Review of National Highways Benefits Management Maturity

In partnership with

AKERL●F

ORR

national highways

Review of National Highways Benefits Management Maturity

COSTAIN **AKERLOF**

Disclaimer

Contents

Figures & Tables

Executive summary

Effective benefits management unlocks the delivery of benefits, ensuring that the work undertaken by an organisation contributes to its objectives. In National Highways, benefits management is largely centred on the Major Projects portfolio, but there is ambition to develop this across the full range of project types, and this was expressed in a 2020 Benefits Strategy.

This report, jointly funded by the Office of Rail and Road and National Highways, considers the current state of benefits management in National Highways, including capital infrastructure projects of different scales, as well as internal transformation and services. The joint Costain-Akerlof research team have reviewed academic and professional literature to identify best practice in benefits management, developed a maturity assessment matrix which reflects this best practice, and engaged with teams across National Highways to provide a baseline assessment of the maturity of benefits management across the organisation. Engagement consisted of focus sessions, surveys, and reviews of project documentation, strategy and guidance.

This review found that staff at National Highways understand the importance of benefits management. Those engaged were consistently able articulate key benefits and identify the link between benefits and the National Highways corporate strategy and KPIs.

As expected, there are well-established benefits processes for Major Projects. The Benefits Management Manual, which sets out the requirements for the organisation with a focus on Major Projects, has adequate detail and is consistently followed at a major project level. Those engaged repeatedly cited that they were working to improve lessons learned, with more integrated working between benefits, evaluation and project teams to enable this.

Outside of Major Projects, the review team found consistent ambition to implement benefits management processes to ensure that benefits are realised. However, this is held back by limited awareness of the policy, process and training that exists to support benefits management across the organisation. There is currently no mandated benefits training for those with benefits as part of their role; benefits are not consistently integrated into governance templates or reporting cycles; and in some areas of the business, there is no clear ownership of benefits associated with projects or programmes.

Nonetheless, there are pockets of good practice across the organisation, which reflects the ambition of NH staff to carry out benefits management more comprehensively. This report identifies that good practice and makes recommendations for how National Highways could build on it to put in place benefits management processes across the organisation which are proportionate and suitable for the wide range of different types and scales of project delivered by the organisation.

Summary of recommendations

R1: Develop a Benefits Library clearly linked to corporate strategy and KPIs, which provides a repository for consistent metrics to quantify benefits.

R2: Focus on quality over quantity of benefits for smaller projects; 3 – 5 measurable benefits for each project linked to NH strategic aims or KPIs would add value.

R3: Responsibility for overseeing benefits management processes, and for the realisation of benefits, should be set out in project/programme RACIs

R4: Integrate benefits management processes into existing governance structures, meetings and templates, rather than overlaying new processes, ensuring senior oversight of benefits management. This will make clearer the link between investment decisions, outcomes and benefits.

R5: Improve access and signposting to existing training and guidance.

R6: Ensure proportionate guidance and templates exist for all teams.

R7: To increase the organisation-wide maturity of benefits management, supporting benefits roles could be created for key directorates, building capability and capacity.

R8: A central cross-directorate function could support in setting organisational expectations, providing internal support, sharing best practice and driving the consistency of data collection.

R9: Enable continuous improvement through lessons learned, knowledge banks, and the integration of developing practices in e.g. Social Value.

R10: Develop a policy for the assessment of legacy benefits after project completion.

1. Background to the report

1.1 This report has been commissioned by the Office of Rail and Road and National Highways to review, assess and report on the benefits management and realisation undertaken by National Highways across its different programmes. National Highways is the Government agency with responsibility for managing and improving England's motorways and major A roads. It has a very significant infrastructure portfolio to deliver, maintain and operate. The Office of Rail and Road's function in relation to National Highways is to monitor its management of the strategic road network in England to ensure the network is managed to deliver better outcomes for road users and the public.

1.2 Benefits management is defined as the "*processes and information used so that work done contributes to the achievement of the organisation's objectives.*"[1] Over the last decade, increasing focus has been placed on benefits management as a proxy to appraise the value created or return realised from a specific intervention or investment. It is not limited to the realisation of benefits (improvement or positive effect), but also relies on a focus to mitigate or minimise any disbenefits (negative impacts that occur due to an activity). While historically, benefits may have been economically or operationally focused, there is now increasing pressure to consider wider environmental and societal benefits.

1.3 As a field, benefits management is and will remain dynamic. A wide range of best practice and guidance exists which is adaptable to a range of projects, industries and organisations, however, there is no singular, universally applicable methodology. The existing benefits literature and landscape have been reviewed in Section 3. This research found that many organisations are developing and maturing their process and procedures related to benefits management, and that in many cases variation in practice is related to the level of resource allocated to monitor and evaluate benefits. Variations also exist in organisational culture, understanding, process, governance and capacity.

> *"It's important to emphasize that there is no single right way to implement and sustain benefits management. It all depends on the organization's circumstances, culture and mindset of its people and their openness and ability to change."*
> **DiBartolomeo & APMG International**

1.4 In reviewing benefits management practices in National Highways, the research partners sought to consider projects of different sizes, types and subject areas. Projects and programmes from across the following areas were considered under the remit of this report:

- Enhancements
- Designated Funds
- Concrete Roads programme
- Operations, Maintenance and Renewals (OMR)
- The Traffic officer programme
- Asset Delivery transformation
- Common Highways Agency Rijkswaterstaat Model (CHARM) Digital transformation

1.5 This report builds on findings from 2020 report 'Reviewing Highways England's evaluation of its capital investment programme's benefits', commissioned by ORR to review National Highways' "*processes for evaluating and assessing the benefits realised from its capital investment, and how these processes are being implemented, including the publication of the post-opening project evaluation (POPE) reports.*"[2] This report was followed by a 2020 Benefits Strategy.

1.6 In addition to reviewing whether relevant recommendations from the 2020 report and strategy have been implemented and addressed, this report explores programmes and projects beyond the Major Projects portfolio (including internal and service delivery programmes). It appraises the maturity of benefits management across the portfolio, with lenses of proportionality and consistency.

1   BSI, 2023, BS 202002:2023, Applying benefits management on portfolios, programmes and projects-Guide.
2   Hyperion Infrastructure Consultancy Limited et al, 2020

1.7   National Highways have a well-established process for the completion of Benefits Realisation and Evaluation Plans (BREPs) and Post Opening Project Evaluations (POPEs) across its Major Projects portfolio, for example on the Tier 1 Enhancement schemes within the Complex Infrastructure Programme. This is considered a very mature practice in benefits management in the infrastructure sector, with BREPs and POPEs consistently completed to a high standard and POPEs published following project completion. This is in part due to considerable investment in developing benefits management processes in National Highways, including bringing benefits assurance processes in-house in 2017 and developing a Benefits Management Manual in 2018.

1.8   However, the research found that both BREPs and POPEs are resource-intensive to complete. They are not completed on smaller projects as they include elements that would be less relevant and too resource intensive. Every National Highways team engaged during this research project has been working to improve benefits management practices, balancing consistency and transparency with adaptability and proportionality to reflect the range of schemes within the portfolio.

2. Project Methodology

2.1 This report considers National Highways' progress and maturity in benefits management, embedding recommendations to deliver continued improvement in benefits management practices going forward. To do so, the review team first identified best practice in this area; then developed a Maturity Assessment Framework which reflected this best practice and could be used to test maturity across different teams in National Highways. A range of programmes and projects from across NH were chosen to be assessed and a combination of focus sessions, surveys and reviews of internal documentation carried out to produce a qualitative snapshot of the current maturity of benefits management across the organisation. Finally, recommendations were developed which are tailored to the findings of the assessment.

Literature Review

2.2 To summarise up-to-date best practice in benefits management, the review team began with a comprehensive literature review, analysing academic and professional research or guidance relevant to public sector organisations. From 40 academic and industry papers identified, 25 were down selected for in depth review. These papers were most relevant to benefits management practices in the public sector and were analysed in detail to identify consistent themes relating to known best practice in benefits management. Section 5 (Best Practice in Benefits Management) provides an overview of the findings of the literature review and bibliography can be found at Annex B.

2.3 In completing the literature review, a series of keywords or themes were consistently cited as underpinning mature benefits management practice. Each keyword was scored by the number of times it is noted in the literature, which resulted in 19 areas of focus:

- Assurance
- Training
- Templates and access to best practice
- Internal capacity
- Process and policy
- Evaluation and lessons learnt
- Link to organisation strategy or objectives
- Effective stakeholder engagement
- Management of risk, related to benefits decreasing or disbenefits increasing
- Embedded into wider organisation process
- A dynamic approach, with gateway reviews and updates
- Clear vision statement
- Clear roles and responsibilities
- Culture 'openness to learn and change'
- Senior leadership buy-in
- Data and measurement of benefits
- Evidence-based benefits
- Transparent governance
- Consistent internal definition of benefits management

40 best practice papers were identified, including industry standards, academic and grey literature.

The 25 papers most relevant to the public sector were analysed in depth.

The long list of success factors cited as key to a mature benefits process were identified and grouped into themes. These were then checked for alignment with previous recommendations and strategic priorities.

A maturity matrix was created, and scoring criteria were established.

Maturity for each theme was scored by focus session attendees and survey responses for each project and programme.

Findings were synthesised into a single maturity assessment for each project/programme.
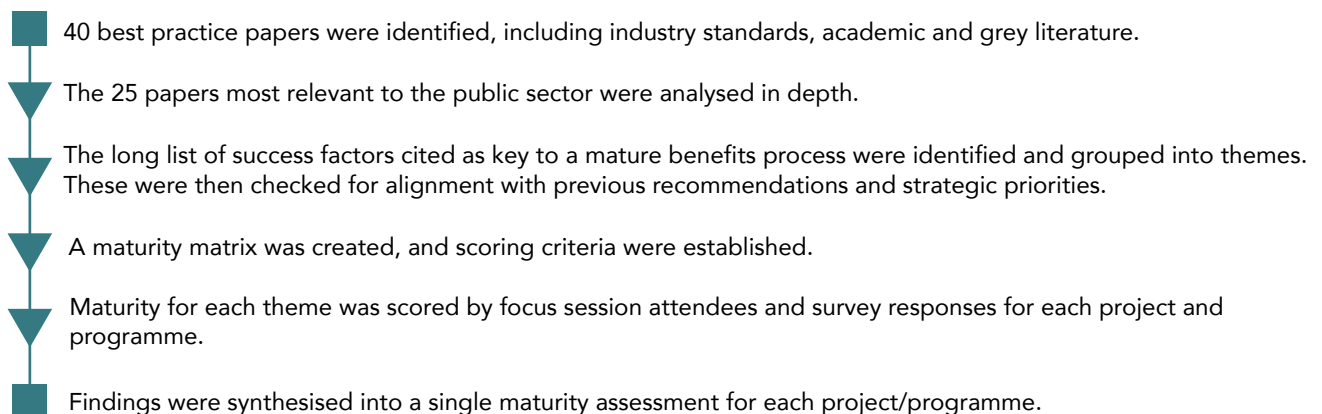
Figure 1: Literature Review Process

Development of a Maturity Assessment Framework

2.4   To create the maturity assessment framework, each keyword was grouped into four core themes, as shown in Table 1.

2.5   As outlined above, the areas of focus were split into core criteria, which all projects could be expected to show to some extent, and enhanced criteria, which could only be expected of large and complex projects with more dedicated resource.

2.6   This framework gave the research team a clear and consistent structure around which to develop the focus sessions and surveys, and against which to assess the internal documents.

2.7   The four key themes were checked against National Highways' 2020 Benefits Strategy to ensure it both reflected best practice and could be used consistently by the organisation to test the progress against their strategy. Of the 19 recommendations made in that Strategy, each could be clearly aligned to an element of the maturity assessment, providing continuity for National Highways in the implementation and monitoring of its strategy application.

	THEME 1 **Process & Policy**	THEME 2 **Governance**	THEME 3 **Capacity & Capability**	THEME 4 **Culture**
Core Focus Areas	**P1** Policies and procedures exist to guide benefits management **P2** Template document (like BRPs) are routinely completed to a consistent standard **P3** Reporting is consistent and structured	**G1** Clear allocation of responsible owners for each benefit. **G2** Internal transparency (how is information shared/ handed over). **G3** Clear understanding of how benefits contributes to the organisational strategy	**CC1** Benefits is well understood and consistently defined. **CC2** Relevant, proportionate and engaging training is available to all those who have benefits within their roles. **CC3** Template materials and best practice examples exist and are accessible to all	**C1** There is a robust process for managing the risk of benefits not being delivered, or disbenefits increasing. **C2** There is a clear, structured and consistent approach to keeping stakeholders informed. C3 We learn lessons from every project and have internal mechanisms to share insights, which drive continuous improvement.
Enhanced Focus Areas	**P4** Benefits are evidence-based and data driven. **P5** Decisions made about the project/ programme are consistently informed by the key benefits.	**G4** Executive sponsorship **G5** Assurance: Internal or external checks and balances	**CC4** There is sufficient resource allocated to identify, realise and evaluate benefits. **CC5** There is informal or formal community of best practice available	**C4** We have a clear vision statement that all stakeholders are aware of and bought into.

Table 1: Maturity Assessment Framework

Sampling Approach

2.8 The delivery of capital projects in National Highways follows well established processes and is led by different teams dependent on the type and scale of project. Enhancements, or Major Projects, are those investments which meet a capital spend threshold or are considered highly impactful on the road network. Other smaller infrastructure projects are delivered through funding streams such as the Designated Funds, or the Renewals programme. Programmes of cyclical and routine maintenance works are also delivered by National Highways to keep the road network running safely and effectively.

2.9 The review team wanted to engage with a representative sample of National Highways directorates, programmes and projects in order to consider the maturity of benefits management across the organisation. In selecting programmes and projects to study in detail considerations included:

- Projects vs programmes
- Project size and value
- Type of delivery
  (new asset/maintenance etc.)
- Responsible teams within NH
- Project type, for example on-carriageway works; active travel; non-carriageway projects such as tree planting
- Project delivery stage
  (to be agreed between NH and ORR)
- Geographical spread

With support from the National Highways team and engagement from ORR, a shortlist of projects was agreed and focus sessions set up with key project representatives. These points of contacts then identified colleagues, who were invited to complete the survey, in essence resulting in a qualitative snowballing approach to sampling.

Assessment of maturity

2.10 The assessment methodology was based on three inputs:

- **Focus sessions, held with members of project and programme teams identified by National Highways' Evaluation Team**. One session was held with each team. These were semi-structured interviews based on the four themes and criteria, which consisted of a qualitative conversation followed by a request to score the relevant project or programme against a Likert Scale of 1 – 4 for each key theme. The scale was designed to align to, while being distinct from other well-established maturity scales for assessing capability:

  1 **Aware:** Individuals are aware that benefits management process exist and are able to articulate the role of benefits management and its key components.

  2 **Structured & Consistent:** Benefits management is well structured, with clear steps, roles and responsibilities. The process is well defined and consistently applied.

  3 **Embedded & Repeatable:** Benefits management is integrated into the organisational culture, processes and practice. Activity is not siloed but engrained into the organisational ways of working.

  4 **Optimised:** Benefits management has been refined and improved, to be delivered efficiently and effectively. It leads to enhanced performance and impact.

- **Surveys with members of the wider project teams identified by the focus session attendees.** These followed a similar line of questions to the semi-structured interviews and also requested scoring on the scale above. For each project or programme the aim was to secure between 3 and 5 survey responses, though this was not possible in all cases.

- **Assessment by the review team of internal documentation provided by the project team.** This included for example template documents, Terms of Reference, benefits maps, and evaluation strategies.

2.11 Section 6 sets out a qualitative summary of the findings of this engagement, and also contains for each project or programme a Radar Chart of the scoring, which is a collation of the focus sessions, survey responses, and assessment by the review team of the relevant documentation.

Limitations

2.12 The use of focus sessions and surveys give us a snapshot in time of benefits practice in different teams across National Highways. This is a dynamic area, which is undergoing lots of change, alongside wider corporate transformation across the organisation. Therefore, the below findings should be considered a snapshot of current practice, rather than a fully representative picture.

2.13 The sample size was small, and if repeated a larger sample would result in more robust and generalisable findings.

2.14 Subjectivity bias likely to exist in the findings as a 'snowball approach' to sampling was taken; i.e. the Evaluation Team identified people for the focus sessions, and those people identified others to be surveyed. This was unavoidable given the scale of the organisation and the need to quickly identify individuals in many different parts of it but future studies, if possible, should aim for a more objective approach to sampling individuals for engagement.

2.15 On initiating the project, the research team was asked to develop a framework structure to assess maturity, which was simple to apply and would be consistently understood by teams with ranging benefits maturity. Based on this, a four-point scale was designed. The benefits of a four-point scale are that it is simple to respond to and reduces respondent fatigue, it also expedites data collection and analysis. The challenge of a four-point scale it that the findings lack granularity and response range. It would be relatively straightforward to develop the maturity assessment to a five- or nine-point scale in the future.

3. Best practice in benefits management

3.1 The below is a summary of the best practice identified in the literature review of academic and professional research.
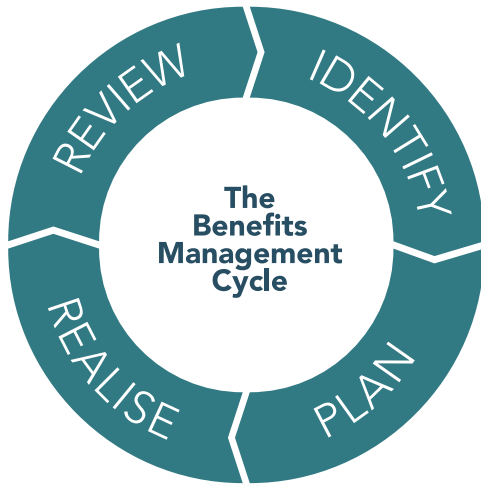

Figure 2: Benefits Management Cycle

The purpose of benefits management

3.2 Benefits should not be measured and monitored simply for the purposes of governance, but to enhance the project design and delivery. BS202002 states that: "*The purpose of realising a benefit is to generate return on the investment of resources. The return on investment can be financial, environmental, societal or any other form of value.*"

3.3 "*The purpose of reviewing realization of a benefit is to learn lessons about what makes realization of each benefit more likely, and to apply those lessons to optimize return on investment, both for the benefit being reviewed, and for other benefits.*"[3]

> "*The most important element of a successful project is that it delivers its intended outcomes. While minimising cost and delivery time are essential goals of project delivery, no project which fails to deliver what is planned of it can ever be considered a success, no matter how cheap or fast.*" **- IPA Assurance of Benefits Realisation in Major Projects 2021**

3.4 This is the reason to undertake benefits identification both at the outset of projects and throughout delivery. When only retrospective, the evaluation of outcomes cannot inform the better delivery of that project.

3.5 When benefits realisation is not understood to be dynamic and optimisable, benefits management can be seen as simply another requirement on already busy people, with little genuine buy in. In these cases, or similarly where there is a lack of trained resource the value of the process will be limited.

3.6 Understanding of the need for benefits management is also assisted by linking project and programme benefits to organisational strategies and KPIs. This allows a portfolio-level understanding of benefits which can motivate people to monitor and measure benefits more effectively, knowing that in doing so they are assisting in the organisation's mission. This fits with wider advice from Axelos's Managing Successful Programmes (MSP).

3.7 Clear and consistent management of benefits also ensures that other project considerations such as cost pressures or stakeholder positions do not erode the value of schemes. This allows for a rounded view of the scheme under consideration. Managing Successful Programmes states that "*given its importance to the programme, it is not surprising that benefits management drives many aspects of programme management including:*

- *Aligning and validating the integrity of the blueprint against the projects, activities and associated organizational changes needed to deliver the new capabilities and benefits*
- *Defining the aggregate of achieved benefits, expected benefits, costs to date and expected cost against the business case; providing a crucial test of the ongoing viability of the programme*
- *Prioritizing benefits to allow the programme to create maximum value under given constraints and make the right trade-off decisions if required*
- *Planning the programme (benefits realization is a major foundation for this aspect).*"[4]

---

3 BSI, 2023, BS 202002:2023, Applying benefits management on portfolios, programmes and projects-Guide, PG 33.
4 Axelos, p20

Review of National Highways Benefits Management Maturity

Realisation of identified benefits is challenging in large organisations

3.8 Managing Successful Programmes notes that transition of benefits between project phases is critical to success, with recommendations that benefits realisation plans include "*Details of any handover and embedding activities, beyond the mere implementation of a deliverable or output, to enhance the process of benefits realization after the capability has been delivered; this part of the benefits realization plan is also referred to as a transition plan [and] Reference to how the benefits realization will be maintained after programme closure*".[5]

3.9 This is likely to be a particular risk in the infrastructure sector, in which responsibility for a scheme is handed from design team, to delivery team (potentially with a complex supply chain attached) and then into operation. In addition, the project lifecycle of major infrastructure, which may be upwards of 10 years in delivery alone, makes clear ownership across phases and regular reviews of benefits particularly important. It should also be recognised that changing strategic priorities or organisational remits can be a feature of working in Government and Arms Length Bodies, and that benefits processes therefore need to be resilient to this change and flexible enough to adapt the content of benefits process and procedure to reflect emerging strategic aims or performance measure.

"We evidence a strong focus on benefits identification across the data set, specifically at the outset (the business case stage seeking project approval) and observe deterioration in focus as the project or programme progresses through the authorization (or assurance) approval gates towards close-out and operations. The results further emphasize the prominence of political interest, leadership buy-in, a benefits-driven culture and a transparent benefits reporting mechanism in the implementation of 'effective' Benefits Management frameworks." – **Williams 2020**

Benefits management should be integrated with programme and project management at all stages

3.10 DiBartolomeo and APMG find that benefits management processes are most successful when integrated with, or at least aligned to, project and programme management processes and standard reporting[6]. For example, benefits handovers should be aligned with Project Controls Framework stages to enable benefits to inform project decisions: "*benefits management is needed before making a decision to explore an opportunity, and benefits management informs decisions during project delivery*".[7]

"By combining project management maturity models with benefits management approaches, we expect to reinforce support for the drive to use organisational projects to fulfil organisations' strategic plans that will enhance the control techniques of project management, whilst recognising the need for organisational change and for ensuring the interpersonal skills necessary to orchestrate the successful completion of a project." - **IPA Guide for Effective Benefits Management in Major Projects**

3.11 The IPA notes that "*benefits management practices can be applied to a programme as whole, to a tranche within a programme and to a discrete project within a programme*".[8] The process of benefits management – identification, planning, realisation, review – can be applied at any scheme level. Many organisations have benefits registers for individual projects but do not necessarily take a top down organisational portfolio approach and therefore can be misaligned with their strategic objectives. Others have benefits attached to high-level strategies, which are not consistently dovetailed into their individual projects and programmes.

5 Axelos, p238
6 Dibartolomeo & APMG International, p14
7 Minney 2023
8 Infrastructure and Projects Authority, p10

3.12 Having a benefits strategy is cited as reducing the risk of benefits becoming misaligned: "*where the responsibilities for programme benefits are widely spread across the organization(s) and the 'how to' of realization is complex, a clear and robust benefits management strategy is essential: without such a strategy people may be measuring the same benefit with different measures and reporting at different frequencies*".[9]

Benefits management is not one size fits all

3.13 Finally, a key lesson from the literature review is that benefits management processes need to reflect the culture, resources and strategic priorities of the organisation, or part of the organisation they relate to. Benefits management processes which are too onerous for the scale of the intervention may not be completed to a high standard or may be completed inconsistently. Process and procedure that is effective in very large infrastructure projects, will need to be tailored for application on smaller projects, or for operational investments.

3.14 APMG suggests in some cases that a portfolio-led approach may be beneficial. "*To enable consistent benefits management practices, the organization should set the benefits management strategy at the portfolio level to detail how and by whom benefits will be managed […] Where individual capability and organizational maturity is low particularly regarding benefits realization, then the above approach is better than having each programme or project develop its own benefits management strategy*".[10] A portfolio-led approach is also advocated for in the recent BSI Benefits Standard: BS202002:2023.

9 Axelos, p84
10 Dibartolomeo & APMG International, p36

Review of National Highways Benefits Management Maturity

4. The Maturity Assessment Framework

	THEME 1 **Process & Policy**	THEME 2 **Governance**	THEME 3 **Capacity & Capability**	THEME 4 **Culture**
Core Focus Areas (for projects/ programmes of all sizes)	**P1** Policies and procedures exist to guide benefits management. **P2** Template document (like BRPs) are routinely completed to a consistent standard. **P3** Reporting is consistent and structured.	**G1** Clear allocation of responsible owners for each benefit. **G2** Internal transparency (how is information shared/ handed over). **G3** Clear understanding of how benefits contributes to the organisational strategy.	**CC1** Benefits is well understood and consistently defined. **CC2** Relevant, proportionate and engaging training is available to all those who have benefits within their roles. **CC3** Template materials and best practice examples exist and are accessible to all.	**C1** There is a robust process for managing the risk of benefits not being delivered, or disbenefits increasing. **C2** There is a clear, structured and consistent approach to keeping stakeholders informed. **C3** We learn lessons from every project and have internal mechanisms to share insights, which drive continuous improvement.
Enhanced Focus Areas (for larger projects/ programmes only)	**P4** Benefits are evidence-based and data driven. **P5** Decisions made about the project/ programme are consistently informed by the key benefits.	**G4** Executive sponsorship. **G5** Assurance: Internal or external checks and balances	**CC4** There is sufficient resource allocated to identify, realise and evaluate benefits. **CC5** There is informal or formal community of best practice available.	**C4** We have a clear vision statement that all stakeholders are aware of and bought into.

Table 2: Maturity Assessment Framework

Theme 1 - Process & Policy

4.1   Process & Policy refers to the policies and procedures in place to structure benefits management in an organisation. Best practice for all projects would be clear and accessible process and procedures, with templated documents completed, and a consistent reporting structure for benefits. More mature organisations, or on larger projects, would also have methods to ensure that benefits are evidence based and driven by data, and that this evidence base informs project decision making throughout.

Theme 2 - Governance

4.2   Governance is a key enabler to good benefits management practice. In established organisations, this would involve clear ownership of benefits by individuals, with handovers between project stages or when teams change, and a relationship between project benefits and organisational strategies or aims. This is similar to best practice for risk management as defined by APMG. Where suitable, executive sponsorship of benefits and assurance (internal or external) strengthen governance best practice.

Theme 3 - Capacity & Capability

4.3   Benefits policies and governance require trained individuals with sufficient time to identify, monitor and evaluate benefits in order to gain the most value from the process. For teams to deliver effective benefits management across all projects, consistent definitions of benefits, access to best practice templates and guidance, and relevant and proportionate training is required. In some cases, this may be very light-touch, such as a short presentation, while more significant projects may get value from formal training. Formal or informal communities of practice are also a feature of mature benefits management on major projects.

Theme 4 - Culture

4.4   Finally, culture is integral to the realisation of benefits. Organisations deliver best when there are robust processes in place to manage outcomes, with early intervention if there is a risk of benefits not being delivered or disbenefits increasing. Stakeholder views should be gathered and accounted for regularly, and lessons learned both during and between schemes. This is closely linked, and reliant on, the themes covered above.

Case Study: NHS Digital

Williams et al provide a case study of benefits management in NHS Digital, with a focus on two IT transformation programmes. This identifies culture as key to successful benefits management and realisation.

In NHS Digital, *"benefits were in focus throughout the lifecycle of the project, partly as a result of leaders emphasizing their importance, with an understanding that financial benefits are necessary for justification, with a recognition that non-financial, societal benefits are equally important".*

Stakeholder views were noted to be important: "*the man or woman in the street would be more interested in being able to get an appointment with their GP sooner than in knowing £1m had been saved.*"

The legacy of benefits management after project completion was also highlighted: "*One case had a memorandum of understanding signed with the Implementation and Business Change Team (IBC) before handover, saying that benefits are being handed over to the IBC team to manage, with continued support from the benefits manager. As the IBC team is working closely with users, they are in a better position to encourage the use of services*"[1]

1   *Williams et al p12*

5. Current approach to benefits management in National Highways

5.1 National Highways' structure reflects both the classification of schemes or service being delivered and the geographical spread of Regions and Areas. It is broadly split into Major Projects and Operations, with a number of other directorates for supporting functions and assurance.

5.2 We have reviewed benefits management processes across the different scheme types as a sample of National Highways working practices. Supporting functions such as HR have not been considered at this stage.

5.3 An overview of the different project frameworks and their alignment to NH benefits requirements can be found in Figure 5.

Major Projects

5.4 A Benefits Management Manual has been developed in National Highways that guides benefits processes but is primarily applied on schemes managed by the Major Projects directorate. The Manual aligns to the Projects Control Framework lifecycle, which is widely used across NH and is divided into Gates 0-7.[11] Aligned to the Spending Review cycle, at Stages 0-2 projects in development are led by the Customer Strategy and Communications directorate. Benefits are identified and the project or programme is handed to the relevant delivery team. Benefits management processes and wider governance are aligned to these gates, which determine for example the point of handover to delivery (see figure 3, below).

5.5 A mature benefits management approach in Major Projects has been developed over a number of years. Prior to 2018 external consultants were commissioned to do POPE reviews of Major Projects, but this service has now been brought in house and is carried out by the Evaluation Team with some ongoing consultant support. National Highways are currently in the process of updating the Benefits Management Manual to reflect updates in benefits practices and make it more applicable to other project types.

5.6 There are two key benefits products mandated in the Benefits Management Manual for Major Projects:

BREPS: Benefits Realisation Evaluation Plans
BREPS are collations of benefit details and are intended to be a short document signposting to other benefit related products and documents.

POPEs: Post Opening Evaluation Plans
National Highways undertake POPEs to compare the expected impacts of a project with the outturn impacts after construction has been completed and the project is open to road users.

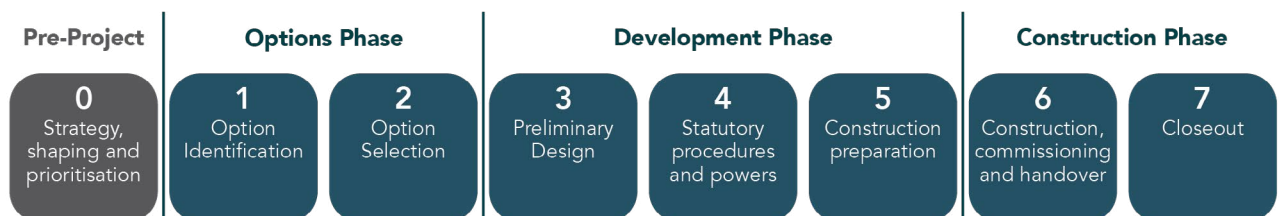| Pre-Project	Options Phase		Development Phase			Construction Phase	
0 Strategy, shaping and prioritisation	**1** Option Identification	**2** Option Selection	**3** Preliminary Design	**4** Statutory procedures and powers	**5** Construction preparation	**6** Construction, commissioning and handover	**7** Closeout

Figure 3: Projects Control Framework

5.7 POPEs are highly detailed and include information such as post-opening impacts of a scheme on traffic volumes, journey times, noise and safety. POPEs are retrospective, carried out after construction is completed. BREPs are also a requirement in Major Projects. Carried out at PCF Gate 5, they bring together benefits products such as Benefits Registers and KPIs to provide a clear summary to hand to delivery teams. BREPs are also used in other parts of National Highways, but not consistently and their completion tends to track the maturity of benefits practices in that area.

5.8 Benefits management is carried out by different individuals and teams across the organisation, with no single approach to resourcing it. Within the Chief Analysts Division, the Evaluation Group have responsibility for appraising BREPs produced within Major Projects, and are currently in the process of expanding their scope to evaluation of Operations, Maintenance and Renewals. Appraisal of benefits forms part of this evaluation.

Operations, Maintenance and Renewals

5.9 Currently, there is no one process or guidance document which can be applied across all of Operations Directorate's projects and programmes; this is a focus of the maturity assessment and recommendations below. The most commonly used project framework is known as 3D; Develop, Design, Deliver. It is noted that the types of project and service delivered by this directorate are highly varied and therefore different approaches are expected to be suitable (see Figure 4).

5.10 It is often more challenging to identify benefits for programmes - like those under Operations – where the outcomes are the maintenance of the status quo or avoidance of a risk. In these cases, the benefits may be the maintenance of safe standards, or reduced spend on assets as major works are avoided by smaller maintenance works

IT projects

5.11 For IT projects, the PMF framework is used as an alternative. For both frameworks, there is a clear alignment to the benefits management lifecycle and, in Major Projects, template documents to be completed at each stage (see figure 5).

National Highways 2020 Benefits Strategy

5.12 Hyperion's 2020 report found that POPEs and BREPs were generally completed to a high standard; however it noted that they are resource intensive and not used for smaller projects. In their absence, the report found that there was not a clear process for Benefits Management across National Highways. 10 recommendations were made for National Highways to action, which can be found at Annex A. That report also provides a detailed overview of the Benefits Management Manual and Major Projects practice as it stood in 2020.

5.13 National Highways' 2020 Strategy stated that "*while in Major Projects there is an established (albeit not fully mature) process to support benefits management and its continuous improvement, other directorates face several issues such as:*

- *Lack of benefits management definitions outside Major Projects;*
- *Multiple benefits management standards and processes, tools and practices;*
- *No benefits management support for many directorates;*
- *Unclear ownership/accountability of benefit management and ineffective handovers.*"

5.14 Updating the Benefits Management Manual will be a core part of delivering on this strategy, and National Highways are in the process of bringing together a working group to deliver this update in a way that reflects the needs of the whole organisation and which adds value. This will align with concurrent updates to NH's Value for Money framework.

5.15 The 2020 Strategy concluded that "*the vision is to: "Make Highways England a mature outcome-focussed delivery organisation before 2025"*". In this strategy NH defined 19 actions to strengthen benefits management across the organisation. Through interviews, reviews of benefits and project documents and case studies, we provide below a review of progress against this target.
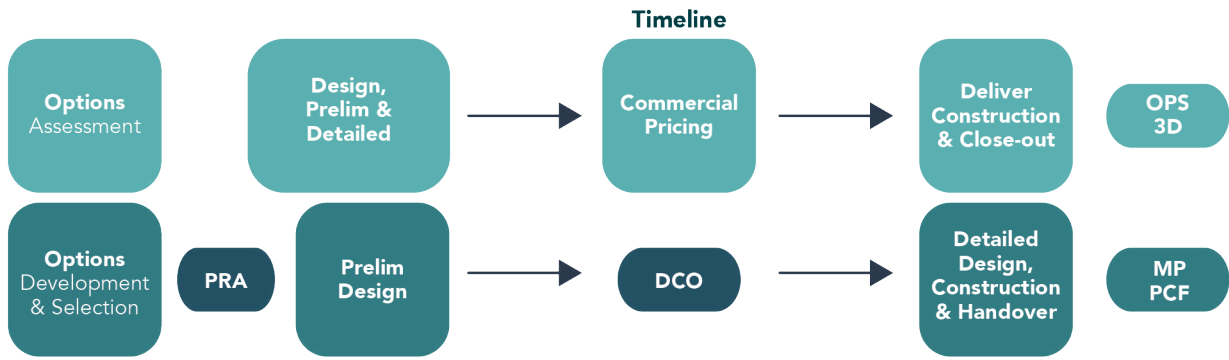
Figure 4: Design, Develop, Deliver Framework

IPA Approach Stage	Identify and Quantify	Value and Appraise		Plan	Realise	Review
Benefits Management Activities	Identify project's strategic objectives Identify long list of scheme benefits and disbenefits into initial benefits register	Reationalise benefits in benefits register Categorise benefits Begin quantification of benefits Create benefits map	Refine quanitification of benefits	Refine quanitification of benefits Baseline data for benefits realisation Begin and data collection needed for evaluation	Create future plan for realisation of benefits Begin to deliver benefits of scheme through construction	Measure whether benefits have been delivered (ongoing) Handover scheme to Operations for Business as Usual
PCF Stage	Pre-project	Options		Development	Construction	
	0	1	2	3-5	6	7
	Strategy, Shaping and Prioritisation	Option Identification	Option Selection	Design, Stat Procedures and Con Prep	Construction, Commissioning and Handover	Closeout
PCF Products						
Benefits Register	Produced	Refined	Refined	Refined	Reviewed	Reviewed
BREP				Produced	Refined	Reviewed
IT Projects (PMF) Lifecycle	PMF Ideas Stage	PMF Feasibility Stage		PMF Procurement Stage / PMF Prepare for Change Stage	PMF Implement Change Stage	PMF Closeout Stage

Figure 5: Overview of project framework and benefits requirements, from NH Benefits Management Manual

6. Assessing National Highways current Benefits Management Maturity

Enhancements

6.1 Enhancements schemes make up a significant investment area in National Highways' delivery plan for 2020 – 2025.[12] They are managed within Major Projects and therefore follow the Project Controls Framework, are expected to follow the full guidance in the Benefits Management Manual, and are supported to do so by the NH Evaluation Team.

6.2 Major Projects is comprised of the Smart Motorways Programme, Complex Infrastructure Programme and Regional Infrastructure Programme, with the latter two included in this review:

- **The Complex Infrastructure Programme (CIP)** comprising enhancement schemes above £500 million in estimated cost, and relating to the delivery of nationally important infrastructure. They are known as Tier 1 schemes as they are subject to staged approvals by DfT.
- **The Regional Infrastructure Programme (RIP)** which delivers enhancement schemes focused on tackling regional problems around safety, congestion and capacity, such as upgrading A roads, improving motorway and A road junctions and link roads, or providing new carriageways for motorways and A roads. These can be Tier 1 and Tier 2 schemes.

Policy & Process

6.3 As each of these programmes sits within Major Projects, they take part in mandatory benefits processes from PCF Stage 0.

- **Stage 0 – 2:** Completion of a Benefits Register and Benefits Map
- **Stage 3 – 7:** Completion of a Benefits Realisation Evaluation Plans
- **Stage 7:** Completion of a POPE

6.4 This provides a way to identify scheme objectives and benefits at an early stage, feed them into design decisions and track them through to POPEs.

6.5 To provide consistency and capacity in this benefits management, the teams have access to template documents for the above, as well as guiding tools such as an excel-based benefits mapping template. CIP benefits are managed in stages 0 – 2 by a Pipeline Team before being handed at Stage 3 to a dedicated Benefits Manager for each scheme, while in RIP a Benefits & Value Team manage this process throughout. This difference in resourcing approach often means that CIP BREPs are more detailed; however this is to be expected with nationally significant and large projects. The consistency of approach across CIP and RIP allows for portfolio-level assurance and analysis of benefits included in BREPs and POPEs.

6.6 It is noted that the scale of the schemes managed by Major Projects often means a significant lag between the original identification of benefits and the completion of a POPE, in some cases more than 10 years. This means that benefits processes on Major Projects schemes may not always be using the latest best practice – for example, benefits identification may have been based on earlier iterations of TAG guidance.

6.7 Building on this established benefits management practice, CIP and RIP are at an early stage of work to widen the benefits categories for Enhancements to include social value. This work has begun with a tool developed with the Supply Chain Sustainability School, but it is not yet integrated into wider benefits or project management processes.

Governance

6.8 The completion of a Benefits Map in CIP and RIP facilitates the clear ownership and handover of benefits. In this process, supported in RIP by the Benefits & Value Team and in CIP by the Benefits leads, benefits and disbenefits are categorised and allocated to project stages, e.g. during construction, post-opening, and to specific project scope. There is also a Senior Responsible Owner (SRO) for benefits in Major Projects

---

6.9 Benefits are reviewed line by line, with clear owners allocated and SRO in place for overall responsibility. The Benefits Register is reviewed at every PCF stage to allow teams to monitor forecast benefits. If there are major changes to a scheme as it progresses through design and into delivery, the benefit allocated to the scope which had changed would be reviewed to feed into a recalculation of the Benefits-Cost Ratio.

6.10 On Enhancements evidence was provided that benefits maps and benefits profiles are aligned to and reflect wider organisational objectives, KPIs and DfT strategic aims. The link through to organisational objectives is clearly reflected in internal project reporting.

6.11 Assurance of the identification and realisation of benefits is focused on realised benefits as reported in POPEs. There is an annual audit of project outcomes across POPEs.

6.12 In the view of the review team, this process represents some of the best established benefits management in the public sector, as is appropriate for the significant capital investment managed by the Enhancements team.

Capacity & Capability

6.13 As set out above, CIP projects are expected to have a dedicated Benefits Managers for each scheme while in RIP there is a regional Benefits & Value team. Training on benefits management and completing business cases is available in Major Projects, and the Benefits Management Manual provides the foundation for practice in this area.

6.14 In addition, the Benefits & Value team run sessions for delivery teams on how to complete Benefits Registers and attend team meetings across the Directorate to raise awareness of benefits processes. National Highways would benefit further from generating e-learning and drop in sessions to complement these services and upskill delivery teams. Formalised e-learning would also improve resilience, for example where team members change, and it is noted that any significant additional benefits requirements in this area would lead to resourcing challenges for the benefits leads, particularly in the RIP team.

Culture

6.15 The benefits culture in Major Projects includes evidence-based assessment of whether benefits are on track to be delivered throughout the scheme lifecycle. Those engaged with through this review showed genuine intent to deliver high quality benefits management and realisation, and a desire to continue to innovate and improve this practice, within the bounds of the available resource.

6.16 There are clear escalation routes to the Sponsorship Forum and, if necessary, the Executive Board in cases where benefits decrease or disbenefits increase. Project workshops are used to communicate findings of benefits evaluations to operational teams and to facilitate lessons learned. According to those we engaged, there has been increasing buy-in to benefits processes and an embedding of a benefits culture in CIP and RIP.

6.17 In the focus sessions, stronger working relationships between the Benefits, Value, Assurance and Evaluation teams were seen as critical to further enhancing benefits management moving forward.

6.18 The below Radar Chart shows a quantitative scoring on a 1 – 4 scale (detailed on page 10) for each of the four themes, based on a combination of focus sessions, surveys and reviews of NH internal documentation.
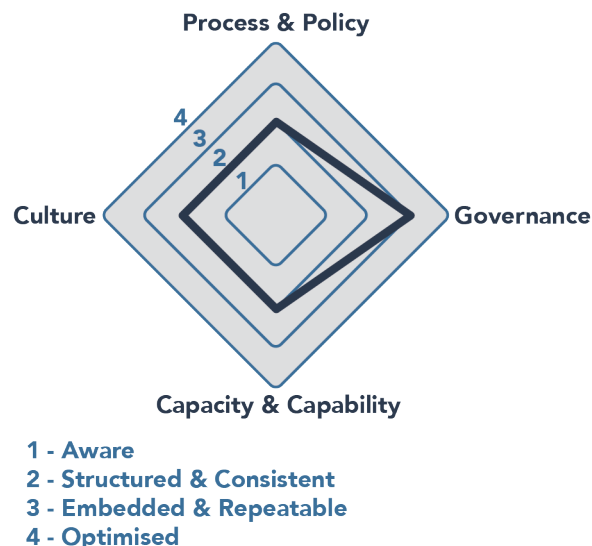

1 - Aware
2 - Structured & Consistent
3 - Embedded & Repeatable
4 - Optimised

Figure 6: Enhancements Radar Chart

Designated Funds

6.19 Designated Funds were introduced by National Highways in 2015 to "*fund activities beyond the traditional focus of road investment*". This includes improving economic, social and environmental outcomes, upholding statutory obligations and responding to wider government strategies. There are four funds running in the 2020 – 2025 period:

- Safety and congestion fund
- Users and communities fund
- Environment and wellbeing fund
- Innovation and modernisation fund

Policy & Process

6.20 The Designated Funds team are the owners of the fund, but do not deliver the work directly; instead, delivery teams from across National Highways develop proposals, which are then reviewed for fit with the aims of the Designated Funds and approved for funding. The proposals could cover a range of different project types in National Highways, from funding for additional work in Major Projects to consultancy, sustainability or community-focused work. The governance and management of those delivery projects is then the responsibility of the delivery team who proposed the work, with Boards, stage gates and so on aligned to their team's policies. Because of this, the level of benefits management in Designated Funds is largely a reflection of wider benefits practices in National Highways.

6.21 The Delivery Manager for a scheme will develop a business case (using their Directorate's templates and requirements) and a project summary form which outlines how the project aligns to a Designated Fund's aims and principles. The Designated Funds team then use logic maps, developed for each Fund, to fairly and consistently test the business case against the stated aims of the Fund. These fund principles are also linked through to the strategic objectives of the relevant Road Investment Scheme such as 'Enhancing Safety'. If approved, funds are released to the Delivery team.

6.22 At the completion of the scheme, delivery teams are expected to complete a Close Out Form detailing whether the benefits were achieved, the outcomes and the final costing of the scheme. It also requires identifying a named individual responsible for the ongoing management and realising benefits for that project. The Form does not require the benefits identified in the close-out to be the same as those identified in the funding application, which may limit the ability to test projects consistently against their business cases. In the focus session, it was noted that the close-out process could be improved to better capture benefits and ensure lessons are learned from each project, and the review team would also suggest a mid-project benefits check-in to assess whether any change in approach would be needed to secure the anticipated benefits.

6.23 The Designated Funds team is involved again at the evaluation stage. At the end of each Roads Investment period there is an evaluation of the projects delivered through the Designated Funds and whether they have represented value for money; at this stage there also is consideration of whether they have delivered stated benefits. The aim of this evaluation is to consider the success of each scheme but also to aggregate at fund level. Some schemes, such as biodiversity mitigation planting, can only be assessed for benefits some time after completion.

Governance

6.24 At programme level, there is a clear understanding of how the programme will contribute to NH's broader corporate goals. A workshop was held, and a logic map was produced, which aligns with good practice within the Major Project Portfolio. Further work could be done to ensure that the programme-level benefits are tracked through project delivery and then aggregated at the end of a funding cycle to provide evidence that benefits have been realised.

6.25 Led by the Delivery team, at the project level, RACI structures exist for each funded project and each scheme has a Project Manager to support the management of benefits. Assurance of benefits in Designated Funds is largely reliant on the completion of Close Out Forms, which are completed for each project. Governance at a project level could be improved by documenting owners for key benefits within the RACI structure and putting in greater structure to track these benefits through delivery, for example adding a standing agenda item to project updates or having a mid-point check in as previously noted.

6.26 One challenge is putting in place governance practices suitable for the vast range of Designated Funds projects, ranging from £10,000 to £50m schemes across a wide variety of scheme types. The team have been taking advice and considering how to put in place best practices, for example practices, for example, template benefits products, but has not yet found a solution to this issue of proportionality. Simple steps would include ensuring that each project RACI specifically references key benefits, for small projects this might be 1-3 core benefits, which can be scaled up as proportionate.

6.27 A key challenge would be to consider whether any processes put in place would duplicate existing governance in the delivery teams' own directorates. This would not only lead to additional resource requirements but could raise a risk of double-counting benefits.

Capability & Capacity

6.28 The Designated Funds team are highly aware that processes they put in place will have resourcing and cost implications across National Highways delivery teams. They have recently brought in additional resource to support benefits evaluation and close out reports, and are in the process of reviewing their benefits management arrangements. They are also aware that small changes to process can have a large impact on the organisation when aggregated across the many Designated Funds projects.

6.29 Currently there are no training modules, best practice examples or templates available to guide benefits identification, monitoring and evaluation beyond the Close Out Form. Workshops have previously been held, to support delivery teams with benefits management, but with a small team and a large portfolio of 1000+ Designated Funds projects it has been a challenge to achieve full coverage.

Culture

6.30 At a programme level, there is a strong focus on the wider benefits and value of National Highways' assets and services. The SRO engaged was committed to improving the culture to ensure each project was benefit-focused, although there was an acknowledgement that delivery on time and budget remain the critical parameters for judging successful projects.

6.31 Lessons learned are documented for each project through the Close Our Form and shared within Designated Funds team. This team would benefit from greater access to best practice examples, templates and knowledge banks to share this learning or learn from other teams.

6.32 Assurance of benefits does exist through the project summary and close out forms, but the research team saw no evidence of benefits-related assurance through project delivery.

6.33 The responsibility for stakeholder engagement related to benefits, sits with those delivering the project, not the Designated Funds team. It was noted that, the points where schemes are handed between teams are the most challenging to maintain a focus on benefits realisation. Generally, there is low visibility of how delivery teams are engaging stakeholders in relation to benefits for funded schemes.
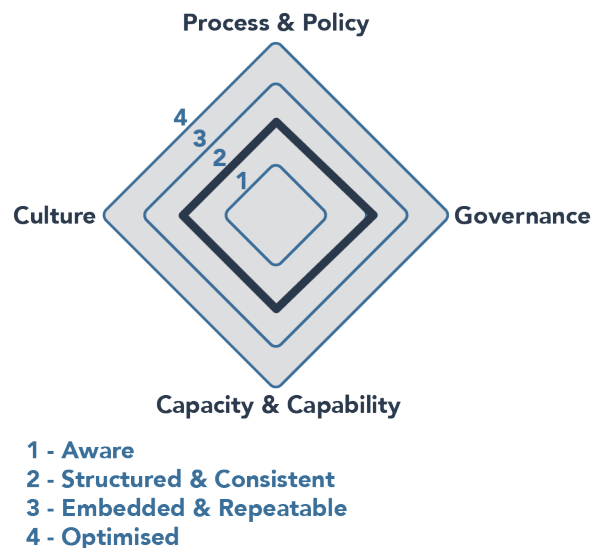

1 - Aware
2 - Structured & Consistent
3 - Embedded & Repeatable
4 - Optimised

Figure 7: Designated Funds Radar Chart

Operations, Maintenance and Renewals

6.34 Operations, Maintenance and Renewals (OMR) make up a significant proportion of National Highways' investment in both capital projects and resource, and this proportion is likely to increase over time. It is therefore critical that it operates effectively. Each of the three areas operate independently to some extent and there would not necessarily be a need for single governance processes to span different types of work and project (for example, capital investment in assets vs operation of weather stations). Funding includes both capital expenditure and operating expenditure.

6.35 For this report we have considered the Traffic Officer, Asset Delivery programme and Concrete Roads programmes independently of OMR due to their scale. This section considers wider processes and practice across OMR.

Policy & Process

6.36 There is no single, consistent policy or process defining benefits management across OMR programmes. For capital expenditure, business cases include benefits, but these are not formally tracked through delivery and into operation of the new or repaired asset. There is some evaluation of lessons learned on outputs which could develop into a more consistent benefits capability. Furthermore the Evaluation Team are expanding their focus on the outputs of OMR beyond their traditional focus on Major Projects.

6.37 As stated above, there are individual projects or programmes which have a more developed policy or process for benefits within OMR, but this does not carry into other areas. For example, larger Renewals projects would be expected to follow the Benefits Management Manual requirements which apply to Enhancements projects.

6.38 It is also noted that benefits are likely to be easier to identify for capital projects such as those delivered in Maintenance and Renewals than operational projects.

Governance

6.39 Similarly to policy, there is currently no set governance process for benefits across OMR, and benefits are not embedded in the Develop, Design, Deliver (3D) process. The area is looking at ways to improve this including: i) linking project outputs and benefits to NH strategic aims and KPIs; ii) exploring options to assess project benefits throughout the lifecycle rather than only following delivery or project completions; and iii) sharing learning across the Directorate more effectively through shared platforms. This would then need to be integrated into the 3D process.

Capability & Capacity

6.40 In some areas of OMR senior leaders have regular catch ups with the central Evaluation Team, which can serve to build understanding of benefits across the Directorate. The review team found that OMR teams were not aware of any formalised benefits training available to them, but project managers who have completed relevant training will likely have completed benefits modules within this.

Culture

6.41 The engagement and evidence provided made it very difficult to appraise the culture surrounding benefits management. An example was provided of how a project had responded to the increasing risk of disbenefits and the subsequent action that was taken, which demonstrated a basic level of awareness.

6.42 A way of developing the benefits culture for OMR would be for those programmes that sit within it and have a more developed awareness of benefits to share knowledge and lessons with those in less mature areas for benefits. Building a lessons-learned culture would be a first step towards improvement.
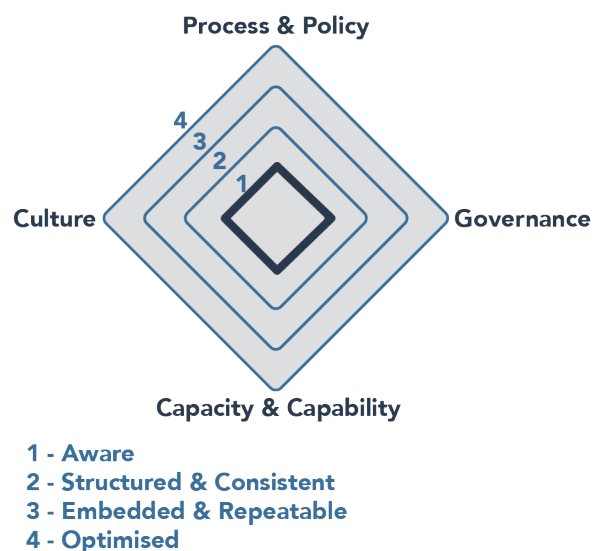

1 - Aware
2 - Structured & Consistent
3 - Embedded & Repeatable
4 - Optimised

Figure 8: OMR Radar Chart

Concrete Roads Programme

6.43 The Concrete Roads Programme was devised as a safety critical, proactive response to the need for maintenance and repairs across the Strategic Road Network, and as a way of removing the need for costly and disruptive reactive maintenance works. It covers works across the National Highways estate which are broadly in two categories: reconstruction of roads, and Life Extension Works (LEW) which are designed to extend the usability of an asset by 5-10 years. The programme sits within Operations with the aim of full reconstruction of all Legacy Concrete Road assets by the end of RIS6.

Policy & Process

6.44 The projects being delivered through Concrete Roads are managed by different teams across National Highways, requiring a programme-level management function. Desired benefits of the programme have been identified which include reducing the number of repeated interventions on the same asset, the use of lower carbon concrete, and more efficient delivery of repairs. The review team found that the project team were aware of and clear about these benefits. However they were not formally identified through a benefits management process and there is not a clear reporting process or policy to be followed in monitoring and continually assessing benefits for the programme.

6.45 There is ambition in the team for benefits to be formalised in the procurement requirements for the next phase of works.

Governance

6.46 Currently there a central PMO team for the programme, and an SRO for Concrete Roads, but no formally named SRO for benefits. Similarly, while there is good awareness of benefits and what each project is delivering, there is no requirement to aggregate and report on whether each project is identifying and delivering on benefits. This is an area the project team are currently working to improve and have an interest in doing so as part of the development of RIS3. There are opportunities to integrate benefits into the team's Develop, Design, Deliver (3D) programme management governance.

Capability & Capacity

6.47 The team have a strong culture of sharing learning and building capability on the delivery of concrete roads, but currently this does not include learning or knowledge sharing on benefits across the wider organisation. There is also a lack of capacity to take on significant additional processes and a need for consistent training and guidance due to changes in personnel across the programme.

Culture

6.48 The programme team convene a monthly hub group where best practice can be shared across regions and teams delivering concrete roads projects. This ensures that the regional teams have key templates and information they need to deliver effectively. This, alongside formal benefits reporting and training, could be a way to improve the culture of benefits in the team and enable lessons to be learned effectively between projects.
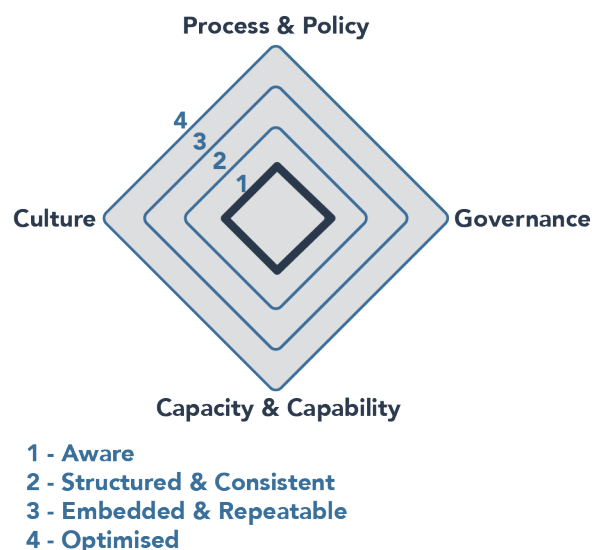

1 - Aware
2 - Structured & Consistent
3 - Embedded & Repeatable
4 - Optimised

Figure 9: Concrete Roads Radar Chart

Traffic Officer Programme

6.49   The Traffic Officer Programme sits within Operations and is responsible for the day-to-day equipping and deployment of Traffic Officers across the network. This includes providing equipment, kit, and vehicles. Within this team there is also an operations continuous improvement function which runs projects proposed by different parts of the business.

Policy & Process

6.50   The evidence shared illustrated that larger projects, which follow the standard business case and controls process, have good structures in place. A business case was reviewed, that had a series of benefits identified, which were evidence based and a realisation plan. There was evidence that benefits had been appraised through delivery of the project.

6.51   Most often the benefits identified are aligned to the National Highways corporate KPIs of operational safety and customer experience, although those engaged noted that wider societal and environmental benefits were increasingly documented too.

6.52   For smaller schemes, a statement of need or mandate template is used. These templates do not currently specifically reference benefits or benefits management. The inclusion of benefits into these templates, aligned to the DF approach, would help the TO programme to improve its approach to benefits management.

Governance

6.53   Proposals are considered and approved through a governance process which is adapted to the level of proposed investment. In all cases the template proposal is taken to an Operations Change Panel, while investments over £5m are also required to complete a business case and be taken to an Investment Decision Committee. If funding is approved a project manager is allocated and working groups are held to drive the change. The Traffic Officer programme team assess the delivery of benefits twice in the 12 months following completion and review calls, which include the relevant specialist team (e.g. Health & Safety officials) take place 12 month after delivery to check whether the intended benefits are realised.

6.54   It was noted that while this governance process is well established it would benefit from more consistent and clearer documentation, check ins throughout the project, and reporting upwards, to enable lessons learned.

Capability & Capacity

6.55   Every team member has received some structured training related to benefits through their project management qualification, which is proportionate to their roles. However, signposting the team to the internal training related to benefits would further improve knowledge. It was expressed that while there was ambition to do more in benefits, proportionality was important to limit the resource ask on teams.

6.56   It was also noted that, while lessons are documented in post project sessions, a more structured process to close out projects would assist in building capability to deliver operational project benefits more effectively. This could include standardised ways or running lessons learned in such a way that they can be easily aggregated and shared with future similar projects.

Culture

6.57   Within the Traffic Officer programme there appears to be an open culture in which the risk of benefits not being delivered can be raised and addressed as projects progress. However as in other areas this is not formalised or structured into a process that can be consistently followed meaning the culture is less resilient as personnel change.

6.58   Lessons learned are documented and shared across project managers. In addition post-project follow up sessions, provide a good mechanism to capture ongoing feedback.

6.59   A strength of the Traffic Officer programme is its engagement with stakeholders on projects and benefits. Working groups on change projects include Service Delivery Managers, front line staff and Trade Union representatives to gauge impacts and further benefits associated with a change in delivery.
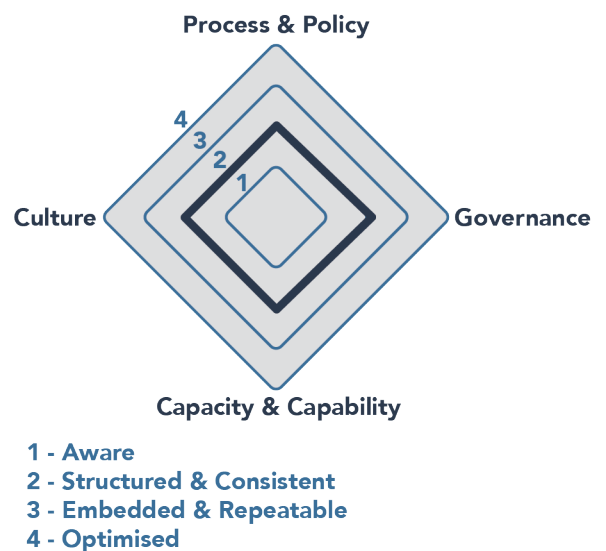

1 - Aware
2 - Structured & Consistent
3 - Embedded & Repeatable
4 - Optimised

Figure 10: Traffic Officer Programme Radar Chart

Review of National Highways Benefits Management Maturity

Asset Delivery Contract Transformation

6.60 Asset Delivery was a major transformation in how National Highways contracts for work and services. It involved bringing services which had been run by contractors in-house to be directly managed by National Highways regional teams. The aim was to "*improve our asset knowledge and increase our control, including over interventions, planning and sequencing. This will improve safety and quality, as well as reducing disruption and delivering better long -term value for money*".[13]

6.61 Asset Delivery was rolled out to the first Area in 2016 and has since been completed across all NH Areas and Regions. It was delivered as a national programme, with a central Programme Team and Programme Board. Each Area or Regional implementation was delivered in collaboration with the regional team, with learning carried across the national programme..

6.62 It was a wide reaching programme which has created significant change both internal to National Highways but also across the supply chain.

6.63 Eight Critical Success Factors were identified in the Strategic Case, against which performance would be measured. These were aligned to the three organisational imperatives of the time, which were Safety, Delivery and Customer. At each major governance point, an update on the delivery of these benefits was provided – for example, increases in outputs from each roadworks intervention as a result of the new organisational structure were identified as metric associated with the benefit of 'improving network availability and the customer experience'.

Policy & Process

6.64 The review team was not able to identify a clear policy for benefits management in transformation projects in National Highways. Asset Delivery was a transformation on a scale not seen in National Highways for a long time, and the outcomes of transformation programmes are not as easily quantifiable as other projects such as infrastructure delivery. It is not easy to clearly define the benefits accrued to the Asset Delivery programme alone. This is due to the 5 year duration of the roll out of Asset Delivery region-by-region, and the fact that there were other transformations happening in National Highways concurrently..

6.65 While there was not a specific policy or process to follow, the Asset Delivery Team did define critical success factors in the Enterprise Business Case for the transformation, and these success factors were tracked through the programme. Some, such as improvements in Health & Safety KPIs, were quantifiable, while other are less tangible but no less important, such as improving National Highways' understanding of its assets. The progress of these success factors has been tracked, and where possible the link back to practices introduced under Asset Delivery made clear.

6.66 There are case studies in literature on benefits which demonstrate how transformation programme benefits can be identified and monitored, which may be useful to future transformation project teams in NH.

Governance

6.67 Early in the programme, a Programme Board chaired by the Operations Director was in place with responsibility for its implementation. As it progressed and the model was tested and refined across the first few regions, this was transitioned to a Programme Group chaired by the Programme Director. This provided the Senior Responsible Owner function for the delivery of benefits. Regular updates on the programme were also provided to the National Highways Board, typically at key project stages or on completion of roll out to a region or area. This included actions and lessons from the roll out.

6.68 The aims and benefits of the programme were aligned to organisational level KPIs as they stood in 2015 at programme inception, which included Health & Safety, Customer Experience (e.g. making use of the new NH oversight role to optimise the use of road closures for works) delivery management. Benchmarking of KPIs against the previous performance of subcontracted work was challenging as on the previous model there was not consistent tracking of the same KPIs or performance metrics across regions. As such it was not possible to identify region-by-region whether KPIs were improving as Asset Delivery was rolled out. However given the scale and reach of the programme overall improvement of benefits delivery was taken to be a positive sign for the performance of the programme.

Capacity & Capability

6.69 The Programme Team applied a standardised programme of change to each region, working with regional project leads to adapt and apply it. Due to the pace of roll out, there was limited time for the Programme Team to assist the regional leads to bed in change before moving to the next region, which would have allowed for greater depth of benefits evaluation. In addition, with the timing of the programme starting prior to the publication of the Benefits Management Manual and the specificity of it being a transformation project, the team has little access to training or templates to facilitate benefits management.

Culture

6.70 Despite there not being formal training in place, the team had a strong culture of lessons learned and evaluation of whether the Asset Delivery model was delivering on its aims. Board papers provided regular updates on progress against success factors and a lessons learned register for the whole programme was maintained which included actions to address any risks of the programme not delivering its benefits.
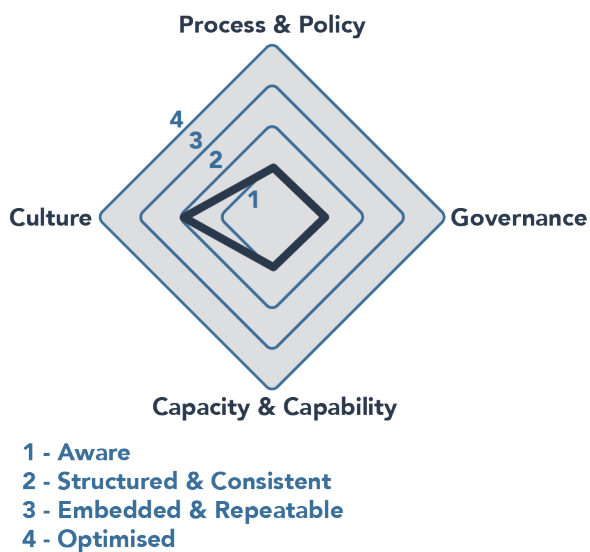

1 - Aware
2 - Structured & Consistent
3 - Embedded & Repeatable
4 - Optimised

Figure 11: Traffic Officer Programme Radar Chart

CHARM Digital Transformation Programme

6.71 The Common Highways Agency Rijkswaterstaat Model (CHARM) is a joint project with the Dutch equivalent of Highways England, RWS, to introduce a new integrated Advanced Traffic Management System (ATMS) into National Highways control centres. It was begun in 2015 in response to the need to replace outdated technology in control centres which was not integrated, costly to maintain and lacked capacity for an increasing number of roadworks across the network.

6.72 The planned project duration was 26 months but was extended significantly following a series of re-baselining exercises and delays due to Covid-19.

6.73 At the time the project developed, benefits management was less well established in National Highways and across the sector. At that stage, the main programme aims were to tackle the issues with the previous control centre technology suite as above, and to reduce operational costs. As the programme has progressed, benefits linked to corporate KPIs have been identified, such as efficiency improvements to the Traffic Officer programme and improved staff wellbeing enabled by the digital transformation.

Policy & Process

6.74 At the time of the CHARM programme beginning National Highways did not have an identified benefits process for IT projects. The original business case identified reduced Opex as the benefit of the project. Some benefits were stated in the procurement requirements but not formally identified or monitored throughout the roll out of CHARM.

6.75 It is noted that as an enabling function, it is often harder to identify standalone benefits for IT projects; this is similar to the challenges with Asset Delivery above. In IT, assets also become outdated or defunct more regularly than roads infrastructure does, meaning that IT transformation projects are required more frequently, which may reduce the incentive to proactively identify multiple benefits; necessity is the driver.

Governance

6.76 The Benefits Management Manual (last updated in 2018) now includes the stages of IT projects and expected benefits management associated with these, as seen in the chart on page 19. At the time, benefits on CHARM were not monitored or factored into assurance, although the compact delivering CHARM were expected to report on progress against the business case.

Capability & Capacity

6.77 Currently there is no allocated benefits capability on CHARM and the team's key priority is to deliver the programme to schedule.

Culture

6.78 The team expects to learn lessons from CHARM in the delivery of future IT transformation programmes, which would include the clearer identification of benefits. This would feed into the next Road Investment Strategy.
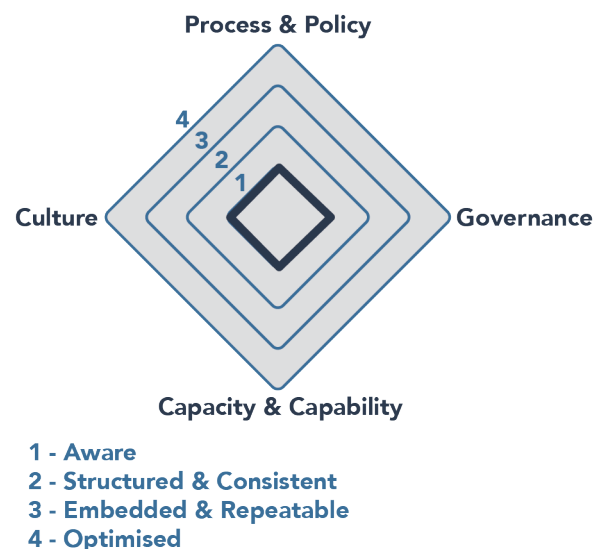

1 - Aware
2 - Structured & Consistent
3 - Embedded & Repeatable
4 - Optimised

Figure 12: CHARM Radar Chart

7.   Conclusions

7.1   In summation, this report provides snapshot of the current maturity in relation to benefits management across National Highways. Through staged research, based on benefits management best practices, the findings illustrate the range in maturity across the organisation, which ranges from best practice to early-stage maturity.

7.2   Overall, the staff at National Highways understand the importance of benefits management. Those engaged felt able to appropriately escalate when there is a risk of benefits decreasing or di-benefits increasing. All those engaged during the research were keen to improve benefits management for their respective business units.

7.3   The analysis has shown that National Highways has market-leading policy, process and capability within its Major Projects portfolio. There are pockets of good practice more widely, but maturity is generally much lower, typically between a basic level of awareness and a slightly more structured approach. Apart from the larger projects, that follow a structured business case and stage gate process, there is little consistency in the management of benefits. Across all the schemes engaged, a renewed focus on policy, process and building capability is required to improve maturity levels.

7.4   In 2020 National Highways' Strategy noted that there were several challenges associated with benefits management which included:

- *"Lack of benefits management definitions outside Major Projects;*
- *Multiple benefits management standards and processes, tools and practices;*
- *No benefits management support for many directorates;*
- *Unclear ownership/accountability of benefit management and ineffective handovers."*

This research concludes that while benefits management definitions do exist across the parts of the organisation engaged, the other challenges previously cited remain.

7.5   The organisation plans to revisit the policy, process and training that currently works well for Major Projects to explore how it can be updated and proportionately tailored to meet the needs of other directorates. It is imperative that this work receives the buy-in of senior leaders and visibility across National Highways, as the research found that there was limited awareness of the good practice resources that currently exist.

7.6   Although a Benefits team exists within the Major Projects portfolio, the researchers understand that a 'central' Benefits team to support across the directorates does not exist. Therefore, the redevelopment of the Benefits Management Manual and related products, is being led by the Evaluation team. This may be positive in fostering stronger relationships between Evaluation and Benefits. However, as benefits and evaluation are separate disciplines, National Highways should ensure there is adequate input from the internal benefit management SMEs.

7.7   As National Highways and ORR move forward with the findings of this report, it is important to acknowledge that the complexities of consistently achieving a mature approach to benefits should not be underestimated. While policy and process may be relatively quick to address, the adoption of new ways of working will require improved capability and consistent governance. In relation to this point specifically,   National Highways is encouraged to reflect on the role of senior leadership in setting expected standards and assuring benefits are effectively managed.

7.8   Using the knowledge and understanding contained within the report, and the tools used to conduct the maturity assessment it is hoped that both organisations will be better equipped to focus efforts and improve benefits management moving forward.

8. Recommendations

8.1 Based on our assessment of maturity across National Highways teams, we make the following practical recommendations to improve benefits management practices, with a particular focus on those areas where practices are less well developed. This review focused on a sample of projects, however the below could be helpfully applied many different project types in NH.

Policy and Process

8.2 The importance of benefits management is well understood in National Highways but its application varies across the organisation, with some areas of very mature practice and others just starting a journey to managing benefits effectively.

8.3 For teams that are less mature in their understanding of benefits, it can be difficult to know how to identify and measure benefits without input from subject matter experts. We recommend that a 'Benefits Library ' is developed which sets out common benefits, linked to the National Highways strategy and corporate KPIs, along with metrics to measure against and ideally baseline performance. In the first instance, this may be a template spreadsheet. This will enable teams to identify and tailor relevant benefits for their projects and ensure greater alignment of all their initiatives in delivery of NH's strategic goals.

8.4 We note that the metrics or indicators associated with particular benefits can vary depending on whether a project is in delivery (are therefore benefits are forecast) or completed. Therefore, the development of a Benefits Library should provide different options for teams, and be accompanied by clear guidance, so that it can be used by those less familiar with benefit quantification.

8.5 There is always a risk with a benefits or metrics library that consistency is achieved, but a 'tick box' culture is established. This should be mitigated with clear guidance and supporting training.

> **R1:** Develop a Benefits Library clearly linked to corporate strategy and KPIs, which provides a repository for consistent metrics to quantify benefits.

8.6 Outside of Major Projects we would encourage a focus on quality of benefits over quantity. For most smaller projects, 3-5 identified and measurable benefits, linked to corporate outcomes, would provide an improved basis against which to monitor and improve project outcomes.

8.7 For rolling annual works or small projects which are commonly repeated (e.g. fencing repairs), we would recommend that a small and standardised set of benefits be identified. This would have the benefits of quantifying outcomes for these programmes of work without requiring a bespoke benefits approach each time. It would also allow comparison and lessons learned across projects where realisation of the same benefits can be linked to project outcomes.

8.8 This recommendation is aligned to the best practice portfolio-led benefits approach recommended by APMG and the BSI.

> **R2:** Focus on quality over quantity of benefits for smaller projects; 3 – 5 measurable benefits for each project linked to NH strategic aims or KPIs would add value.

Governance

8.9 We strongly recommend that any development in benefits management in National Highways is integrated into existing governance rather than forming a separate process. For example, identification, forecasting and measurement of benefits should form part of standard governance and assurance templates, and be considered at stage gates. This is in line with current best practice in Major Projects.

8.10 Including it as a key responsibility for each SRO would drive senior accountability. Thus promoting a culture whereby the delivery of benefits is always considered alongside cost and schedule, building on National Highways' strategic objectives of customer and delivery focus.

> **R3:** Responsibility for overseeing benefits management processes, and for the realisation of benefits, should be set out in project/ programme RACIs

8.11 The review identified that approaches to benefits management are not consistent across projects and that in some cases, there was no clear accountability for the delivery of benefits. We recommend that NH identify benefits owners across all project types. This should be proportionate to the project type and size; for Major Projects, it is appropriate to have responsible owners for individual benefits, while for smaller projects there may be SROs for all benefits. This individual should have an appropriate level of overall project responsibility. Where clear accountability has already been established, this would be strengthened by the inclusion of benefits related performance targets.

8.12 It is our view that responsibility for benefits management and realisation should remain primarily with delivery teams during delivery stages, rather than funding teams, as they have greater control over the delivery of benefits. Once a consistent approach to benefits has been established, this would allow organisation-level aggregation and the development of an overarching RACI.

8.13 Where there are funding teams sitting separately to delivery teams with their own fund principles (such as the Designated Funds team), these should be aligned to corporate KPIs so avoid duplicating or diverging requirements for identified benefits.

8.14 As set out in the benefits best practice literature, we recommend that benefits are integrated into existing governance and programme management structures rather than overlaying new governance. For example, stage gate template papers could include a section for delivery teams to update on whether there is any change to the anticipated benefits or risks of these not being delivered. This follows best practice for risk management, and ensures that decision makers are aware of forecast benefits throughout the programme lifecycle.

> **R4:** Integrate benefits management processes into existing governance structures, meetings and templates, rather than overlaying new processes, ensuring senior oversight of benefits management. This will make clearer the link between investment decisions, outcomes and benefits.

Capability & Capacity

8.15 There is currently no mandated training on benefits management in National Highways. Within the internal THRIVE system there are two e-learning modules available ('Introduction to Benefits Management' and 'Guide for Effective Benefits Management in Major Projects'), and within RIP and CIP there have been benefits workshops and short form videos which NH could build on. Some staff, such as qualified project managers, have also completed benefits training modules through programmes such as APM.

8.16 Improving access to and awareness of existing learning and knowledge sharing through better signposting would be beneficial. n. More tailored training which is applicable to different project types, and Knowledge Banks for each directorate, would also assist in sharing best practice and lessons learned.

> **R5:** Improve access and signposting to existing training and guidance.

> **R6:** Ensure proportionate guidance and templates exist for all teams.

8.17 Much of our research identified that within NH there is desire to do more mature benefits management, but a lack of capability, with an average maturity rating of 1 (outside of Major Projects). The teams engaged cited that having a supporting role to guide and check their practice would enable them to manage benefits more effectively.

8.18 The NH 2020 strategy noted that most directorates do not have dedicated benefits support, which is supported by the findings of this research. Significant gains in benefits capability could be achieved if National Highways were to allocate some additional resource to appoint a Benefits Lead/Manager for high priority areas, for example in Operations. These named leads would not hold direct responsibility for benefits realisation, but would act as a single point of contact to develop relevant and tailored benefits policy for their area, training, formal and informal sharing of best practice, questions from teams, and first lines of assurance on benefits governance. In essence, these roles would provide a similar function to that of the benefits roles within RIP and CIP.

8.19 Further work is recommended to explore if existing resources could be redeployed internally, or roles extended to provide wider support. However, it should be noted that the engagement with the regional benefits team indicated that this team were at capacity and would be unable to support an increased workload, while maintaining current deliverables, which indicates new resource may be required.

8.20 Having benefits leads would assist teams to identify and monitor benefits to a high standard, which should both improve benefits realisation and strengthen the case for existing projects and programmes.

> **R7:** To increase the organisation-wide maturity of benefits management, supporting benefits roles could be created for key directorates, building capability and capacity.

8.21 Our recommendation is that these Benefits Leads/Managers should also establish a cross-directorate community of practice to allow development of benefits management processes, guidance and accountability. This would allow for lessons to be learned across Directorates, best practice and guidance to be shared efficiently without relying on individual teams to identify and request it, and for continuous improvement of newly developed processes and policy.

> **R8:** A central cross-directorate function could support in setting organisational expectations, providing internal support, sharing best practice and driving the consistency of data collection.

Culture

8.22 Based on our engagement with NH, sharing and application of lessons learned across projects appeared to be a challenge, as is the case in many large organisations. This would merit further consideration wider than benefits. In the scope of this review, we recommend that benefits processes should flow through to lessons learned and improved delivery performance. Use of continuous improvement tools such as knowledge banks, evaluation workshops and aggregation of lessons across projects would assist this in National Highways.

8.23 It is also important that lessons are not just recorded but reviewed. At project inception, the benefits associated with previous similar projects, and whether they were achieved, should be reviewed as part of standard governance.

8.24 As a developing practice, we recommend that continuous improvement is built into the roll out of benefits management practices across National Highways. For example, a Benefits Library should include an area for users to feed back on whether the benefits and metrics were appropriate for different NH projects, and the Benefits Leads or Evaluation Team should review this feedback periodically. Similarly, where benefits are integrated into existing governance Terms of Reference or template documents, a review after a defined period should be included.

8.25 Further continuous improvement practices should focus on the integration of new best practice into benefits management. For example, as Social Value takes on greater focus in infrastructure projects, it is important that this is integrated into an understanding of benefits, rather than developing as a parallel process.

> **R9:** Enable continuous improvement through lessons learned, knowledge banks, and the integration of developing practices in e.g. Social Value.

8.26 Our engagement with teams across NH also suggests that, similar to other delivery organisation, there is currently a weakness in National Highways on how to account for legacy benefits once time has passed since delivery of a project. We recommend that a future study examines ways to effectively assess legacy benefits in a way that adds value and can lead to embedded lessons in future projects.

> **R10:** Develop a policy for the assessment of legacy benefits after project completion.

Annex A: 2020 Report Recommendations

R1 Highways England should ensure that project teams have received adequate training about the importance of benefits management and their role in the evaluation process as it continues to evolve.

R2 Highways England should continue to develop the evaluation process to make sure it is sufficiently flexible and scalable to cover the wide range of schemes and programmes whilst ensuring consistency and comparability.

R3 Highways England should consider whether there are ways to provide an early assessment of scheme outcomes, as well as monitoring benefits over the longer term, so that lessons can be identified and shared in a timely way.

R4 Highways England should ensure that the requirements for benefits realisation and evaluation remain consistent and up to date in the respective processes and products across all projects and programmes.

R5 Highways England should ensure that the Evaluation Group remains fully resourced and skilled to meet the requirements of RIS2, and beyond, and the evolving evaluation process.

R6 As part of the review of future reporting formats for scheme and programme evaluations that better meet the needs of their respective audiences, Highways England could consider what information this will generate that may be of use to the ORR.

R7 Given the potential value of the information they include, Highways England should consider how to raise awareness of the POPE and other evaluation reports amongst the full range of potential audiences

R8 Highways England should continue to develop the evaluation methodologies to consider a broader range of other scheme impacts including impact on the wider economy and customer satisfaction

R9 POPE reports contain a lot of useful information and should be published in a timely manner in order to maximise their value. Highways England should consider what steps it can reasonably take to improve the time taken between report completion and publication without compromising quality.

R10 Highways England should continue to use BREP in preference to SEP and monitor its effectiveness and further improve the evaluation process as required.

Annex B: Bibliography

Axelos, Managing Successful Programmes (MSP) 4th Edition 2023

BSI, BS 202002:2023 Applying benefits management on portfolios, programmes and projects- Guide, BSI Standards Limited 2023.

DiBartolomeo & APMG International, The Fundamentals of Managing Benefits: Optimizing the Return from Investment 2022

Highways England, The Project Control Framework Handbook v4 November 2018

Highways England, Delivery Plan 2020-2025

Hyperion Infrastructure Consultancy Limited, Elliott Asset Management Ltd, Infrata Ltd and Pragmatex Ltd, Reviewing Highways England's Evaluation of Benefits, 2020. Available at https://www.orr.gov.uk/sites/default/files/om/ORR-CT-19-20_Reviewing-Highways-Englands-Evaluation-of-Benefits_FINAL-REPORT_ISSUED.pdf (Accessed on 26.02.2024).

Infrastructure and Projects Authority, Guide for Effective Benefits Management in Major Projects: Key benefits management principles and activities for major projects 2017

Infrastructure and Projects Authority, Assurance of Benefits Realisation in Major Projects 2021

National Highways, Delivery Plan 2022-2023

Williams, A cross-national comparison of public project benefits management practices - the effectiveness of benefits management frameworks in application 2020

Williams et al, Benefits realisation: case studies in public major project delivery with recommendations for practice, 2023