embedded efficiency value for the period 2020-24 by delivering most of our agreed outputs within budget. In line with the EIMM, capital enhancement efficiency is reported when relevant schemes achieve OfT status. There were 21 schemes OfT for the cumulative period 2020-24 to date.

The primary evidence for demonstrating embedded efficiency is the delivery of the output or outcomes for the baseline funding provided. For example:

- **Capital enhancement programme** – a scheme reaching Start of Works (SoW) or OfT status.
- **Capital renewals programme** – replacement of the target volumes of carriageway surface or other projects required to keep our network safe and serviceable.
- **Business or operational costs** – improving and maintaining business effectiveness, for now and in the future.

We are progressing well against our *Delivery Plan 2020-2025*, as outlined in our published *Delivery Plan Update 2023-2024* and we expect to continue this trajectory as we approach the end of RP2. Initiatives enacted to support this include ‘Intelligent Contracting’, which improves how we work on our contracts with suppliers, and ‘Fix Now’, which provides our highways inspectors the ability to complete small jobs on the SRN.

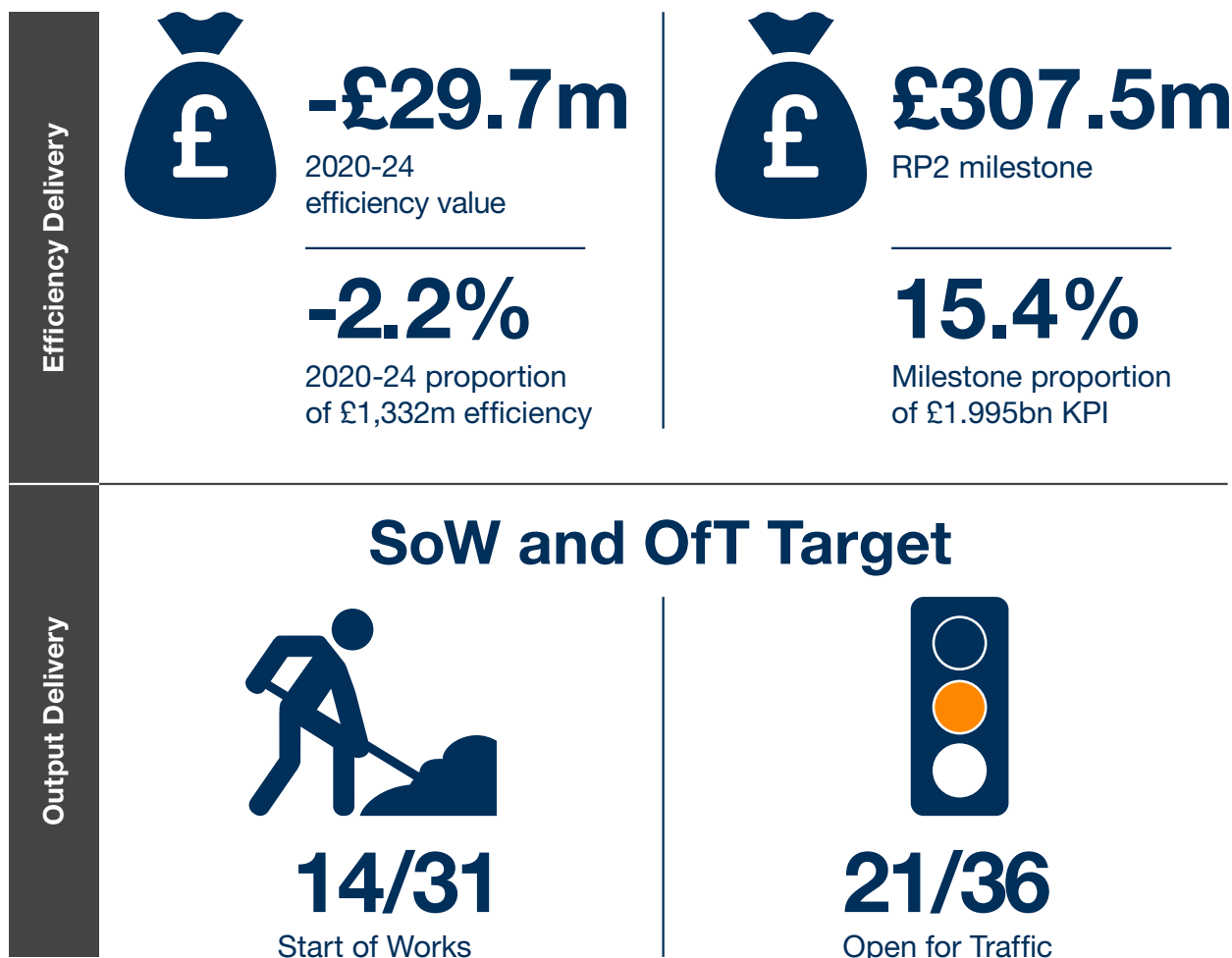
8.1. Capital enhancement programme

The capital enhancement programme is made up of large individual schemes which upgrade the SRN. They range from junction improvements through to the construction of new bypasses and expressways. These schemes are designed to improve safety, network resilience and journey time reliability whilst facilitating future economic growth.

The capital enhancements programme consists of schemes within our Regional Investment Programme (RIP), Smart Motorways Programme (SMP), Complex Investment Programme (CIP) and our RIS3 pipeline. Embedded efficiency covers schemes that are scheduled to progress to SoW or OfT within RP2. It also covers the costs associated with the delivery of enhancement schemes, such as the smart motorways evidence stocktake.

As discussed earlier in the report, programme changes are anticipated for some capital enhancement schemes if their original OfT date (scheduled for 2024-25) has slipped. In these cases, a resultant adjustment to the efficiency target is necessary and change to the value of reported efficiency against these schemes is required.

8.1.1. Outturn vs. baseline cost (primary evidence)



By March 2024, 21 schemes have reached OfT status, and we are reporting a cumulative efficiency figure of -£29.7 million for the period 2020-24. This is £100 million below our internal year-four efficiency milestone for capital enhancements.

Looking ahead, our internal RP2 milestone is to deliver £307.5 million of efficiency on capital enhancements, revised from the original milestone following the changes to the efficiency target discussed earlier in the report.

Our secondary evidence for capital enhancements, detailed in Appendix A to this report, outlines supporting evidence of efficient initiatives undertaken on capital enhancement schemes.

Cumulatively, 14 schemes have reached SoW status within RP2. Changes to the start dates for the schemes that did not start as planned have all been agreed with DfT (as our client). These are generally schemes impacted by planning decision delay or legal challenges, both of which are outside of our control.

8.2. Capital renewals

To keep traffic flowing safely we carry out around 2,000 capital renewal schemes each year as well as planned maintenance activity. This ensures that the network remains safe, serviceable, and effectively fulfils its intended purpose.

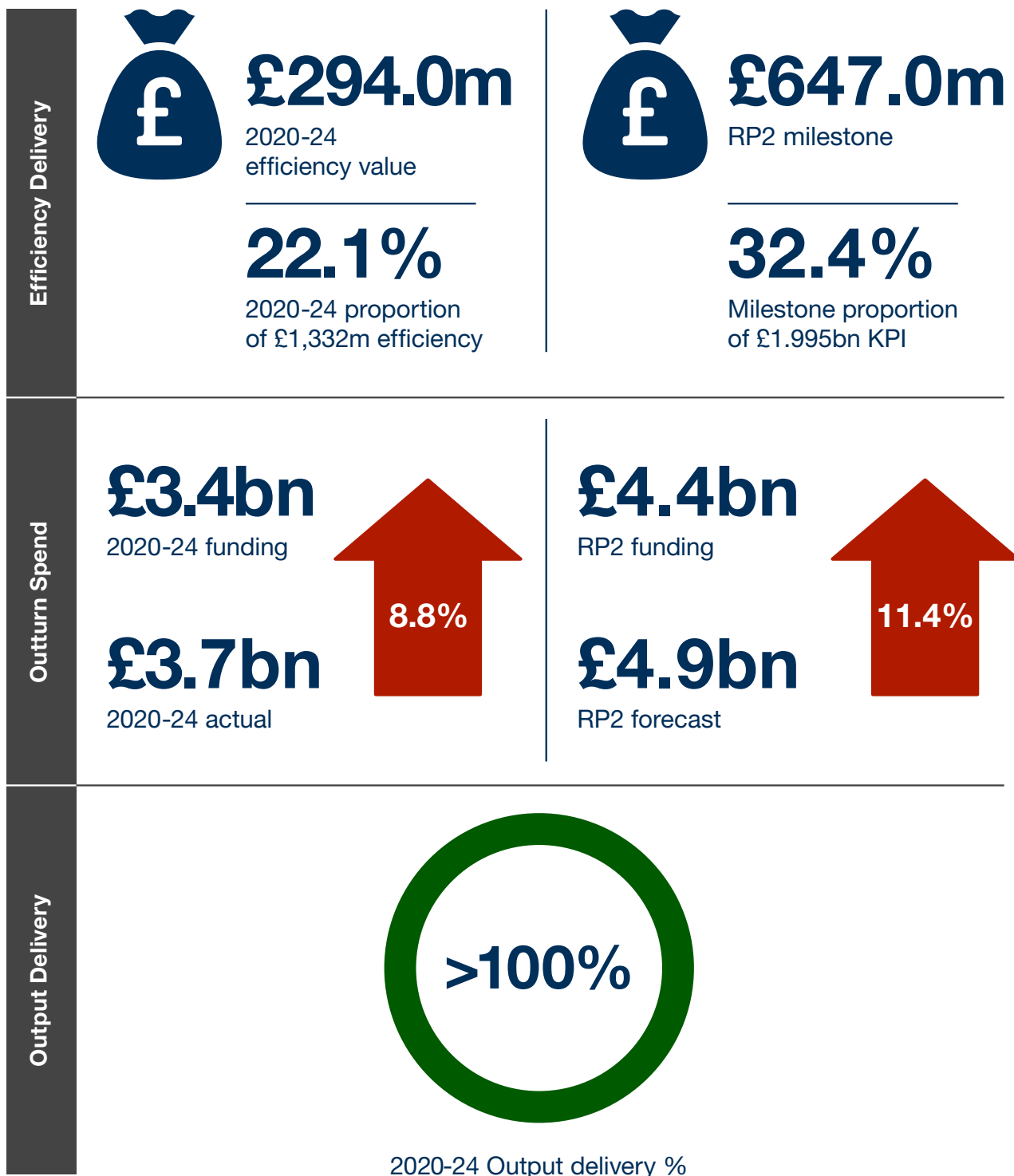
Our key deliverables under capital renewals are road resurfacing, the renewal of safety barriers, and the renewal of significant structures, which includes bridges and viaducts. Additional deliverables, known as 'assurance' deliverables, include road markings, drainage renewals, and kerb renewals. It is these key deliverables which contribute most to ensuring that we keep traffic flowing safely. They also account for most of our renewals spend and are therefore where most of our efficiency is delivered on capital renewals.

We work to deliver strategically planned interventions, using risk-based forecasts, whilst improving procurement, capability, and processes. These actions help to ensure that we meet our commitment to deliver the agreed outputs within budget.

This year we have worked with ORR to agree the efficiency impact of capital renewals output delivery. This covers both the delivery of the agreed quantities of key asset classes against our published *Delivery Plan 2020-2025*, and the depth to which we have laid asphalt pavement (which is at greater cost but will result in better WLC due to improving the asset's longevity). This calculation is important to ensure that we are acknowledged for over-delivery, and 'lose' efficiency for under-delivery once RP2 is completed.

We agreed the methodology for the impact of these during 2023-24, though the assessed impact on efficiency performance will only be deployed in the final year of RP2. Our preliminary forecasts indicate that by then our capital renewals outputs will exceed funded targets and result in a net-positive impact to efficiency of approximately £82 million, although we are forecasting an overspend. This is subject to change in the final year of RP2 once we have finalised our output delivery figures.

8.2.1. Outturn vs. baseline cost (primary evidence)



Between 2020-24, our capital renewals spending was £3.7 billion, compared to the post-efficient funding of £3.4 billion. The efficiency value is built-in to the post-efficient funding, and, despite an overspend against it, due to the adjustments outlined under *Section 7*, we have realised efficiency to £294 million. The adjustments are to the value of £195 million, accounting for unfunded inflation and NR VAT. Much of the RP2 capital renewals efficiency value should be delivered in 2024-25. This is a challenge, but we are confident that we are on track due to the efficiencies identified early in RP2 having a greater effect as we progress

through the period. This includes any final adjustments necessary to account for output and pavement depth over-delivery.

Our secondary evidence for capital renewals, detailed in Appendix B, offers strong supporting evidence for this position covering 100% of primary efficiency.

Outputs are split into key and assurance deliverables. Both types are shown in Fig.14, outlining our actual outputs cumulatively achieved during the period 2020-24.

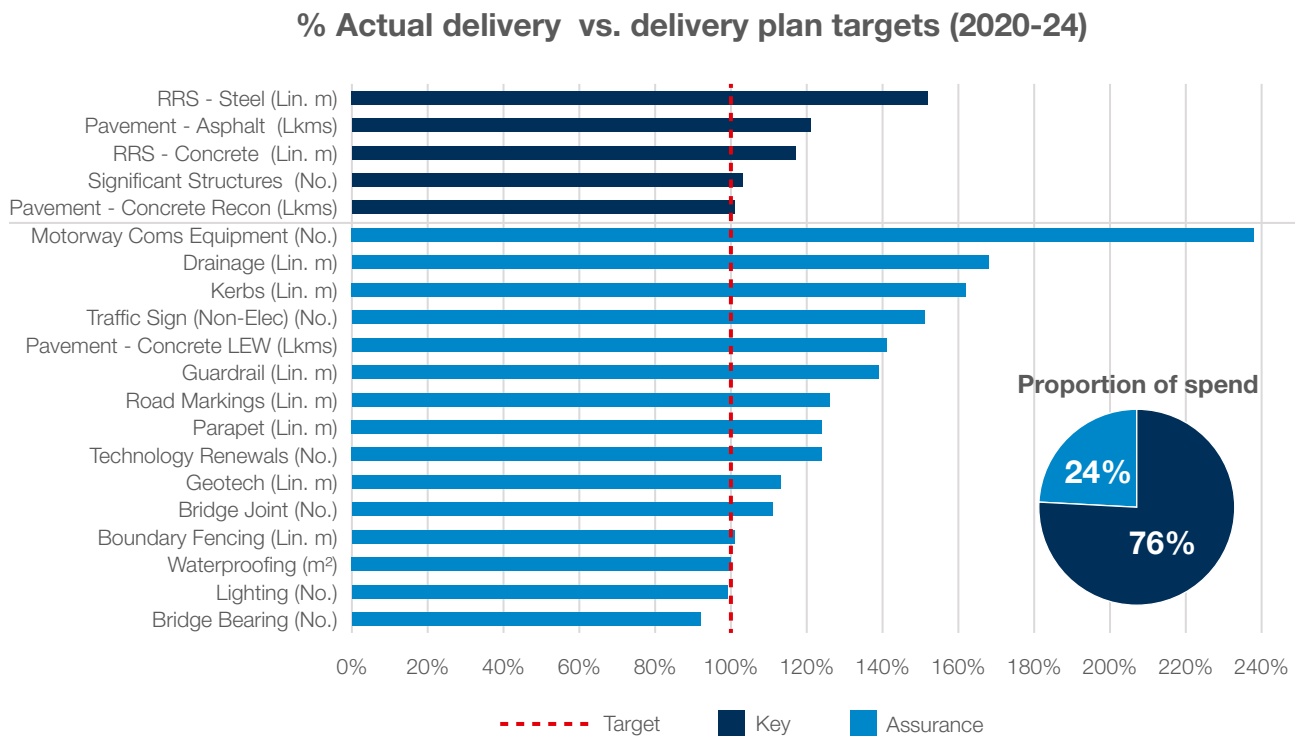


Figure 14: Asset renewal deliverables for 2020-24

For the 2020-24 cumulative period our output delivery against all five key measures is over 100% of our internal target. Key asset classes account for the majority (76%) of our capital renewals spend. Performance against these provides good supporting evidence for our performance against the 2020-24 capital renewals efficiency milestone.

As described earlier we have worked with ORR throughout 2023-24 to develop our calculation methodology for assessing the impact of over- and under- delivery of outputs for the five key asset classes, alongside assessment of our asphalt pavement depth. The impact of both will be included in our year five final assessment of RP2 efficiency performance.

At the end of 2023-24 we are comfortable with the position reached as we are delivering outputs at >100% for most asset classes. However, we recognise the issues, such as continuing inflation pressures, that could impact delivery by the end of RP2.

It must also be noted that alongside our commitment to deliver 125 lane kilometres of full reconstruction concrete road renewals in RP2, we are also aiming to deliver 400 lane kilometres of concrete life-extension works (LEW). This is in addition to our commitment in our published Delivery Plan to deliver full reconstruction works.

Of the assurance asset classes, we have only missed our internal delivery milestone for bridge bearings during 2020-24, achieving 92%. The shortfall on outputs was due to some delays to work on the A27 Adur Viaduct scheme. The remaining bridge bearing outputs will be delivered early in 2024-25.

We believe that the delivery milestone for bridge bearings is low risk to the overall efficiency target due to its low proportion of spend, and because we have exceeded the milestone on the other asset classes. We are monitoring all asset classes and work to deliver against our targets and milestones for these as we enter the final year of RP2.

8.3. Operational, business and maintenance expenditure (opex) and non-roads capital expenditure (capex)

Opex costs are incurred through the delivery of our operations and maintenance activity. They include the cost of our workforce, including the provision of our traffic officers and our control centres who patrol or manage the network effectively. It also includes our information systems that provide customers with traffic data and alternative routes to take, and our weather stations and winter fleet which enable safer journeys in adverse weather conditions.

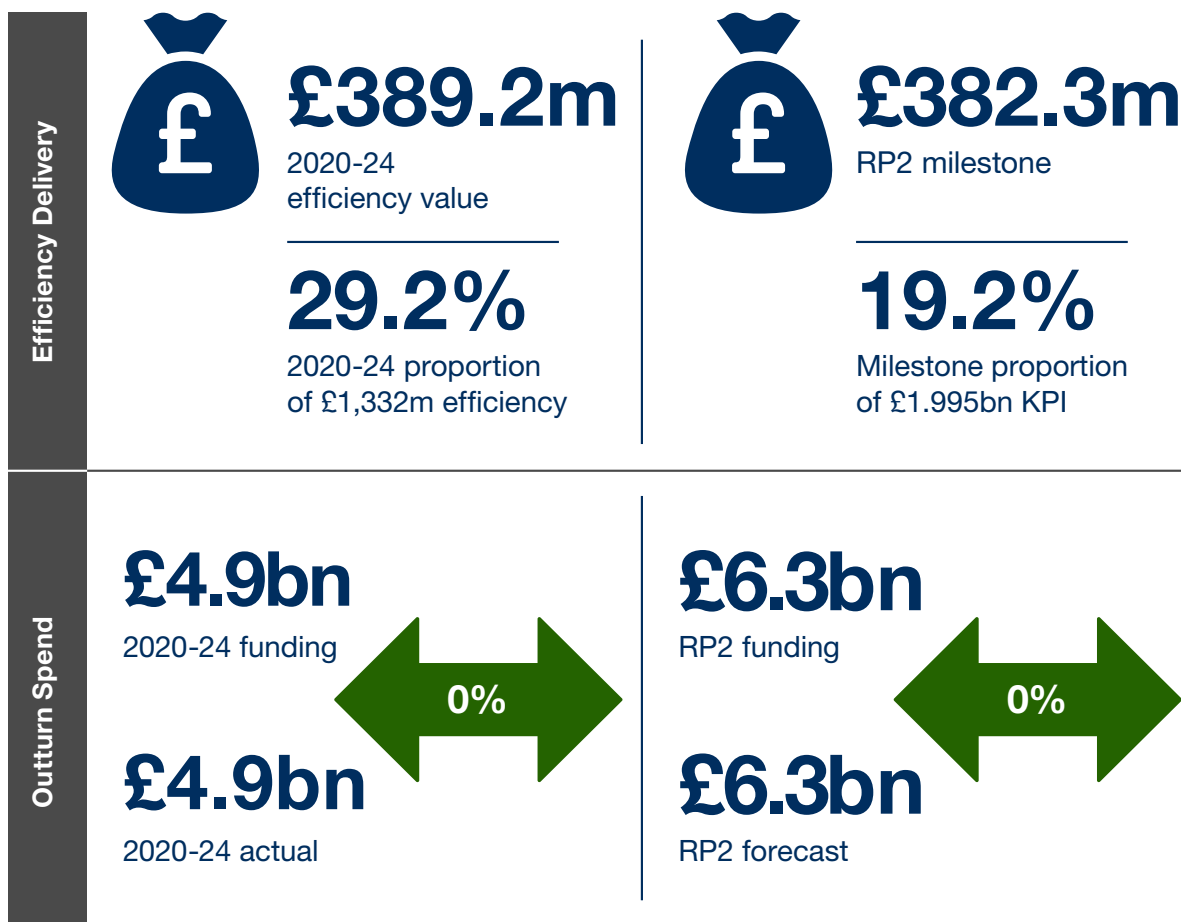
It also includes outsourced routine and non-routine maintenance work to support and maintain our network assets, such as bridges, footpaths, embankments, and safety barriers. All of which help reduce the need for major interventions and potentially extend the life of these assets. Routine maintenance includes safety barrier maintenance, grass cutting and emptying gullies. Non-routine maintenance refers to any unexpected work, such as emergency repairs from spillages or damage because of road traffic collisions.

In addition, existing private finance initiative (PFI) contracts include efficiencies which are built into their funding model underlying the contract. Over RP2 there may be occasional opportunities to revisit these (such as refinancing) and we take full advantage to ensure we maintain value for money – developing an efficiency case as evidence, when we do.

Non-roads capex includes all work of a capital nature not relating directly to extending and repairing the road network, such as spend on our vehicles, offices, and IT.

In RP2 both opex and non-roads capex has post-efficient funding. Our business planning process sets out the high levels of customer service and capabilities we intend to provide. Achieving, developing, and sustaining these business functions within the funding provided is the primary evidence of efficiency.

8.3.1. Operations, maintenance and business expenditure (opex) – outturn vs. baseline cost



In period, we have delivered £389.2 million of opex efficiency and have ensured that we are fully operational whilst delivering our commitments within the agreed post-efficient funding. This is against a backdrop where in 2021-22 we set a challenge to reduce our opex spend by 5% each year over the remaining years of RP2.

Building the efficiency value into our post-efficient funding is realised once we meet the agreed funding. Our secondary evidence for opex, as detailed in Appendix C, offers strong supporting evidence for this position, representing 91% of the opex primary efficiency year 4 milestone.

Opex efficiency benefitted in 2020-21 and 2021-22 due to Covid-19. This resulted in savings through the shadow tolling mechanism on our PFI contracts as traffic volumes were low. However, this saving has diminished from 2022-23 onwards as traffic volumes have returned to pre-pandemic levels.

While DfT agreed to fund some unforeseen opex cost pressures in 2022-23 and 2023-24, the compound effect of inflation is now built into future prices. This means that the impact of high inflation is being felt through RP2. This will affect future PFI payments, putting pressure on other elements of our opex budget.

An example of the outputs achieved within our operations and maintenance activity is illustrated in Fig. 15. We have shown these as an annual average for RP2 as compared to 2019-20 (the final year of RP1). It is not practical to summarise all opex outputs, and not all opex outputs are measurable. However, this helps to illustrate how we have delivered our operational and maintenance commitments. It shows that on key deliverables we have improved our performance within budget and have therefore delivered efficiently.

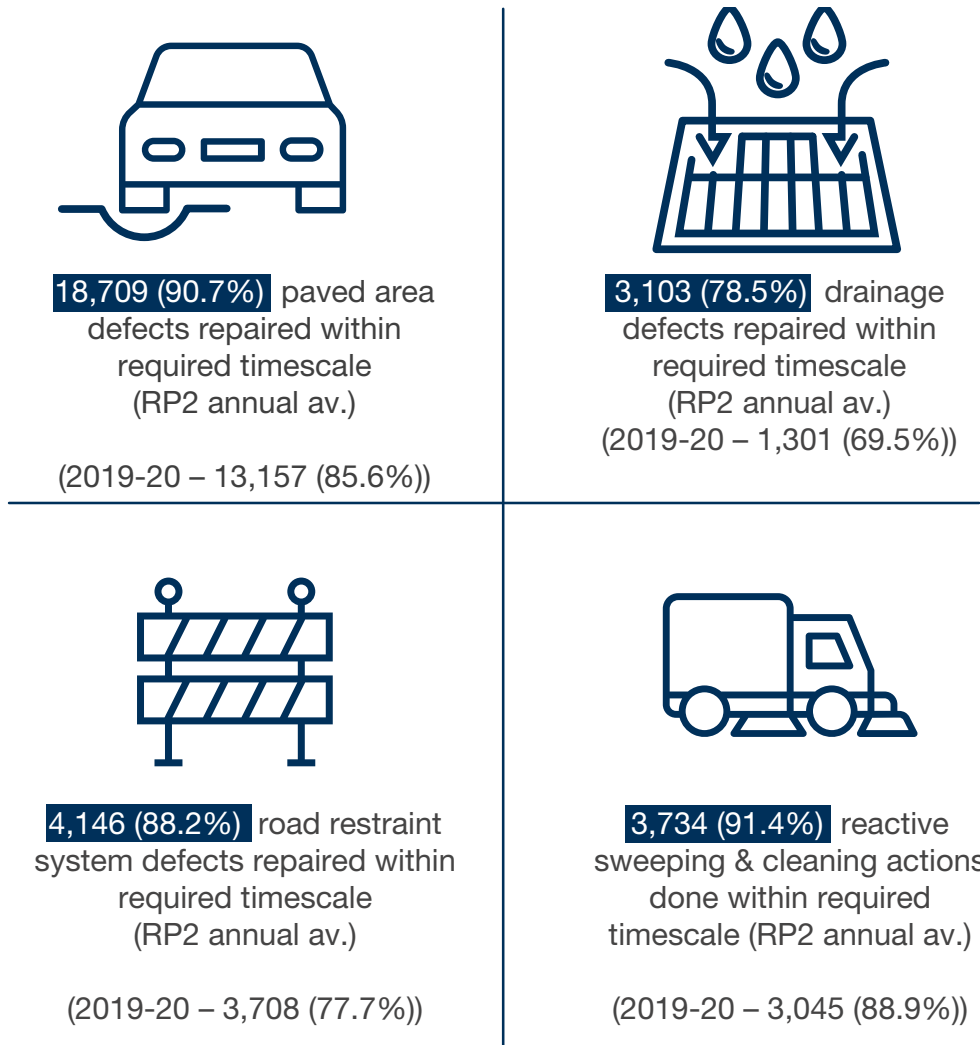
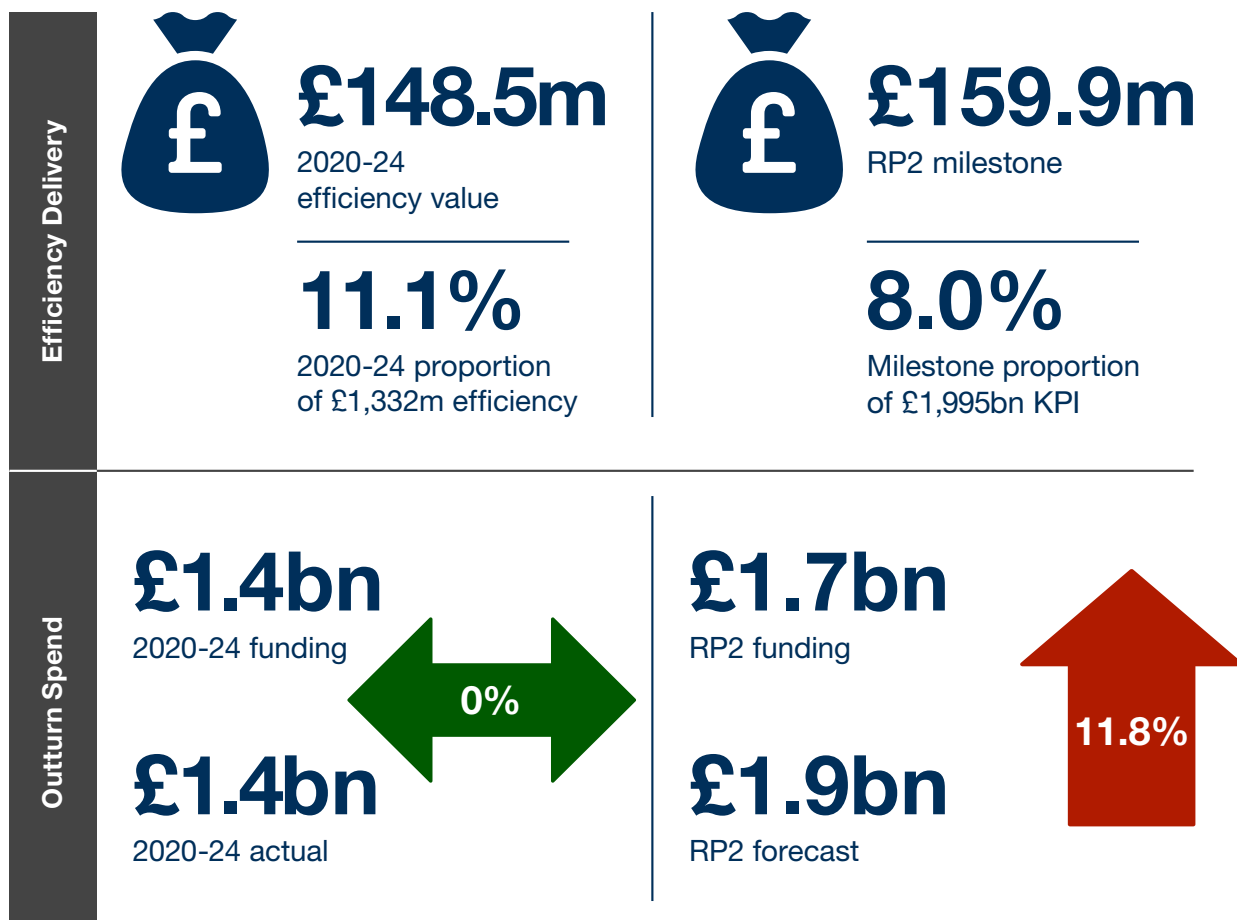


Figure 15: Illustrative opex operations and maintenance outputs

8.3.2. Non-roads capex – outturn vs. baseline cost



Non-roads capex covers capital spend not directly roads related, and ranges from IT systems and building leases, to the capital costs associated with vehicle fleet replacement.

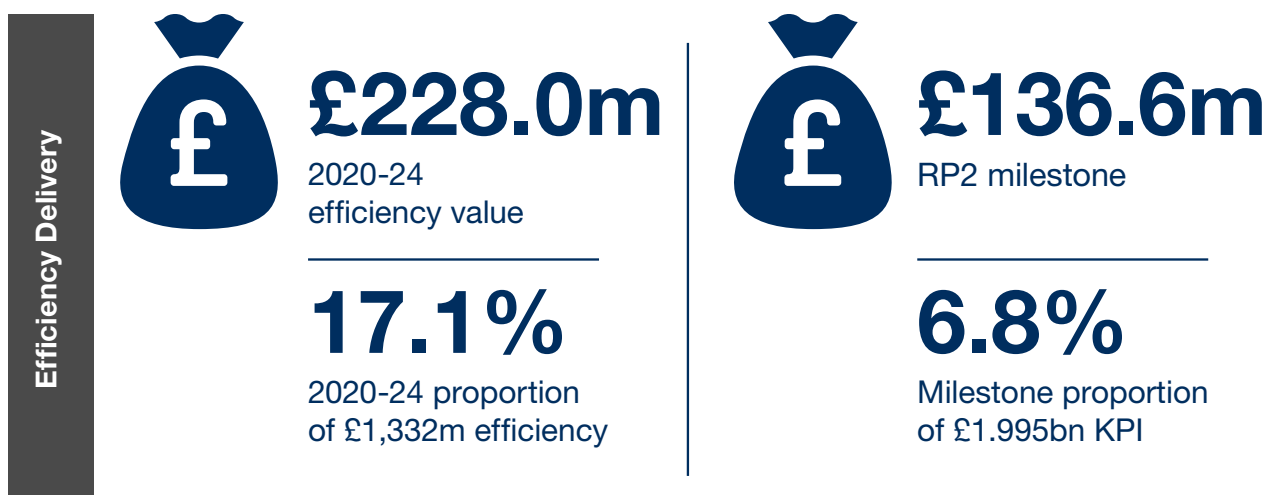
Since 2020, we have delivered £148.5 million of efficiency on non-roads capex (delivering our commitments within the agreed post-efficient funding). In reporting efficiency, we have considered schemes which have been re-programmed to be delivered later than originally anticipated. Our secondary evidence for non-roads capex, as detailed in Appendix D, offers supporting evidence for this position representing 31% of primary efficiency.

9. Measured efficiency

Measured efficiency is evidenced through the business capturing activity within an efficiency register and through developing a case study. It has two categories:

- **RP2 generated efficiency** – this does not reduce the RP2 funding but will generally benefit later road periods or reduce risk within RP2. This type of efficiency applies to areas which did not include an efficiency challenge in the Strategic Business Plan and were defined as pre-efficient costs. In practice this mainly applies to new capital enhancement schemes that were in early stages of development at the start of RP2. It also includes activities financed through our Designated Funds Programme and the RIS3 development programmes. Other RP2 generated efficiencies that have most of their effect outside of the road period may include WLC benefits or maturity improvements. We primarily evidence RP2 generated efficiency through the information captured by the business on an efficiency register. We validate larger value efficiencies (over £1 million) by producing written case studies, which provide further detail on benefits and support effective knowledge sharing.
- **Carryover efficiency** – is identified and secured in RP1 funding but is realised in RP2. Carryover efficiency applies to efficiencies from all RIS1 projects and programmes with expenditure profiles that span the road periods. These have been captured, audited, and reported using the RP1 detailed register approach and assurance process. These efficiencies have already influenced future expenditure but are distinct from RP2 embedded efficiencies and are included in the pre-efficient position. To determine the carryover value of RP1 efficiencies, we split the efficiency claims by road period using earned value principles.

9.1. RP2 generated efficiency



We have delivered £228.0 million of RP2 generated efficiency during 2020-24 and by the end of RP2 we have a forecast efficiency value of £355.8 million.

RP2 generated efficiency primarily applies to six of our larger, more complex capital enhancement schemes (referred to as Tier 1 schemes). These were in development at the start of RP2, with all or most of their delivery in future roads periods. Tier 1 schemes are enhancement schemes with an estimated cost above £500 million and are deemed 'Nationally Significant Infrastructure Projects'. They are subject to staged approvals by the DfT, and we work closely with government in their development and delivery. For information, the six schemes are:

- A303 Amesbury to Berwick Down.
- A417 Missing Link.
- A46 Newark Bypass.
- A66 Northern Trans-Pennine.
- Lower Thames Crossing.
- M60/M62/M66 Simister Island Interchange.

Also included are:

- Our Designated Funds Programme.
- RIS3 development programmes.
- Any new schemes added to RIS2 through the agreed change control process.
- WLC or maturity improvements.

In addition, throughout 2023-24 we have worked with ORR to assess several options for RP2 generated secondary evidence in the shape of activity metrics, like those used for embedded capital enhancement schemes.

During the year we have piloted the introduction of activity metrics for the A417 Air Balloon scheme utilising the differences in the cost estimates released throughout RP2. Working with ORR, good progress has been made to identify the correlation between reductions in cost estimates and the efficiencies assured in our efficiency registers. Once agreed, the methodology will be implemented across multiple measured schemes in 2024-25.

9.1.1. Evidence

We provide evidence to demonstrate achievement of the 2020-24 efficiency value of £228.0 million through case studies for claims over £1 million, and small claims that are less than £1 million. The chart in Fig.16 provides the 2020-24 breakdown of RP2 generated efficiency delivered by programme and value.

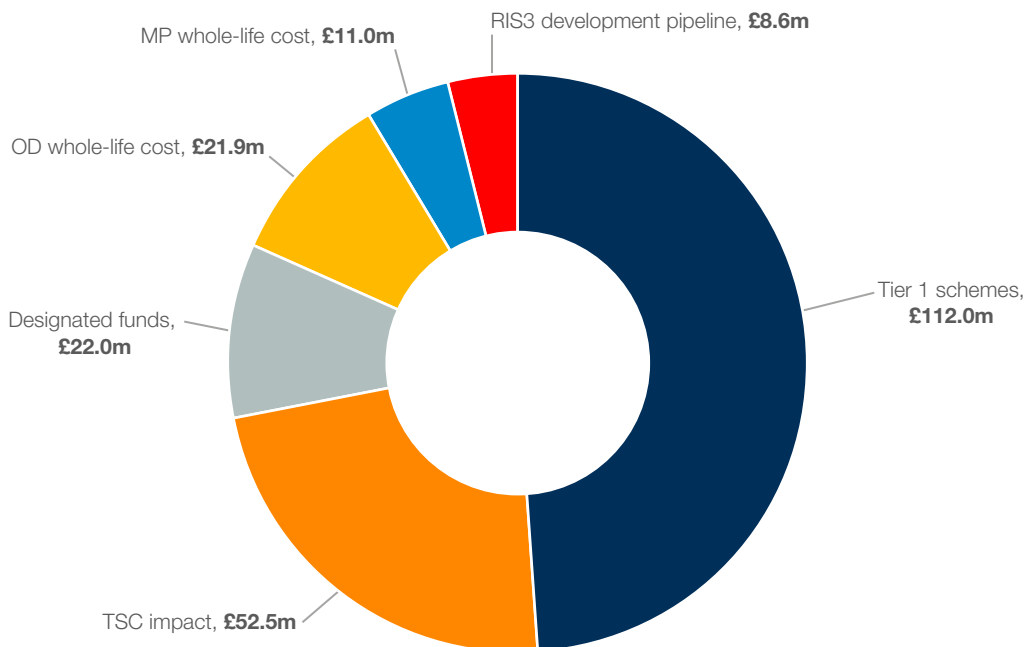


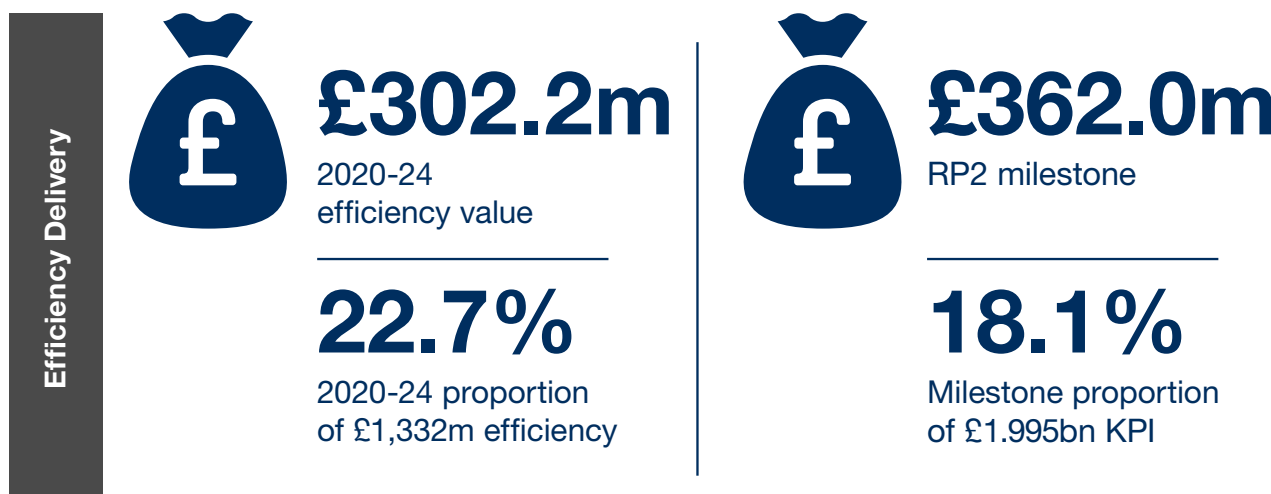
Figure 16: 2020-24 RP2 Generated primary evidence by programme and value

9.1.2. Whole life cost (WLC) savings

We have a License requirement to adopt a WLC approach to managing our assets. This means considering the cost, not just in the current road period, but over the life of the asset to increase the value for money delivered to the taxpayer. We evidence this through case studies shared with ORR and report it as an RP2 generated efficiency.

Of the £228.0 million RP2 generated efficiency, £51.8 million (23%) was delivered against WLC initiatives; £14.7 million through our Designated Funds Programme, £21.9 million through capital renewals, £11.0 million through major projects, and £4.2 million through delivering against our smart motorways stocktake activities. One of our highest value WLC initiatives is the replacement of traditional filament lighting with new LED lighting. This offers a longer lifespan, reduces maintenance, and lowers energy costs over time.

9.2. Carryover efficiency



Carryover efficiency is efficiency created in RP1 that is realised in RP2. A schedule of relevant carryover projects and changes was agreed with ORR at the end of RP1 to be reported in RP2.

The 2020-24 planning assumption was to report £272.2 million of carryover efficiency. We have met this by evidencing and reporting £302.2 million for the period 2020-24 and are on track to deliver the five-year efficiency milestone of £362.0 million.

9.2.1. Evidence

We deliver primary evidence through case studies and efficiency registers which are independently assured by our Internal Audit team and reviewed by ORR. The chart in Fig. 17 provides the 2020-24 breakdown of carryover efficiency delivered by programme or directorate.

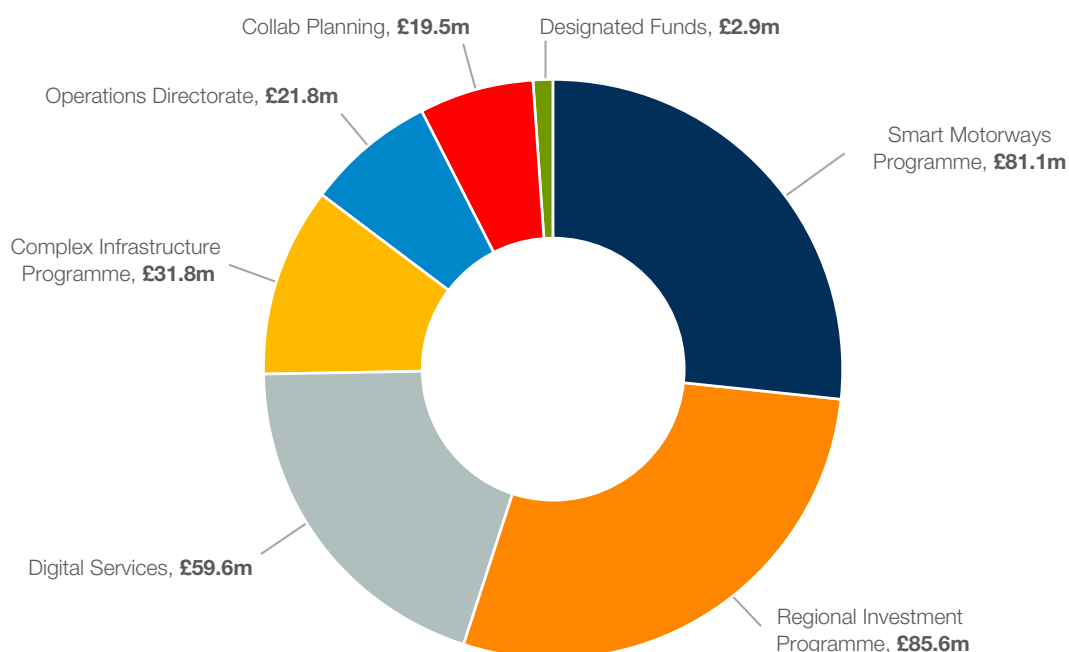


Figure 17: Breakdown of 2020-24 carryover efficiency by programme or directorate

10. Conclusion

The evidence supporting how we have met the milestone for the first four years of RP2 demonstrates that we are making good progress towards the five-year target. This has been achieved through close collaboration with our extended supply chain and maintaining focussed innovation in everything that we do.

Alongside this we have worked closely with ORR:

- Agreeing on the treatment of inflation and creating a credible methodology for determining its impact upon efficiency.
- Improving evidence (activity metrics) to support the primary position, including the introduction of capital enhancement major junctions, and extensive work developing and accessing potential activity metrics for opex, non-roads capex, and RP2 generated efficiencies.
- Agreeing on the methodology for assessing the efficiency impact of over or under delivery of outputs for capital renewals.

We recognise that there is much still to do and are working hard to limit the impact and, where possible, eliminate the current and potential future barriers to efficiency delivery. These include:

- The impact of the change to the KPI target to £1.995 billion.
- Back-end loading the delivery programme, with around 40% of the efficiency target scheduled to be delivered in the final year of RP2.
- The ongoing effect of unfunded headwinds such as inflation, which are now 'baked in' to prices.

We are currently planning for RP3. When the RP3 deliverables and overall funding is agreed, we are confident that we will be able to create a plan to deliver further efficiency into the next roads period.



11. Appendices

Appendix A – Capital enhancements secondary evidence

The secondary evidence for Capital Enhancements is a combination of:

- Case studies detailing major programme level initiatives – over £5 million.
- Metrics that capture the difference between the expected and actual cost of construction activities – known as activity metrics.

Capital enhancements – case studies.

We use efficiency registers to record changes that drive efficiency and create case studies for changes exceeding £5 million. They are subject to a comprehensive assurance process to ensure that case studies are robust and accurate. The efficiency registers are also used to record efficiencies with an RP2 value below £5 million, which are still subject to assurance but where a case study is not required.

The baseline for this evidence is August 2018 on the assumption that initiatives carried out before this date have become business as usual (BAU) in RP2. This applies unless the initiative was either being piloted in RP1 with the intention to roll-out fully in RP2 or was not fully deployed in RP1.

Cumulatively, 21 schemes have opened for traffic to date in RP2. Efficiencies for these schemes have been entered onto our efficiency registers to a value of £87.7 million for the period 2020-24. This is summarised by scheme under Fig. 18.

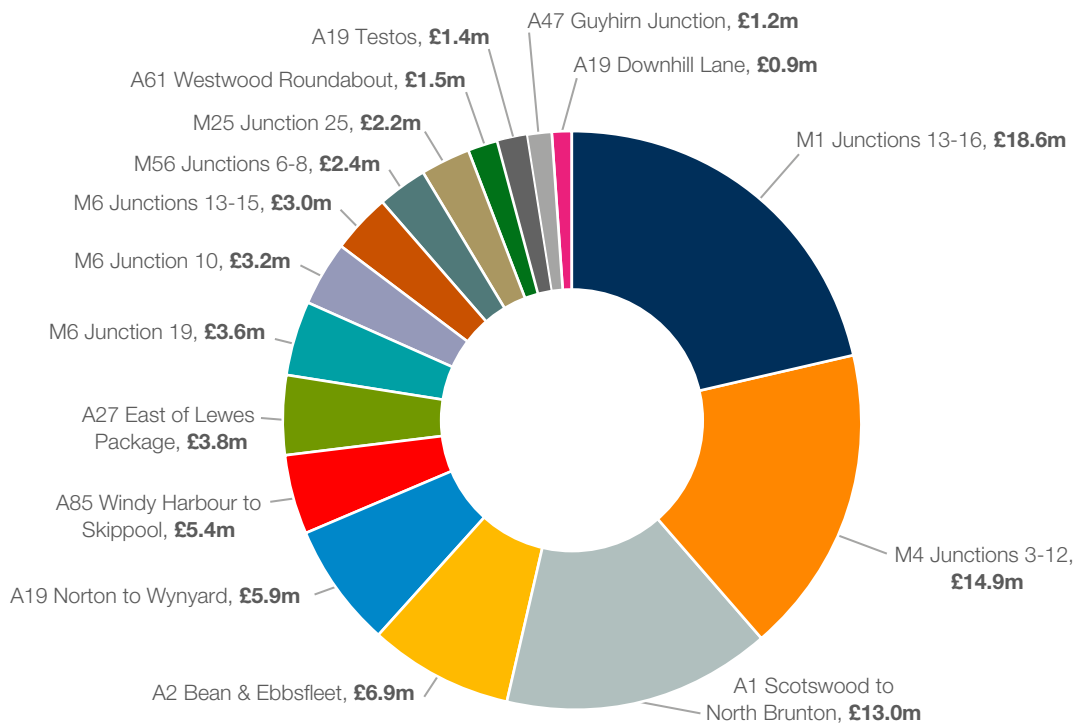


Figure 18: 2020-24 capital enhancements secondary evidence through efficiency registers by scheme

Capital enhancements – activity metrics.

We have developed capital enhancement activity metrics based on the unit cost movement of our key scheme types and shared our approach with ORR. The scheme types covered for 2020-24 are:

- Smart Motorways all-lane running (SMP ALR).
- Bypass and widening.
- Major junctions.

Our approach analyses the unit cost movement from the RP1 agreed pre-efficient baseline to the RP2 pre-efficient baseline. We examined the scope and cost profile of each scheme to assess the impact of scope movement, abnormal cost, inflation, and RP1 efficiency.

SMP ALR and bypass and widening schemes are intended to solve linear capacity issues. To calculate their activity metrics, the difference between the derived RP2 pre-efficient and forecast outturn unit costs was applied to the equivalent number of additional lane kilometres (ALkm) to be delivered in RP2, based on earned value principles. As a result, the output activity metric for these types of schemes is £ per ALKm.

SMP ALR and bypass and widening results are shown in Fig.19:

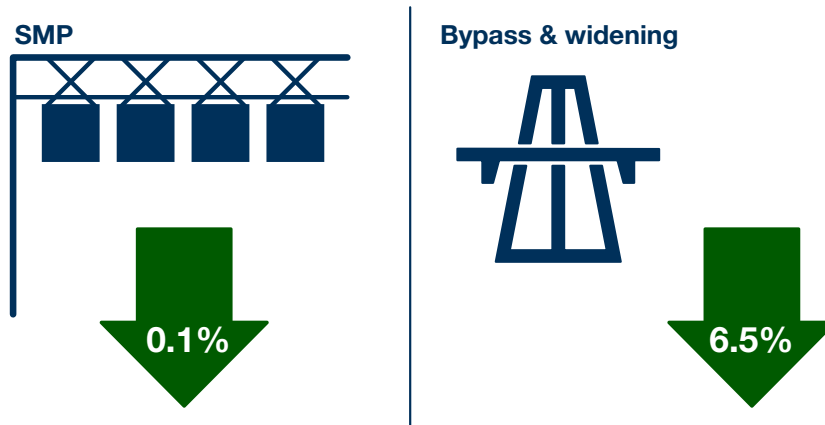


Figure 19: SMP ALR and bypass & widening scheme activity metrics
% change from baseline

We have calculated this as the percentage difference between the baseline cost per ALkm (£m/ALKm) and the RP2 £m/ALkm.

In addition, we have worked with ORR throughout 2023-24 to develop activity metrics for major junction schemes. Here, schemes are required primarily to solve issues at one or more specific 'nodes', or to provide a new junction at a specific point to facilitate access. They are less suited to measuring £ per ALKm and therefore we have applied a different approach, which is similar to the capital renewals activity metrics. We have determined the common activities undertaken on major junction schemes and established an RP2 baseline to which we are able to compare the actual costs for these activities on RP2 schemes.

The results for Year 1-4 major junction activity metrics are shown under Fig.20, offering good support of the primary efficiency.

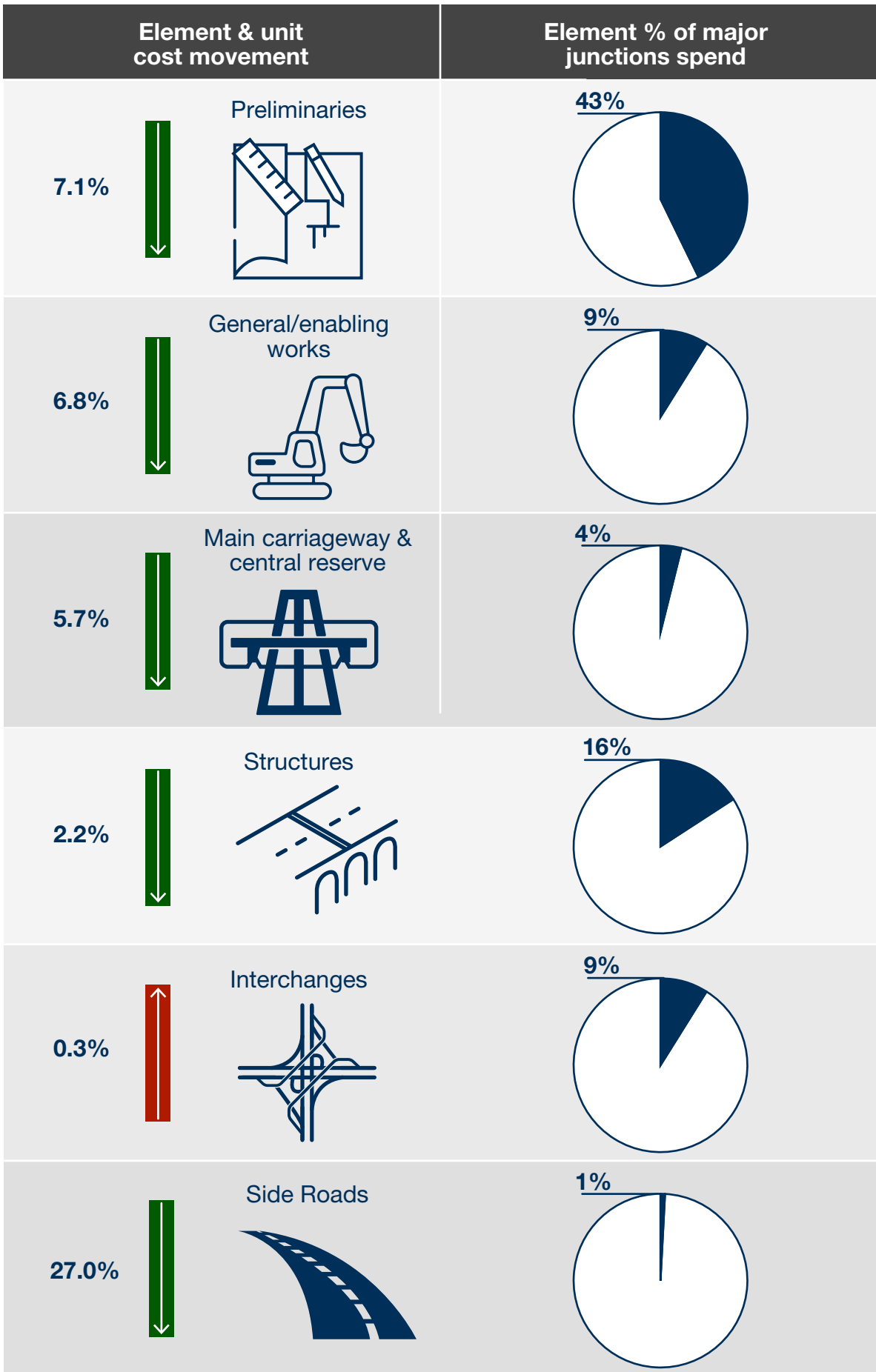


Figure 20: Major junction activity metrics, 2020-24

Appendix B – Capital renewals secondary evidence

Secondary evidence for renewals is split into two elements:

- Case studies for efficiencies exceeding £5 million.
- Activity metrics.

Capital renewals – case studies

Efficiency registers are used to record efficiency at scheme or programme level which are supported by a separate case study if the scheme exceeds £5 million. These case studies are subject to a comprehensive assurance process to ensure that they are robust and accurate.

We apply a baseline date for this evidence as August 2018 on the assumption that initiatives carried out before this date are now business as usual activities in RP2. This applies unless the initiative was either being piloted in RP1 with the intention to fully roll-out in RP2 or was not fully deployed in RP1.

We also use the efficiency registers to record efficiencies with an RP2 efficiency value below £5 million, in which the principle and calculation of the initiative is still subject to assurance but where a case study is not required.

To date (2020-24) there is £355.8 million of efficiency reported through our efficiency registers. We have worked to ensure that the case studies cover a high proportion of reported primary efficiency (>100%), offering strong supporting evidence for the in-year milestone. This is summarised by value, type and title under Fig. 21.

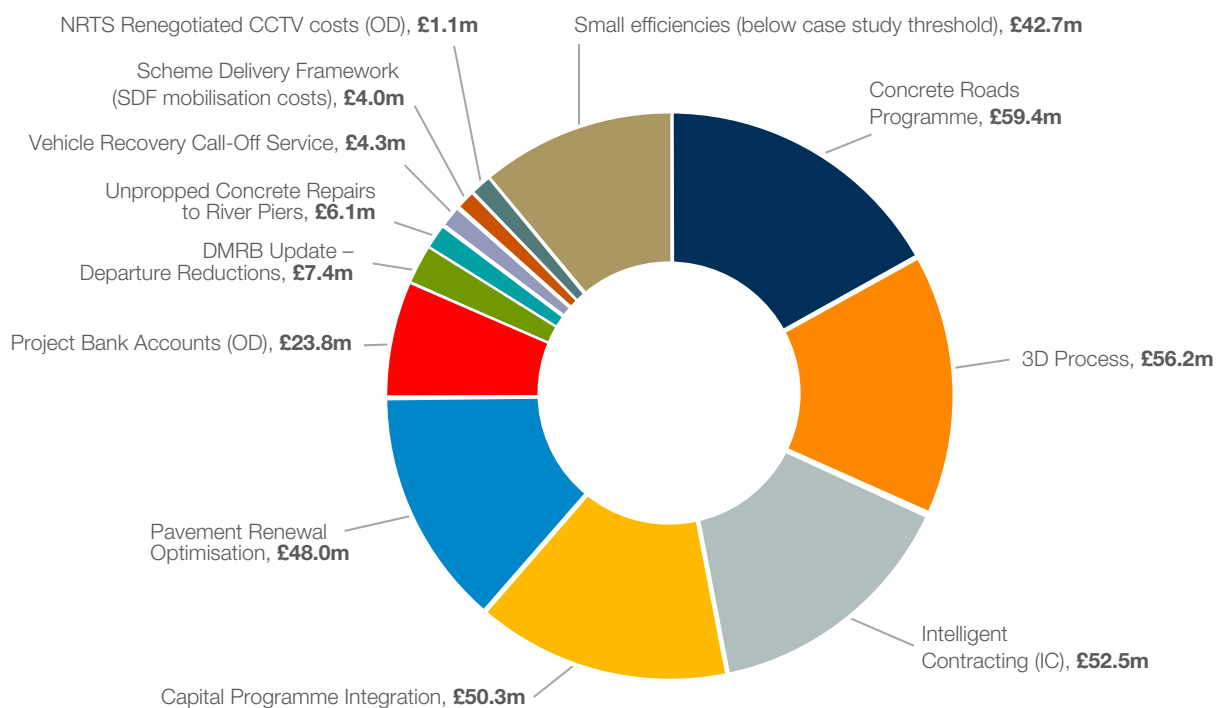


Figure 21: 2020-24 summarisation of capital renewals case studies by title and value

Capital renewals – activity metrics.

We have developed capital renewals activity metrics based on the unit cost movement of our key asset deliverables and have shared our approach with ORR, applying the same methodology used in previous years of RP2.

We have developed these by categorising schemes into the relevant asset class using an analytically assured set of rules. We set a baseline £/unit – for instance, £ per lane km – using the available RP1 data, and then analyse RP2 data to derive the RP2 £/unit. The baseline £/unit and RP2 £/unit are then compared, and this provides an idea of how each asset class is performing. To ensure a like-for-like comparison between the baseline and RP2, the output quantities – or activities – are normalised for both the baseline and RP2.

For the period 2020-24 our activity metrics cover the five key asset classes:

- Asphalt pavement.
- Concrete pavement.
- Steel vehicle restraint system.
- Concrete vehicle restraint system.
- Significant structures (bridge joints and waterproofing).

The activity metrics supports our 2020-24 capital renewals efficiency position. Using the change from baseline and asset class proportion of overall spend provides a good proxy measure of efficiency by showing the effect on the overall capital renewals spend. The breakdown of this in Fig.22 below shows a 18.4% reduction in the unit cost of asphalt pavement schemes (2020-23 – 7.5% decrease), a 10.0% reduction for steel VRS schemes (2020-23 – 6.6% decrease), a 7.2% reduction for concrete VRS schemes (2020-23 – 10.5% decrease), a 0.7% reduction for bridge joint structures schemes (2020-23 – 0.9% decrease), a 22.3% reduction for waterproofing structures schemes (2020-23 – 4.5% decrease), and a 2.4% increase for concrete pavement schemes (2020-23 – 4.4% increase).

Fig.22 also shows the proportion of spend that each asset class constitutes of the overall capital renewals spend. This is presented to further outline how the activity metrics support the capital renewals primary efficiency position.

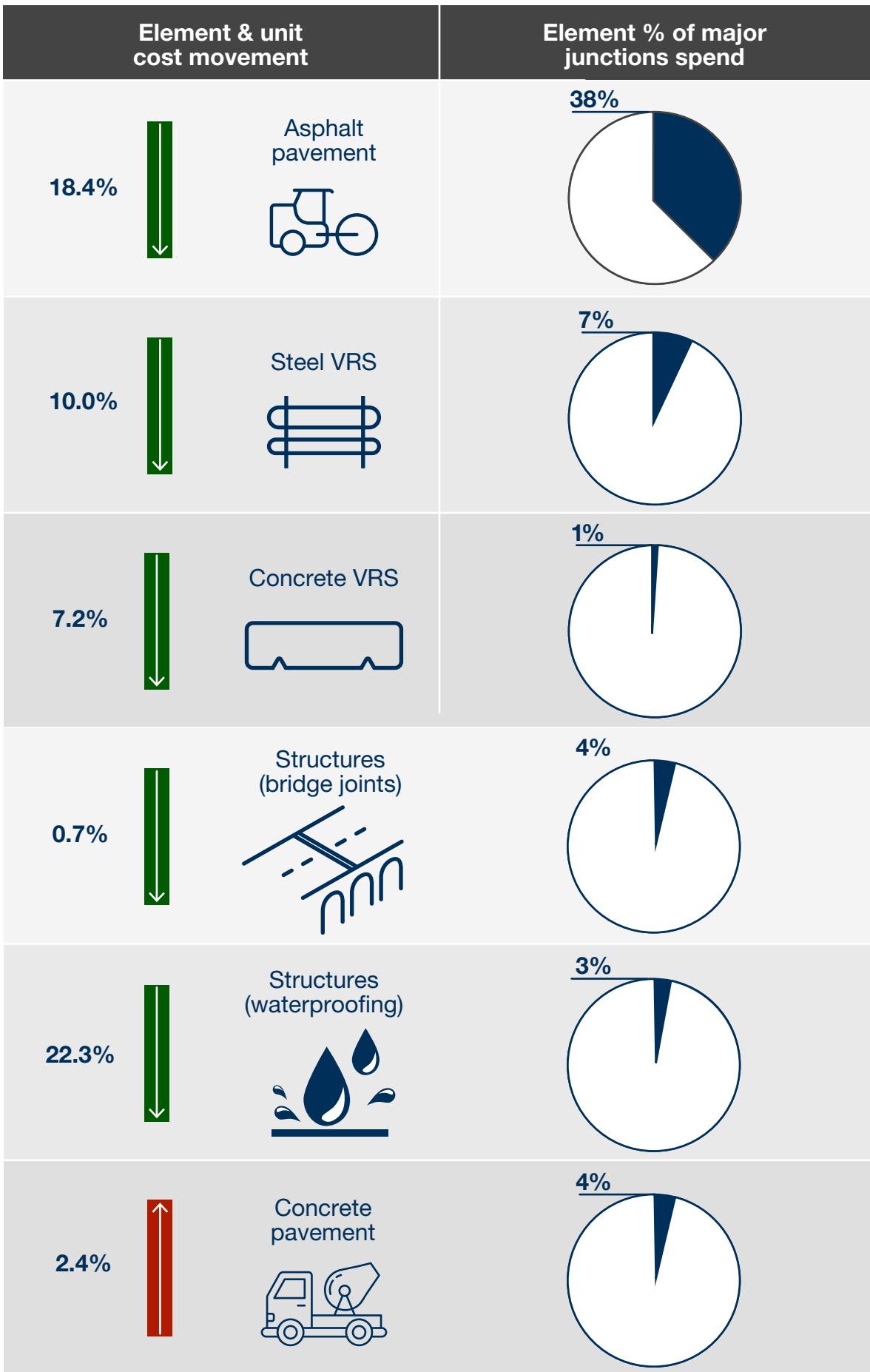


Figure 22: RP2 renewals activity metric results, cumulative position end 2020-24

Appendix C – Operational expenditure (opex) secondary evidence

We provide secondary evidence for opex efficiency through our efficiency registers, with supporting case studies where the RP2 value is higher than £5 million. We supplement these by smaller assured efficiencies with a value below £5 million, which have supporting evidence but do not require an accompanying case study.

During 2020-24, we have reported £233.9 million of efficiency. We have worked to ensure that the value of these cover a high proportion of the target primary efficiency of £257 million (91%), offering strong supporting evidence for the in-year milestone. The value and title of these is detailed in Fig.23.

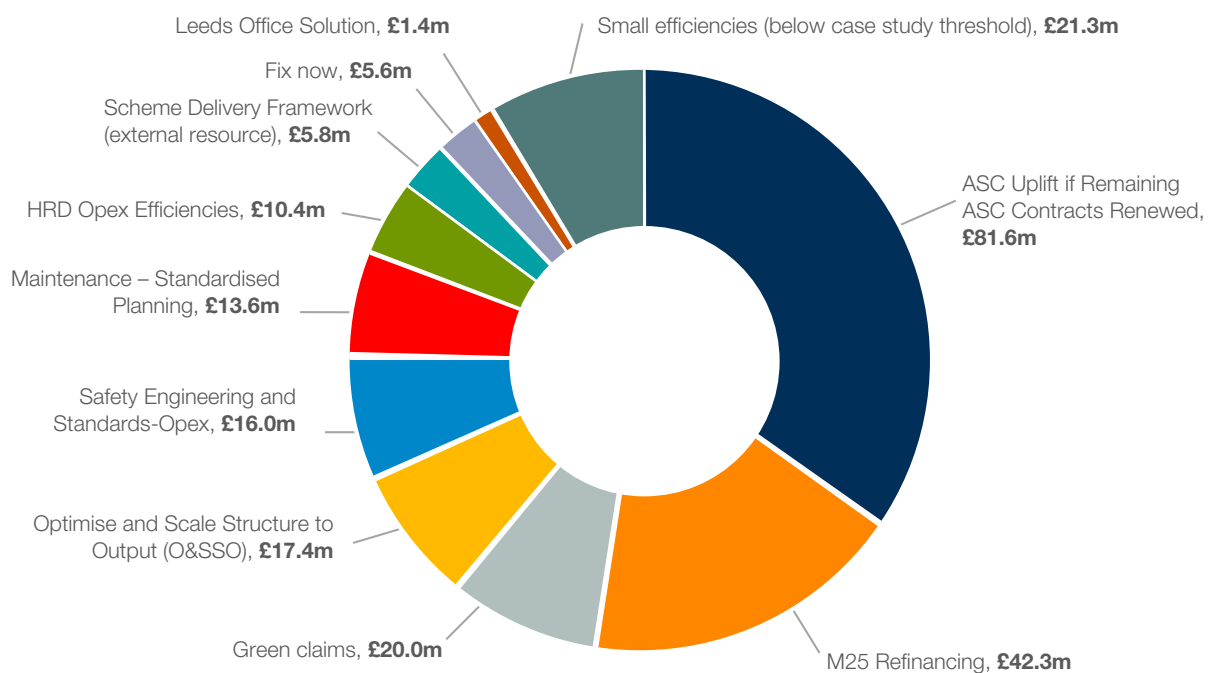


Figure 23: 2020-24 summarisation of opex case studies by title and value

Throughout 2023-24 we have also worked with the ORR to deliver an opex activity metrics approach. We have tested several options, including the correlation of maintenance and repair (M&R) spend with operational staff cost, and assessing the spend on operations per lane km of the SRN.

This work with the ORR, while producing some interesting results, was not able to identify suitable activity metrics for secondary efficiency evidence. It has been too difficult to directly correlate – and to establish causation – to our overall opex efficiency performance using these metrics. We are open to developing potential opex activity metrics but are not anticipating their deployment for RP2 secondary evidence following our assessment of the current potential.

Appendix D – Non-roads capital expenditure (capex) secondary evidence

We provide secondary evidence for non-roads capex efficiency through efficiency registers, with supporting case studies where the RP2 value is higher than £5 million. We supplement these by smaller assured efficiencies with a value below £5 million which have supporting evidence but do not require an accompanying case study.

We have reported £46.1 million of efficiency during 2020-24 within our efficiency registers. We have worked to ensure that the case studies cover a good proportion of reported primary efficiency (31.0%), offering supporting evidence for the in-year milestone. We recognise that this is a reduction in terms of proportion of primary efficiency from last year (36.3%) and will be working to improve this in 2024-25. The value and title of the case studies used as evidence is detailed in Fig.24.

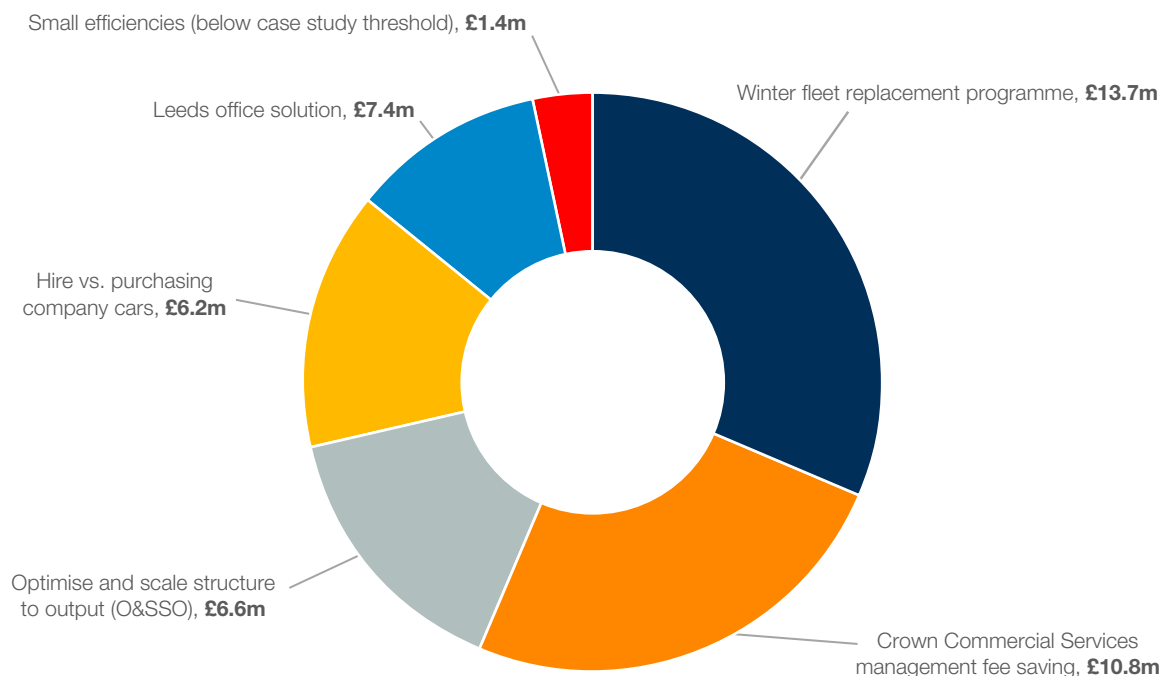


Figure 24: 2020-24 summarisation of non-roads capex case studies by title and value

Throughout 2023-24 we have worked with ORR to deliver a non-roads capex activity metrics approach. We have tested several options, including the spend on corporate support activities in relation to both the overall company spend, and our staff count.

However, while producing some interesting results, the work was not able to identify suitable activity metrics for secondary efficiency evidence. It has been too difficult to directly correlate – and to establish causation – to our overall non-roads capex efficiency performance using these metrics. We are open to developing potential activity metrics for non-roads capex, but we are not anticipating their deployment for secondary evidence following our assessment of the current potential options in RP2.

Appendix E – Capability

We define ‘capability’ as the interaction of resources to deliver our safety, customer, and delivery objectives. We have recognised the need to work collaboratively with our supply chain, increasing our individual and combined capability, to meet the challenges of current and future road periods. The change programmes initiated to date are summarised earlier in the main body of the report under Fig.11 of *Section 2*.

This comprehensive programme (as summarised in Fig 25 below) has been ongoing since the start of RP1 and covers every part of the business.



Figure 25: National Highways Business Improvement Programme initiatives

The activity is coordinated through the National Highways Business Improvement Programme and is designed to cover current and future corporate objectives in every part of the business:

- People development (our most important resource):
 - Externally benchmark to compare functional headcount against other relevant bodies.
 - Reduce reliance on external resource.
 - Upskill our people and our supply chain.
 - Measure and increase levels of engagement.

■ Process development:

- Apply lean techniques to all activities.
- Remove processes which do not add value.
- Increase collaboration and remove silos.

■ Digital Technology and data management:

- Increase commercial intelligence, financial control, and asset stewardship maturity.
- Utilise technology innovation in everything we do.
- Make timely decisions based on robust information.

At the same time, we invest in research and development activities to identify, validate and implement technological innovation which enables us to become more effective. Opportunities are shared with our supply chain and other publicly funded organisations to ensure that benefits to the economy are maximised.



Appendix F – Glossary of terms

Carryover	Efficiency which has been identified and secured in RP1, but is also realised in RP2.
Central Risk Reserve (CRR)	A contingency within our funding for unexpected risks.
Change Control	A formal process where significant funding impacts, and any resultant effect on efficiency, are agreed with DfT following advice from ORR.
Designated Funds (Des Funds)	During the first road period, the government created a series of designated funds, to address a range of issues over and above the traditional focus of road investment, including: growth and housing, innovation, environment, air quality, and cycling, safety and integration.
Efficiency and Inflation Monitoring Manual (EIMM)	Document that sets out the approach National Highways uses to define, demonstrate and provide evidence of its delivery of efficiency in RP2. It also sets out how the comparison between forecast (assumed) inflation and actual inflation will be evaluated during the RP.
Efficiency Register	This is a standard document that captures efficiencies, as well as associated reporting information, value, evidence and approval information. Each entry in the register is supported by a justification as to the reason why the entry is considered to be an efficiency claim.
Embedded efficiency	Efficiency that reduces the funding required at project level and is already built into the post-efficient business plan. Applies to projects and programmes of work that had a defined scope and schedule when the SBP was drafted, or outputs against which efficiency can be measured and against which post-efficient cost baselines have been set.
Lever	Repeatable efficiency initiatives that can be utilised across multiple schemes and programmes of work.
License	Sets out the Secretary of State's aims, objectives and conditions for National Highways.
Measured efficiency	Efficiency that is split into two types, RP2 Generated and Carryover. Measured efficiency will not reduce the funding for RP2 but will, in general, benefit later road periods or reduce risk within RP2. This includes whole life cost efficiency cases.
Nationally Significant Infrastructure Project	Major infrastructure projects which require a type of consent known as 'development consent' under procedures governed by the Planning Act 2008.

Open for Traffic (OfT)	The date at which a scheme has completed and opened to receive traffic.
Post-efficient	Where we challenged historic costs and delivery approaches and then built efficiency expectations into the SBP; further detail on this can be found in the EIMM.
Pre-efficient	Costs prior to implementing the principle of post-efficient costs.
Primary evidence	For embedded efficiency, this is the delivery of the output or outcomes for the funding provided. For measured evidence, this is the use of efficiency registers, case studies and efficiency guides for demonstrating efficiency.
Regional Delivery Partnerships (RDP)	An initiative to incentivise suppliers to improve safety and deliver increased value. This approach contains incentives for results including: shorter and more accurate roadworks; more efficient, local buying; innovation; and increased environmental benefits.
Renewals Risk Reserve (RRR)	A contingency within our funding for unexpected risks.
Road Investment Strategy (RIS)	Government's long-term strategy for the strategic road network.
RP2 Generated	Efficiency that does not reduce the funding required for RP2, but will, in general, benefit later road periods or reduce risk within RP2. This type of efficiency will apply to the areas of the plan which did not include an efficiency challenge in the SBP and were therefore left as pre-efficient costs.
Secondary evidence	Supplementary evidence used to support primary evidence, which is provided through efficiency registers, case studies, and activity metrics.
Smart Motorways Project (SMP)	Motorways that use technology to manage the flow of traffic, controlled from National Highways control centres. They monitor traffic and set variable speed limits and signs to help keep the traffic flowing safely and freely.
Start of Works (SoW)	The date at which construction formally starts on a scheme.
Strategic Business Plan (SBP)	National Highways response to government's second Road Investment Strategy (RIS2). It presents the balancing between maintaining and operating the SRN safely, and providing new capacity where it is needed.
Strategic Road Network (SRN)	The network of roads managed by National Highways, comprising motorways and some A-roads.



If you need help accessing this or any other National Highways information, please call **0300 123 5000** and we will help you.

© Crown copyright 2024.

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence:

visit www.nationalarchives.gov.uk/doc/open-government-licence/

write to the **Information Policy Team, The National Archives, Kew, London TW9 4DU**, or email psi@nationalarchives.gsi.gov.uk.

Mapping (where present): © Crown copyright and database rights 2020 OS 100030649. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.

This document is also available on our website at www.nationalhighways.co.uk

For an accessible version of this publication please call **0300 123 5000** and we will help you.

If you have any enquiries about this publication email info@nationalhighways.co.uk or call **0300 123 5000***. Please quote the National Highways publications code **PR85/21**.

National Highways creative job number BED21 0056

*Calls to 03 numbers cost no more than a national rate call to an 01 or 02 number and must count towards any inclusive minutes in the same way as 01 and 02 calls.

These rules apply to calls from any type of line including mobile, BT, other fixed line or payphone. Calls may be recorded or monitored.

Printed on paper from well-managed forests and other controlled sources when issued directly by National Highways.

Registered office Bridge House, 1 Walnut Tree Close, Guildford GU1 4LZ

National Highways Company Limited registered in England and Wales number 09346363