



PR23 policy framework

A technical consultation on the measures in our proposed CP7 outcomes framework

28 July 2022



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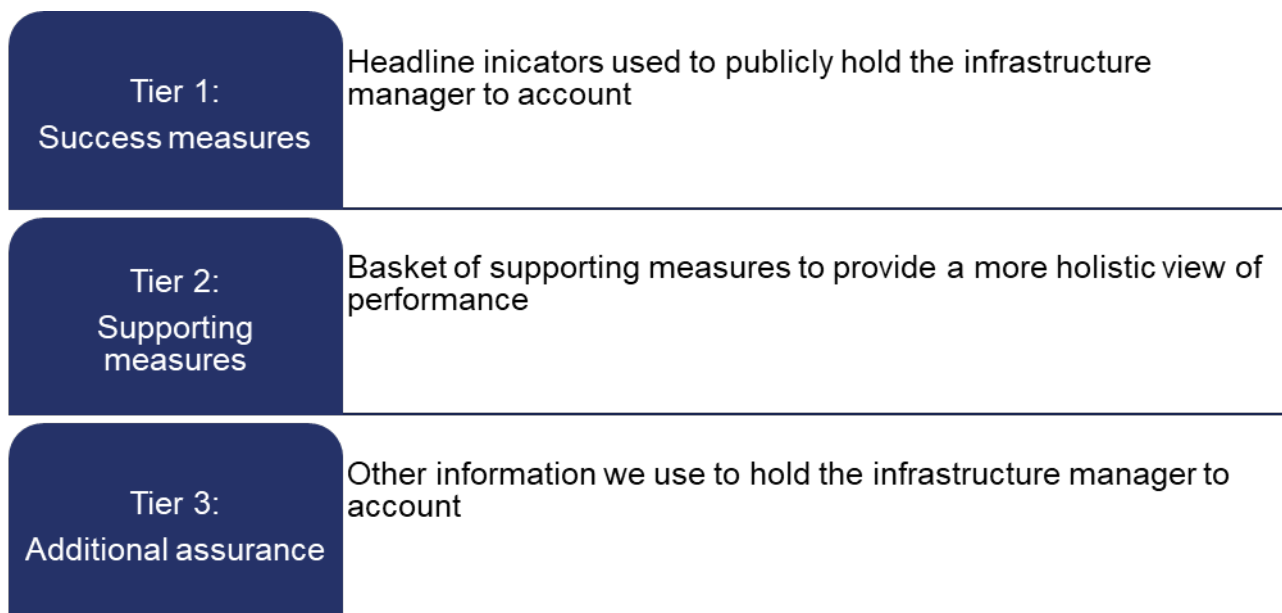
1. Executive summary

- 1.1 This document is a consultation on the measures we are proposing to include in the outcomes framework for control period 7 (CP7) which runs from 1 April 2024 to 31 March 2029. Our CP7 outcomes framework sets the requirements that the infrastructure manager for the national rail network must deliver for the funding it receives. It also facilitates our approach to monitoring the infrastructure manager's delivery of these requirements.
- 1.2 This is a period of significant change for the rail industry. The UK Government has published the [Williams-Shapps Plan](#) for wide ranging reforms to the structure and operation of the industry. The UK Government consulted in June 2022 on the legislative changes required to implement these reforms.
- 1.3 Our proposals are based on the current structure of the rail industry but with a view to rail reform. We recognise that these reforms, as well as PR23, are taking place during a time when the rail sector, along with the rest of the economy, is recovering from the effect of the pandemic. We aim to design a regulatory framework that provides the infrastructure manager with the right long-term incentives to deliver a safe, sustainable, high-performing and efficient rail network. We will also seek to facilitate the UK and Scottish governments' aspirations for the railway while recognising the importance of financial sustainability and affordability. We will stretch Network Rail to deliver for both current and future customers, drive further efficiencies and support the effective operation of the whole railway, alongside other important objectives such as net zero and weather resilience. We will continue to join up our approach to economic and health and safety regulation in doing so.
- 1.4 DfT's legislation consultation proposes that the new entity, Great British Railways (GBR) will take on the PR23 commitments from the current infrastructure manager, Network Rail, and that ORR will retain (and expand) its independent regulatory role. We have set out proposals with a view to them being fit for purpose for the future. We will continue to reflect existing legislation and industry structure (including devolution arrangements) in our design of PR23, until the new legal framework is in place, whilst supporting the direction of rail reform and the creation of GBR as far as is practicable. As such it is even more important that our approach is flexible to change.
- 1.5 We are publishing this technical consultation alongside a [wider consultation on outcomes, infrastructure performance and managing change](#) as part of the 2023

periodic review (PR23). These consultations focus on how we propose to hold the infrastructure manager to account for the funding it receives for CP7.

- 1.6 We propose to use a tiered outcomes framework in CP7 (see Figure 1.1 below). This includes a small number of top-level **'success measures'**. These will be the headline indicators we will use to publicly hold the infrastructure manager to account.
- 1.7 To provide a more holistic view of performance, we propose to specify a basket of **'supporting measures'** that the infrastructure manager should publicly report against in CP7. We will also use **'additional assurance'** information to inform our monitoring during the control period.

Figure 1.1 Our proposed outcomes framework



Our proposals

- 1.8 We are not proposing to introduce a significant number of new measures for CP7. Also, in several outcome areas, we are looking to take a similar approach to CP6, such as in relation to efficiency and financial performance. However, there are some areas where we are proposing a change in our approach, including those listed below.
 - (a) **Passenger train performance:** We are planning to use established and simple whole industry measures, which are easily understandable to a wide audience.

- (b) **Freight train performance:** We are proposing a change in the presentation of the Freight Delivery Metric (FDM) to Freight Cancellations and Lateness (FCaL). We consider that this presentation is easier to understand.
- (c) **Environmental sustainability:** Our proposed measures represent an increased focus in this key outcome area compared with previous control periods.

1.9 We are proposing eight success measures, as summarised in Table 1.1, below.

Table 1.1 Summary of proposed CP7 success measures

Outcome area	Success measures
Train performance: passenger	<ul style="list-style-type: none"> • On Time • Cancellations
Train performance: freight	<ul style="list-style-type: none"> • Freight Cancellations and Lateness (FCaL)
Asset sustainability	<ul style="list-style-type: none"> • Composite Sustainability Index (CSI)
Efficiency and financial performance	<ul style="list-style-type: none"> • Financial Performance Measure (FPM)
Environmental sustainability	<ul style="list-style-type: none"> • One Planet Index (OPI) • Biodiversity Unit • Carbon emissions scope 1 and 2

1.10 We have proposed supporting measures (tier 2) against each outcome area in this technical consultation. Additional assurance requirements (tier 3) are not included. We are not planning to define additional assurance requirements as part of PR23. Instead, we will use ongoing engagement to agree these requirements with the infrastructure manager throughout CP7, so we can react to changing circumstances, while taking a proportionate approach.

1.11 In general, the focus of our monitoring will be at a regional level, to enable us to continue to compare performance across regions and provide a reputational incentive. At times, the focus of our monitoring could vary, for example by train operator or be aggregated to the GB level. The monitoring focus of each measure is described in the annex to this technical consultation, which describes each measures proposed in this technical consultation.

Responding to this consultation

1.12 We welcome views on the proposals set out in this technical consultation by **5pm on Friday 30 September 2022**.

Consultation questions

This document sets out the success and supporting measures we plan to use to hold the infrastructure manager to account in CP7, across a range of outcome areas.

- Do you have views on the measures we are proposing for each outcome area?
- Are there other measures we should consider?
- Are there other outcome areas that we should include in the CP7 outcomes framework?

1.13 Responses should be sent by email to: PR23@ORR.gov.uk or by post to: ORR consultation: PR23 – CP7 outcome measures, Office of Rail and Road, 25 Cabot Square, London E14 4QZ. In addition to the consultation questions we have set out in this document, we also invite any general feedback on our proposals. We ask that, wherever possible, you submit your response via email.

1.14 ORR has actively considered the needs of blind and partially sighted people in accessing this document in PDF format. The text is available in full on the ORR website and may be freely downloaded. Individuals and organisations can use free Adobe Reader accessibility features or screen readers to read the contents of this document. If you need this document in a different format such as large print, easy read, audio recording or braille, please contact our Public Correspondence Team via:

- email: webteam@orr.gov.uk
- telephone: 020 7282 2000
- postal address: ORR consultation: PR23 - CP7 outcome measures, Office of Rail and Road, 25 Cabot Square, London, E14 4QZ.

1.15 We plan to publish all responses to this consultation on our website. Should you wish for any information in your response to be treated as confidential, please be aware that this may be subject to publication, or release to other parties or to

disclosure, in accordance with the access to information regimes. These regimes are primarily the Freedom of Information Act 2000 (FOIA), the General Data Protection Regulation (GDPR,) the Data Protection Act 2018 (DPA) and the Environmental Information Regulations 2004.

- 1.16 If you are seeking to make a response in confidence, we would also be grateful if you would annex any confidential information, or provide a non-confidential summary, so that we can publish the non-confidential aspects of your response.
- 1.17 We also welcome further conversations with operators, funders, and other stakeholders at any point before the consultation closes. We expect to publish our conclusions to this technical consultation in December 2022. This will then feed into our draft and final determinations for PR23 next year.

2. Introduction

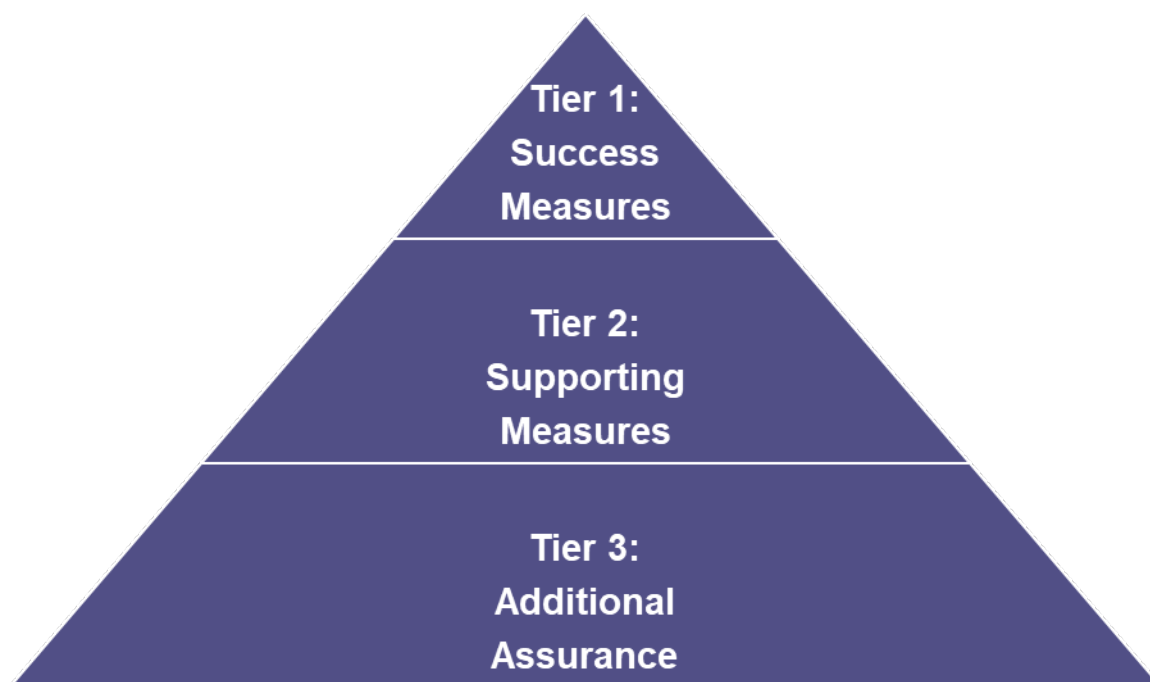
- 2.1 One of our key roles as the Office of Rail and Road (ORR) is to hold Network Rail to account for its management of its rail network in Great Britain (GB). As part of this, we monitor how Network Rail operates the network to keep trains running on time and maintains the safety and condition of the infrastructure.
- 2.2 The UK Government is currently consulting, as part of its rail reform programme, on legislation to create a new body, Great British Railways (GBR). This body is intended to incorporate Network Rail's rail infrastructure responsibilities. Accordingly, where we refer to 'infrastructure manager' in this consultation, we are referring – as the context requires – to either Network Rail (as it is today) or GBR (after it assumes responsibility from Network Rail).
- 2.3 Our outcomes framework will set the outcome requirements that the infrastructure manager needs to deliver for the funding it receives in CP7. It will also be one of our key tools for monitoring compliance against Network Rail's [network licence](#).
- 2.4 This technical consultation sets out the proposed measures that we will use as part of the outcomes framework to monitor the infrastructure manager's performance in CP7. These measures cover several outcome areas, including those linked to the objectives we set out in our [PR23 launch letter](#):
- (a) **safety**: the rail network must be maintained in a safe condition for all of its users, workers and the public;
 - (b) **performance**: the railway must be customer focused, making effective use of its capacity to deliver passenger and freight services that are punctual and reliable;
 - (c) **asset sustainability**: assets must be planned and managed to deliver their greatest value over the course of their operational lives; and
 - (d) **efficiency**: the infrastructure manager must be subject to stretching but realistic efficiency targets.
- 2.5 We also consider other important outcome areas, such as environmental sustainability and accessibility.
- 2.6 Alongside this consultation we have published [a wider consultation wider PR23 consultation on outcomes, infrastructure performance and managing change](#). This

provides more detail on the structure of the outcomes framework and how we will use it to hold the infrastructure manager to account in CP7. We have also published our [Guidance to Network Rail on the preparation of its Strategic Business Plan \(SBP\)](#), which forms part of our work to determine the level of funding the infrastructure manager should receive, and what it needs to deliver for this funding.

CP7 outcomes framework

2.7 One of the proposals in our wider consultation is to use a tiered outcomes framework in CP7, as illustrated in the below diagram.

Figure 2.1 Proposed tiering of the outcomes framework for CP7



2.8 Tier 1 of the outcomes framework is made up of a small number of top-tier success measures. These will be the headline indicators we will use to publicly hold the infrastructure manager to account.

2.9 To provide a more holistic view of performance we are also proposing to specify a basket of supporting measures that the infrastructure manager should publicly report performance against in CP7.

2.10 We will also use a range of information to monitor compliance with the Network Licence during CP7 that is not captured in the success and supporting measures. Aligned with our general principles of being risk based and proportionate in our

approach to monitoring, we are not proposing to specify these additional assurance requirements as part of the periodic review process. Instead, we will use our ongoing processes and engagement with the infrastructure manager to identify these information requirements on an ongoing basis, before and throughout CP7. This is so we focus our monitoring where it adds the greatest value. Although we are not planning to specify these measures as part of PR23, we have highlighted some areas in the document where we are considering additional assurance related to an area of increased, or changed focus, compared with CP6.

Using the outcomes framework to monitor performance

2.11 We have set out proposals for how we will use the outcomes framework to monitor the infrastructure manager’s performance in our consultation on the proposed regulatory framework. This includes how we will use success measures to set an expectation of the level of performance to be delivered by the infrastructure manager in our final determination. The key points from our proposals are summarised below.

Table 2.1 Summary – how we will use the outcomes framework to monitor performance

Framework Measure	How we will use it to monitor performance
Tier 1: Success measures	<ul style="list-style-type: none"> • We will set a baseline trajectory in our determination, by assessing the infrastructure manager’s planned forecasts for each success measure. • We will publicly report performance against the trajectory for each measure to provide a reputational incentive. • A robust change control process will be applied to allow baseline trajectories to be updated where there is a major change in circumstances. ORR will have an approval role.
Tier 2: Supporting measures	<ul style="list-style-type: none"> • Network Rail will publish its forecasts for each supporting measure in its annual delivery plans. • Network Rail will publicly report on performance against these forecasts and we will also use this information to support our public reporting. • Network Rail will have flexibility to change supporting measure forecasts using internal change control. ORR might choose to review Network Rail’s internal change control processes to determine if it is considering wider impacts, funder requirements and stakeholder views.

Framework Measure	How we will use it to monitor performance
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- | | |
|---------------------------------|--|
| Tier 3:
Additional assurance | <ul style="list-style-type: none"> • Additional assurance data and information requirements will be defined on an ongoing basis, outside the PR23 process. • Depending on the type of information required, Network Rail may set forecasts for these measures. • ORR may use this information to facilitate its assessment of Network Rail's licence compliance and public reporting. |
|---------------------------------|--|

Wider context

- 2.12 The high level output specifications (HLOSs) for England & Wales and Scotland will set out the high level outcomes that the UK and Scottish Governments want from the infrastructure manager in return for its funding. The HLOSs for England & Wales and Scotland are expected in Autumn 2022. We expect these will include high level performance requirements, recognising that each funder might take a different approach.
- 2.13 As part of our PR23 work next year, we will determine the outcomes that the infrastructure manager should deliver. These outcomes will be aligned to each government's HLOS requirements within the funding available and take account of our assessment of the infrastructure manager's SBP. Where governments do not set detailed requirements across all areas, it is our role to make sure there is clarity about what the infrastructure manager should deliver for the funding provided through PR23.
- 2.14 We plan to continue setting outcome measures on a regional basis, in the PR23 settlements for each region and the System Operator (SO). More information on our proposals for how we structure the PR23 settlements and how we plan to hold the infrastructure manager to account can be found in our accompanying consultation on outcomes, infrastructure performance and managing change
- 2.15 As we highlighted in our [PR23 launch letter](#), and our [letter updating on PR23 and our work on rail reform](#) that accompanies this consultation, we are in a period of change in the rail sector. The UK Government is progressing its Williams-Shapps Plan for Rail (the Plan for Rail), an ambitious programme seeking to deliver better outcomes and greater value for funders and railways users. There have been significant changes in the national passenger operation contracts in England & Wales. In Scotland, the transfer of the ScotRail franchise into the public sector took place in April 2022.

3. Health and safety

- 3.1 As stated in our latest [Annual report of health and safety on Britain's railways](#) published earlier this month, Britain's railway remains one of the safest in Europe. However, maintaining this will require constant vigilance. Given its size and scale within the industry, it is vital that the infrastructure manager continues to evidence rigorous safety standards and risk mitigation to keep rail workers, users and the general public safe.
- 3.2 ORR has a range of safety enforcement powers under the Health and Safety at Work etc. Act 1974, which is the foundation of how we regulate Network Rail for health and safety. This approach is different to how we:
 - (a) hold Network Rail to account against the requirements in its network licence (including for delivery of outcomes in CP7); or
 - (b) expect to hold GBR to account under its licence.
- 3.3 Given this context, we are not proposing any CP7 success measures for health and safety and will therefore not set expected levels of performance. This is to avoid confusion between the infrastructure manager's delivery of CP7 outcomes and compliance with health and safety legislation.
- 3.4 We have included current Network Rail safety measures as supporting measures in areas such as fatalities and risk reduction. We will focus our monitoring of these measures at both a regional and Great Britain-wide level.

Table 3.1 Health and safety – proposed CP7 outcomes framework

Tier	Measure
1: Success measures	<ul style="list-style-type: none"> • None proposed
2: Supporting measures	<ul style="list-style-type: none"> • Fatalities and Weighted Injuries (FWI) for workforce, passengers and the public • Train Accident Risk Reduction (TARR) • Personal Accountability for Safety (PAFS)

- 3.5 We are not defining additional assurance measures as part of the periodic review process. However, we are planning to work with Network Rail to agree how we will use additional assurance information to monitor its capability to manage safety during the transition to GBR.

4. Train performance

- 4.1 Railway users (passengers and freight customers) want trains that are reliable and on time. The infrastructure manager plays a key role in delivering a reliable, punctual train service. As such, train performance will continue to be a key outcome area in CP7. Train performance is broadly made up of three components:
- (a) punctuality – whether train ran on time;
 - (b) reliability – whether a train ran for its full journey or was cancelled (or ran only part of its journey); and
 - (c) delay – how much delay was experienced by railway users.
- 4.2 Whilst there are several potential measures we can use, there is no single train performance measure that provides the complete balance between the above components in a simple to understand measure. Our proposed success and supporting measures for train performance need to provide a balance.

Passenger train performance

- 4.3 We are proposing to use regional ‘On Time’ (train punctuality to the minute at station stops) and ‘Cancellations’ (trains which did not run or call at all scheduled station stops) as the passenger train performance success measures for CP7. These are easily understandable cross-industry measures. On Time can be disaggregated by region and we are working with Network Rail to agree the methodology to disaggregate Cancellations by region for CP7.
- 4.4 We are planning to hold the infrastructure manager’s regions to account for their performance against each of these train performance measures. Recognising the SO’s current role in supporting the interests of national passenger operators (currently CrossCountry and Caledonian Sleeper), we will hold it to account by setting the performance requirements it should deliver for these operators.
- 4.5 Supporting measures will help to provide a balance across the three components of train performance mentioned above. We propose to use:
- (a) Average Passenger Lateness (APL) and Delay minutes per 100km of train travel help provide further insights on delays to passengers. They also provide clarity on accountabilities of all parties and the infrastructure manager’s delivery to all train operators.

(b) Performance management maturity is a qualitative measure intended to monitor the capability of the infrastructure manager to understand and improve train performance.

4.6 Overall, the basket of measures proposed above together with additional assurance will ensure a continued focus on maximising punctuality and reliability, and minimising delays, whilst supporting the understanding of the causes of delay and assuring delivery across different market sectors (such as commuter, long distance and regional).

4.7 We recognise that the infrastructure manager and train operators will use additional measures of train performance to reflect local priorities.

Table 4.1 Passenger train performance – proposed CP7 outcomes framework

Tier	Measure
1: Success measures	<ul style="list-style-type: none"> • On Time • Cancellations
2: Supporting measures	<ul style="list-style-type: none"> • Average Passenger Lateness (APL) • Delay minutes per 100km train travel (track/train split) • Performance management maturity

Freight train performance

4.8 In CP6 we use the Freight Delivery Metric (FDM) as our primary measure to hold Network Rail to account for Freight Train Performance. FDM measures the percentage of commercial freight services that arrive at their planned destination within 15 minutes of their booked arrival time, or with less than 15 minutes of delay caused by Network Rail or another operator that is not a commercial freight operator. FDM can be presented at a national level or by region, which is commonly referred to as the Freight Delivery Metric – Regions (FDM-R).

4.9 We have some concerns that FDM has not been widely used in all Network Rail regions during CP6. This may be because it is difficult to interpret and explain due to the way it is presented. For example, a FDM score of 94% does not mean that 94% of commercial freight services arrived at their planned destination within 15 minutes of their booked time. Any services that were delayed by the operator running the service or by another commercial freight operator by 15 minutes or more (but not delayed by Network Rail or another operator that is not a

commercial freight operator by 15 minutes or more) will be counted within the 94% as a FDM ‘success’.

- 4.10 We are proposing to switch FDM to a new measure, Freight Cancellations and Lateness (FCaL). The underlying data and approach to calculating FCaL is aligned with FDM, however FCaL is presented as the complement of FDM (FCaL = 100% - FDM). Although this only changes how the measure is presented, there are benefits of FCaL compared to FDM:
- (a) the inclusions of cancellations and lateness in the name provides a better description of what is being measured, compared to FDM; and
 - (b) the link to freight cancellations is clearer, as freight cancellations is a subset of FCaL.
- 4.11 We propose to hold each region to account using FCaL presented at a regional level in CP7. Recognising the SO’s current role, supporting delivery of train performance to freight operators, we would hold it to account for FCaL performance at a national level.
- 4.12 Initial feedback from engagement with funders, Network Rail regions and freight operators on the proposal to use FCaL in place of FDM has been mixed. Whilst some stakeholders agreed that FCaL is more intuitive and is easier to understand than FDM, other stakeholders stated a preference to retain the continuity of the FDM presentation. **We welcome views on the proposed use of FCaL in place of FDM.**
- 4.13 We have included ‘Cancellations’ and ‘Arrivals to Fifteen’ (A2F) as supporting measures to provide more detail on the causes of FCaL.

Table 4.2 Freight train performance – proposed CP7 outcomes framework

Tier	Measure
1: Success measures	<ul style="list-style-type: none"> • Freight Cancellations and Lateness (FCaL)
2: Supporting measures	<ul style="list-style-type: none"> • Freight cancellations • Arrivals to Fifteen (A2F)

5. Asset sustainability

- 5.1 The infrastructure manager needs to plan and deliver sustainable maintenance and renewal of its assets, to maintain the long-term efficiency and performance of the network. Assets should be managed to deliver the greatest value over the course of their operational lives considering reasonably foreseeable future demand for railway services.
- 5.2 Since CP5 we have used the Composite Sustainability Index (CSI), with an array of additional measures to assess Network Rail's performance in managing the long-term sustainability of its infrastructure assets. CSI is an aggregated region level measure of sustainability. It looks at changing asset life by modelling patterns of degradation and improvement from interventions.
- 5.3 CSI allows us to monitor whether the infrastructure manager can 'sustain' current asset performance on the railway in future control periods. It also indicates if planned renewals work is consistent with minimising the whole-life cost of the railway. It measures the 'remaining asset value' on the network and whether this remains stable over time.
- 5.4 We are proposing to continue to use CSI as the headline success measure for asset sustainability in CP7. However, it is a slow-moving measure. It is reported annually and any forecast relates to the end of each control period. As such, we propose supporting measures on how well the infrastructure manager is maintaining the condition and performance of the assets which can be tracked more frequently than CSI. This includes the Composite Reliability Index (CRI), which provides a shorter-term assessment of asset condition and performance.
- 5.5 Other supporting measures include the infrastructure manager's delivery against its plan for renewals (effective volumes) and maintenance. We have also identified further supporting measures of the infrastructure manager's delivery against plan, which are related to issues we have previously raised with Network Rail, such as structures examinations and assessments.
- 5.6 Robust and accurate asset data underpins good practice asset management and needs to be maintained during the transition to GBR. We are therefore planning to introduce an asset data quality supporting measure for CP7, which we will work with Network Rail to develop.
- 5.7 We are also considering our approach to monitoring how the infrastructure manager maintains staff competence during rail reform. We will work with Network

Rail on this issue as it develops its SBP, to determine if there are appropriate additional assurance or supporting measures required in this area.

5.8 Some of these supporting measures are not currently fully defined. We will engage with Network Rail throughout the PR23 programme to develop these measures.

Table 5.1 Asset sustainability – proposed CP7 outcomes framework

Tier	Measure
1: Success measures	<ul style="list-style-type: none"> • Composite Sustainability Index (CSI)
2: Supporting measures	<ul style="list-style-type: none"> • Composite Reliability Index (CRI) • Renewals: effective volumes • Asset data quality • Range of measures focused on high priority areas: <ul style="list-style-type: none"> ○ Lineside vegetation ○ Examinations – structures, earthworks, buildings ○ Civils inspections ○ Maintenance compliance ○ Resilience and adaptation

6. Efficiency and financial performance

- 6.1 We monitor efficiency and financial performance to ensure value for money, to support the delivery of efficiency improvements and to reduce the cost of the railway for passengers and taxpayers. We are not proposing significant changes from our CP6 approach for monitoring Network Rail's efficiency and financial performance (which represented a step change from our CP5 approach and has been working well).
- 6.2 The success measure we are proposing for CP7 is the Financial Performance Measure (FPM), which we are currently using in CP6. FPM compares actual income and expenditure to a 'post-efficient' baseline (such as a budget), adjusted for delivery of outputs and covers more than just Operations, Support, Maintenance and Renewal (OSMR) costs. It covers most items of Network Rail's income and expenditure but excludes some that are not as controllable such as network grant, fixed track access charges, traction electricity income and costs, and business rates.
- 6.3 All other things being equal, if the expected efficiency is achieved, the target FPM is equal to zero. Outperformance is achieved when more work is delivered for the agreed cost or the work is delivered at a lower cost than was agreed (underperformance implies the opposite scenario(s)).
- 6.4 We are proposing that financial performance will continue to be augmented with efficiency supporting measures which, while related to FPM, are not the same. Efficiency measures improvements made to economy, productivity and effectiveness (see [CP6 regulatory accounting guidelines](#)) over time for core business processes (OSMR) only. Efficiency can be expressed as a monetary value that should be saved in each year of a control period under consideration, or as a percentage change.
- 6.5 As supporting measures, we intend to continue to monitor Network Rail's reporting of the drivers of regions' cost changes. Network Rail uses a reporting tool called 'fishbones' to disaggregate its reporting by types of efficiency, tailwinds, headwinds, scope changes and inflationary effects. This will be accompanied by more detailed supporting information of individual efficiency initiatives. We will also assess leading indicators of whether the infrastructure manager is well positioned to deliver future efficiencies, for example in areas such as its booking of disruptive

access, its workbank planning and its maintenance headcount. These measures are explained further in our CP6 regulatory accounting guidelines.

6.6 The Plan for Rail will create new responsibilities for ORR. These include for us to report on the employment costs and productivity of the rail industry, and to assess the financial performance of GBR as part of our holding to account of this new body. We intend to report on industry employment costs later in 2022 and to start reporting on industry productivity in 2023. Our approach for monitoring GBR’s financial performance will likely also evolve from our current approach for monitoring Network Rail to take account of GBR’s wider responsibilities.

Table 6.1 Efficiency and financial performance – proposed CP7 outcomes framework

Tier	Measure
1: Success measures	<ul style="list-style-type: none"> • Financial Performance Measure (FPM)
2: Supporting measures	<ul style="list-style-type: none"> • Efficiency and fishbone analysis of cost drivers • Leading indicators of efficient delivery <ul style="list-style-type: none"> ○ Disruptive access ○ Workbank planning ○ Maintenance headcount ○ Efficiency plan quality

7. Environmental sustainability

- 7.1 We are increasing our focus on environmental sustainability in CP7. This is to reflect the contribution that rail must make to improve environmental performance, including net zero targets in Scotland (by 2045) and the rest of GB (by 2050).
- 7.2 We are proposing three success measures for monitoring environmental sustainability in CP7. The first is the One Planet Index (OPI), which is a composite measure made up of indicators grouped into six categories: waste, water, energy, refrigerants, materials and business travel. The other success measures focus on carbon emissions reduction and managing biodiversity.
- 7.3 Whilst the OPI captures carbon emissions, it does not include any measures covering biodiversity. We propose to use the Biodiversity Unit as a success measure to fill this gap. It assesses an area's value to wildlife, using habitat features to calculate a biodiversity value. This will help to monitor progress against Network Rail's objective of 'no net biodiversity loss by 2024' and 'net gain by 2035' on the railway estate.
- 7.4 There are three categories of carbon emissions covering scope 1, 2 and 3 emissions included in our proposed CP7 measures. They range from emissions directly related to the infrastructure manager's activities through to indirect emissions from the supply chain. Scope 1 and 2 emissions are already reported as part of CP6 reporting and we propose that this is a success measure for CP7.
- 7.5 We propose to use scope 3 carbon emissions as a supporting measure. In addition, we propose to use carbon emissions: non-traction energy use and a measure of air quality at stations as supporting measures.
- 7.6 We will engage closely with Network Rail throughout PR23 to ensure that each of the measures is clearly defined, with robust data capture and reporting processes being put into place. We will take a pragmatic approach to agreeing trajectories, reflecting other government reporting requirements required by Network Rail, to drive the appropriate behaviours and ensure Network Rail's decarbonisation strategy is in line with government targets.

Table 7.1 Environmental sustainability – proposed CP7 outcomes framework

Tier	Measure
1: Success measures	<ul style="list-style-type: none">• One Planet Index (OPI)• Biodiversity Unit• Carbon emissions scope 1 and 2
2: Supporting measures	<ul style="list-style-type: none">• Carbon emissions: non-traction energy use• Carbon emissions scope 3• Air quality

8. Customer satisfaction

- 8.1 Consistent with CP6 and the focus we place on positive passenger experience, we propose to include passenger satisfaction survey results as a supporting measure. In CP6 we monitored passenger satisfaction with both the Network Rail managed stations and overall journeys and we anticipate a continued focus on these type of passenger experiences.
- 8.2 Passenger satisfaction reporting was previously based on data from the National Rail Passenger Survey (NRPS). Transport Focus paused this survey during 2020 because of the impact of the pandemic on passenger volumes. Therefore, since 2021-22, reporting has been based on data from the Wavelength survey that is procured by Department for Transport (DfT). DfT is now procuring a new customer survey, bringing together NRPS and Wavelength, to provide a single source of customer insight for the rail industry. We currently anticipate reporting in CP7 will be based on data from this new survey.
- 8.3 The creation of GBR may further change commercial arrangements for many passenger operators. Therefore, as GBR potentially becomes accountable for the broader passenger journey experience then we will engage with DfT to consider whether it is appropriate to promote satisfaction to a headline success measure at a point during CP7. We would also consider the scope of the measure, given the increased accountability of GBR for delivery to end-users compared with Network Rail’s influence as infrastructure manager.

Table 8.1 Customer satisfaction – proposed CP7 outcomes framework

Tier	Measure
1: Success measures	<ul style="list-style-type: none">• None proposed
2: Supporting measures	<ul style="list-style-type: none">• Passenger satisfaction of overall journey and experience at Network Rail managed stations

9. System operation

- 9.1 Good system operation of the railway is vital. It means that network capacity is used efficiently, competing demands are balanced fairly, changes to the network are managed smoothly and timetables are dependable and well suited to customer needs. The infrastructure manager has primary responsibility for system operation of the network.
- 9.2 The system operation outcome area covers a range of strategic and operational activities. Overall, we want system operation activities to be completed to a robust standard and to the satisfaction of all stakeholders. This is summarised for two areas below.
- (a) **Timetable production:** Given the complex nature of some timetable changes, we want the infrastructure manager to demonstrate a robust approach to development and implementation of new timetables throughout CP7. The quality of the timetable implemented will impact all operators' performance and overall system performance.
 - (b) **Strategic projects:** We plan to focus on the quality of planning and delivery of projects where sub-optimal or delayed delivery could impact performance across all areas.
- 9.3 As outlined in our wider consultation on outcomes, infrastructure performance and managing change, we intend to have a specific settlement to use as the basis for holding the SO to account in CP7. This will include requirements reflecting system operation outcomes (in this chapter) and will also include requirements reflecting other outcome areas, where the SO has a key role, such as train performance for freight and national passenger operators.
- 9.4 However, the above areas do not lend themselves to quantitative measures. Therefore, we are keen to explore options to expand the range and type of measures used to reflect stakeholder outcomes.
- 9.5 We have provisionally considered whether we could expand the range of measures for system operation to include supporting measures where appropriate, supported by additional information. Supporting measures under active consideration include:

- (a) **timetable development competence:** adherence to the [Network Code](#) processes for timetable development; narrative reports to identify how positive stakeholder outcomes are achieved;
- (b) **delivery of strategic projects:** regular reporting of progress from the infrastructure manager against milestones and delivery of planned benefits; cost and resource use; and
- (c) **network access application management:** tracking access requests and subsequent appeals.

9.6 We will engage with Network Rail through the rest of PR23 to explore options and develop measures that fully reflect desired system operation outcomes.

Table 9.1 System operation – proposed CP7 outcomes framework

Tier	Measure
1: Success measures	<ul style="list-style-type: none"> • None proposed
2: Supporting measures	<ul style="list-style-type: none"> • Timetable development competence • Delivery of strategic projects • Network access application management

10. Freight growth

- 10.1 Freight growth on rail facilitates cost and energy efficient movement of large volumes of goods (particularly heavy goods) long distances across the country. It also promotes wider economic, environmental and social benefits.
- 10.2 Freight growth was highlighted in the Plan for Rail and the Scottish Government included a target in its HLOS for CP6. For CP7, we have proposed a supporting measure based on measuring freight growth. There may be an enhanced focus on freight growth within HLOSs that UK and Scottish Governments will publish later in 2022. As such, we may decide that freight growth should be a success measure within the final CP7 outcomes framework confirmed in our PR23 determination.
- 10.3 There is a risk that a ‘freight moved by weight’ measure may not reflect the full range of freight activity. For example, increases in freight activity of lighter goods may be masked by very small decreases in activity of heavier goods. To mitigate this, we propose to explore with Network Rail the use of alternative measures of rail freight activity. This should help us gain a broader view of freight movements on the rail network.

Table 10.1 Freight growth – proposed CP7 outcomes framework

Tier	Measure
1: Success measures	<ul style="list-style-type: none"> • None proposed
2: Supporting measures	<ul style="list-style-type: none"> • Freight net tonne kilometres moved • Alternative measures of rail freight activity

11. Network capability

- 11.1 Maintaining network capability is a requirement of Network Rail's network licence and the processes around changing it are set out in the [Network Code](#). The capability of the network is central to what Network Rail delivers to freight and passenger operators, who use a range of rolling stock and respond to changing patterns of demand.
- 11.2 We are not proposing any measures in the CP7 outcomes framework for network capability. However, we plan to closely monitor the infrastructure manager's approach to network capability through enhanced dashboard reporting and identify any improvements that can be made in this area. We will also continue to engage with train operators who raise concerns regarding network capability.

Table 11.1 Network capability – proposed CP7 outcomes framework

Tier	Measure
1: Success measures	<ul style="list-style-type: none">• None proposed
2: Supporting measures	<ul style="list-style-type: none">• None proposed

12. Network availability and possession management

- 12.1 Planned engineering works on the railway cause disruption to both train operators and end-users. However, the infrastructure manager needs sufficient access to the infrastructure to efficiently maintain, renew and enhance the infrastructure. The aim of a network availability measure is to provide sufficient incentives for the infrastructure manager to plan efficiently, considering these competing demands.
- 12.2 If the infrastructure manager seeks more disruptive access to undertake its engineering works, it must demonstrate that the possession is well planned and is being used efficiently. It is also important that the infrastructure manager plans these possessions within an appropriate timeframe to enable customers and end-users to plan ahead.
- 12.3 We did not set a specific outcome measure in CP6 as we determined that there was no single metric that appropriately captured this requirement. Instead, our approach was to monitor Network Rail's performance using a suite of measures proposed by Network Rail in its draft determination response. These measurements were linked to:
- (a) access disputes;
 - (b) late notice changes to possessions;
 - (c) annual survey results; and
 - (d) Schedule 4 (compensation for planned disruption to train operators).
- 12.4 In April 2022, we published a [consultation regarding our review of the Schedule 4 possessions regime and Schedule 8 train performance regime](#). As set out in that consultation, for CP7, we are considering a change to our reporting requirements in light of our proposals to give operators the option to opt-out of the Schedule 4 regime. This opt-out has the potential to reduce the financial incentives on Network Rail to plan possessions efficiently and minimise disruption to end-users.
- 12.5 Consistent with our Schedule 4 consultation, we propose additional levels of reporting on possession trends, notifications as well as late possession changes and cancellations. We expect most of the results of this regime to be reported publicly. This should provide an appropriate reputational incentive and

counterbalance to the potential loss of financial incentives on the infrastructure manager to plan possessions efficiently.

- 12.6 We are also planning to monitor trends in the number of possessions taken by the infrastructure manager and engage with the infrastructure manager to understand any significant variances.
- 12.7 We commissioned the independent reporter (Guttridge Haskins and Davey, GHD) to complete [a review of possession efficiency in April 2021](#). We will continue to monitor Network Rail’s delivery against the recommendations of this report and consider if further detailed reviews are required in the next control period.
- 12.8 We are planning the above activities to monitor network availability as part of tier three of the CP7 outcomes framework – additional assurance. Therefore, we are not proposing any success or supporting measures for network availability and possessions management in CP7.
- 12.9 We will continue to engage with funders and stakeholders, such as passenger train and freight/open access operators throughout PR23 to gauge if this approach is effective and to consider any changes required as a result of rail reform.

Table 12.1 Network availability and possession management – proposed CP7 outcomes framework

Tier	Measure
1: Success measures	<ul style="list-style-type: none"> • None proposed
2: Supporting measures	<ul style="list-style-type: none"> • None proposed

13. Accessibility

- 13.1 The rail network should be open to everyone, irrespective of disability. In this regard the infrastructure manager has an important role to play in delivering improvements and providing assistance for people with reduced mobility or disabilities to use railway stations.
- 13.2 We expect all station enhancements and renewals to be compliant with accessibility requirements. We will continue to assess compliance with the [National Technical Specification Notice \(NTSN\) for Persons with Reduced Mobility \(PRM\)](#) as part of our authorisation role. We are reviewing our approach to ensuring compliance with the [Code of Practice for Design Standards for Accessible Railway Stations](#) for station renewals projects in parallel with the DfT review of the code.
- 13.3 We do not currently set quantified measures for monitoring accessibility of the network and we propose to maintain that approach. Our focus will be on securing regulatory compliance with accessibility standards for all infrastructure works, alongside ensuring accurate information is provided to passengers about the accessibility features of stations. This will be covered as part of our additional assurance work.

Table 13.1 Accessibility – proposed CP7 outcomes framework

Tier	Measure
1: Success measures	<ul style="list-style-type: none">• None proposed
2: Supporting measures	<ul style="list-style-type: none">• None proposed

Annex A: Description of success and supporting measures

Table A1: Description of success and supporting measures in our proposed CP7 outcomes framework

Outcome area	Measure	Tier	Description	Monitoring focus
Health and safety	Fatalities and Weighted Injuries (FWI) for workforce, passengers and public	Supporting	A weighted measure of fatalities and non-fatal injuries.	GB, region
Health and safety	Train Accident Risk Reduction (TARR)	Supporting	Achievement of the key risk reduction activities planned in the year. The measure is made up of milestone and volume targets, both of which have different achievement weightings.	GB, region
Health and safety	Personal Accountability for Safety (PAFS)	Supporting	The number of breaches in 'life saving rules' and high potential events. It is a measure of how Network Rail is improving culture and behaviours to help keep staff safe.	GB, region

Outcome area	Measure	Tier	Description	Monitoring focus
Train performance: passenger	On Time	Success	The percentage of recorded station stops arrived at early or less than one minute after the scheduled arrival time.	Region, national passenger operator
Train performance: passenger	Cancellations	Success	The percentage of planned trains which either did not run their full planned journey or did not call at all their planned station stops. The measure is a score which weights full cancellations as one and part cancellations as half.	Region, national passenger operator
Train performance: passenger	Average Passenger Lateness (APL)	Supporting	The average lateness of a passenger as they alight from their train. The measure reflects the impact of train punctuality and cancelled trains on passenger lateness and is weighted by the number of passengers expected to alight at stations.	GB
Train performance: passenger	Delay minutes per 100 kilometres train travel (track/train split)	Supporting	The attributed delay minutes to in-service passenger trains from incidents occurring in each region per 100 train kilometres. This is disaggregated to two measures, for delays attributed to Network Rail or train operators.	Region
Train performance: passenger	Performance management maturity	Supporting	To be developed	Region

Outcome area	Measure	Tier	Description	Monitoring focus
Train performance: freight	Freight Cancellations and Lateness (FCaL)	Success	<p>The percentage of commercial freight services that are either:</p> <ul style="list-style-type: none"> • cancelled by: <ul style="list-style-type: none"> ○ the infrastructure manager; or ○ another operator that is not a commercial freight operator; or • arrive at their planned destination 15 minutes or more after their booked arrival time with 15 minutes or more delay caused by: <ul style="list-style-type: none"> ○ the infrastructure manager; or ○ another operator that is not a commercial freight operator. 	GB, region
Train performance: freight	Freight cancellations	Supporting	The percentage of commercial freight services that are cancelled by the infrastructure manager or another operator that is not a commercial freight operator.	GB, region
Train performance: freight	Arrivals to fifteen (A2F)	Supporting	The percentage of commercial freight services ran that arrive at their planned destination within 15 minutes of their booked arrival time.	GB

Outcome area	Measure	Tier	Description	Monitoring focus
Asset sustainability	Composite Sustainability Index (CSI)	Success	The percentage improvement of asset sustainability compared to the end of control period 4. Depending on the asset type, asset sustainability is measured either by remaining life of the asset or by asset condition score and is weighted by the replacement value of the asset.	Region
Asset sustainability	Composite Reliability Index (CRI)	Supporting	An index providing an assessment of the short-term condition and performance of infrastructure assets (track, signalling, points, electrification, telecoms, buildings, structures and earthworks) by monitoring the overall improvement in reliability since the start of the control period. It measures the number of Service Affecting Failures (SAFs) relative to the end of the control period baseline and is weighted by route criticality from 1-5.	Region
Asset sustainability	Effective volumes	Supporting	A weighted aggregation of renewals volumes, where the weighting distinguishes between activity types and their different impact on asset life. Effective volumes of one asset type cannot be compared to another due to the different units and scales of measurements.	Region
Asset sustainability	Lineside vegetation	Supporting	Delivery of lineside vegetation schemes against plan	Region

Outcome area	Measure	Tier	Description	Monitoring focus
Asset sustainability	Examinations – structures, earthworks, buildings	Supporting	Delivery of examinations against plan	Region
Asset sustainability	Civils inspections	Supporting	Delivery of civils inspections against plan	Region
Asset sustainability	Maintenance compliance	Supporting	Delivery of maintenance against plan	Region
Asset sustainability	Resilience and adaptation	Supporting	Delivery of resilience and adaptation schemes against plan	Region
Asset sustainability	Asset data quality	Supporting	To be developed	To be developed

Outcome area	Measure	Tier	Description	Monitoring focus
Efficiency and financial performance	Financial Performance Measure (FPM)	Success	Compares actual income and expenditure to a 'post-efficient' baseline (such as budget), adjusted for delivery of outputs and covers more than just operations, support, maintenance and renewals. It covers most items of Network Rail's income and expenditure but excludes some that are not as controllable such as network grant, fixed track access charges, traction electricity income and costs, and business rates. All other things being equal, if the expected efficiency is achieved, the target FPM is equal to zero. Outperformance is achieved when more work is delivered for the agreed cost or the work is delivered at a lower cost than was agreed (underperformance implies the opposite scenario(s)).	Region
Efficiency and financial performance	Efficiency and fishbone analysis of cost drivers	Supporting	Providing insight into the drivers of changes to costs over time including efficiencies, headwinds, tailwinds, and input price effects.	Region
Efficiency and financial performance	Disruptive access	Supporting	Access booked as a percentage of access required.	Region

Outcome area	Measure	Tier	Description	Monitoring focus
Efficiency and financial performance	Workbank planning	Supporting	Work authorised in the system, renewals remits issues, workbank stability.	Region
Efficiency and financial performance	Maintenance headcount	Supporting	Current headcount as a percentage of required headcount.	Region
Efficiency and financial performance	Efficiency plan quality	Supporting	Red/amber/green rating of the quality of efficiency plans (one year in advance).	Region
Environmental sustainability	One Planet Index (OPI)	Success	The environmental footprint associated with resource consumption across six material categories (waste, water, energy, refrigerants, materials and business travel) expressed as an equivalent to planet area needed to sustain the resource consumption. The ideal is no more than a “one planet economy”.	GB, region
Environmental sustainability	Biodiversity Unit	Success	The biodiversity metric is a habitat-based approach used to assess an area’s value to wildlife. The metric uses habitat features to calculate a biodiversity value.	GB, region

Outcome area	Measure	Tier	Description	Monitoring focus
Environmental sustainability	Carbon emissions scope 1 and 2	Success	Scope 1 emissions relate to direct emissions owned or controlled by an organisation. This could include emissions from owned or controlled boilers, generators or burning diesel, petrol or oil from fleet vehicles. Scope 2 emissions relate to indirect emissions which are a consequence of an organisation's activities but occur at sources which are not owned or controlled. For example, the consumption of purchased electricity, heat, steam and cooling.	GB, region
Environmental sustainability	Carbon emissions: non-traction energy use	Supporting	All scope 1 and scope 2 carbon emissions except those directly related to the operation of train services.	GB, region
Environmental sustainability	Carbon emissions scope 3	Supporting	Scope 3 emissions are all other indirect emissions (excluding from electricity purchased) from sources that an organisation does not own or control, including business travel, production and supply of goods, products and materials in the supply chain, waste and water.	GB, region
Environmental sustainability	Air quality	Supporting	Level of harmful pollutants at Network Rail's managed stations such as nitrogen dioxide and sulphur oxide.	GB, region

Outcome area	Measure	Tier	Description	Monitoring focus
Customer satisfaction	Passenger satisfaction of overall journey and experience at Network Rail managed stations	Supporting	The percentage of passengers surveyed who were satisfied with their overall journey and stations.	GB, region
System operation	Timetable development competence	Supporting	To be developed	To be developed
System operation	Delivery of strategic projects	Supporting	To be developed	To be developed
System operation	Network access application management	Supporting	To be developed	To be developed
Freight growth	Freight net tonne kilometres moved	Supporting	Measures the amount of freight moved on the railway network, taking into account the weight of the load and the distance carried.	GB, region
Freight growth	Alternative measures of rail freight activity	Supporting	To be developed	To be developed



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