

Office of Rail & Road and Network Rail

Review of Scotland Train Performance Measure (STPM)

#43687 Independent Reporter

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Glossary

Term	Description
BESR	Blanket Emergency Speed Restriction
BETA CAT/PAT	BETA CAT and PAT form part of Network Rail's operational procedures for mitigating risks and ensuring safety during extreme weather conditions. BETA CAT categorises adverse weather events based on their impact on railway operations and BETA PAT refers to the plan of action corresponding to the adverse weather categorisation.
BusinessObjects	A suite of tools that Network Rail use to report and analyse railway performance data
CP7	Control Period 7
DAPR	Delay Attribution Principles and Rules
HLOS	High Level Output Specification
MAA	Moving Annual Average
ORR	Office of Rail and Road
PowerBI	Software to analyse and visualise data
PIE	Performance Improvement Executive
PPM	Public Performance Measure
STPM	Scotland Train Performance Measure
TRUST	Train Running Under System TOPS – a system used for tracking train movements on Great Britain's rail network

1. Executive Summary

1.1 Purpose

The Scottish Ministers' High Level Output Specification (HLOS) for Control Period 7 – 2024- 2029 requires the outputs of the network to be maintained in such a manner as to enable ScotRail Trains Ltd. to meet a Public Performance Measure (PPM) target of 92.5%. The Scottish Government allows Network Rail and ScotRail Trains Ltd a specific derogation from the 92.5% target for trains where delays are caused by:

- the need for speed restrictions during periods of severe weather; or
- permitting connections from other late running trains or ferries.

ORR's final determination defines the name of this adjusted version of PPM as the Scotland Train Performance Measure (STPM) and is the primary focus of ORR's passenger train performance monitoring in Scotland.

The ScotRail Grant Agreement, which precedes the publication of the HLOS, defines this measure in name as PPM (with exclusions) and the STPM definition document, which succeeds the publication of the HLOS, was developed to explain how STPM is calculated and reported. This definition document was created by Network Rail Scotland and is signed by ScotRail.

Network Rail Scotland is monitoring STPM each railway period and has engaged with ORR and Transport Scotland to come to a technical specification.

The objective of the Independent Reporter review is to report on the technical specification of STPM and its implementation. The Independent Reporter also required to present a system reliability confidence grading based on the most up-to-date dataset during the commission and make any recommendations to Network Rail Scotland for improvement that would be required to achieve higher gradings.

1.2 Key Findings

We have concluded that the STPM process be scored a **B** on the reliability grading system as defined in Appendix A.4 (Sound textual records, procedures, investigations, or analysis properly documented but with minor shortcomings).

The definition outlined in the STPM definition document is robust and is being implemented appropriately by the performance team. The definition document and other documents provide evidence of sound procedures and analysis.

However, the lack of consistency in the wording of the definition in the Grant Agreement and the perceived error in the formula in the Grant Agreement is leading to differing levels of understanding of the metric in parts of the industry. The fact that there is no explanation as to what constitutes 'severe weather' in the HLOS is also causing ambiguity in parts of the industry. The presentation of PPM and STPM together in some of the observed reporting can also be confusing and negatively affect our understanding of good/bad performance.

A clear and consistent definition of STPM communicated effectively to all of Scotland's Railway would help the STPM process achieve an A grade.

1.3 Recommendations

The following table outlines out recommendations for improvement for the STPM metric.

Table 1: Table of Recommendations

Recommendation Number	ORR Reference	Recommendation to Network Rail	Intent & Benefits	Evidence of Implementation	Location in Text
1	SOW43687-1	Network Rail should seek agreement of the definition and calculation of Scotland Train Performance Measure (STPM) with all stakeholders. This definition should be signed off by Network Rail, Transport Scotland, Scottish Rail Holdings, ScotRail Trains and ORR and be consistent in wording across all industry documentation.	<p>As we have found a range of opinions on what should constitute as ‘severe weather’, we would encourage a discussion between the aforementioned stakeholders to discuss the current definition and potential amendments to it i.e. snow/wind/heat to get to a definition that is understood and accepted by all.</p> <p>This will deliver a clear understanding across all stakeholders of what is included in the metric and what is not.</p> <p>It will also offer the opportunity to ensure that the formula for calculating the measure is agreed amongst all parties and aligned between the Grant Agreement and the STPM definition document.</p>	<p>Definition document signed by all relevant stakeholders.</p> <p>Potential addendum to ScotRail Grant Agreement with updated formula.</p>	Section 4.2.1
2	SOW43687-2	Network Rail to create a bi-annual review cycle on the STPM definition document to ensure the reason codes used remain aligned with any future DAPR changes.	A bi-annual review cycle will capture all bi-annual changes in the Delay Attribution Principles and Rules (DAPR) and ensure the metric is up to date as per the agreed definition.	Updated definition document agreed bi-annually to reflect changes to the DAPR.	Sections 4.2.1 and 4.2.3

Recommendation Number	ORR Reference	Recommendation to Network Rail	Intent & Benefits	Evidence of Implementation	Location in Text
3	SOW43687-4	Annual review of the application of STPM exclusions by ORR to ensure it is being applied as defined.	A high-level annual audit of excludable events/delays would help to ensure the metric is working as intended by providing assurance that these align with the severity of the incidents and mitigate the risk of an increase of excludable events to meet STPM targets. We have not observed any evidence of this at present.	Annual statement produced by Network Rail containing all STPM exclusions provided to ORR.	Section 4.2.2
4	SOW43687-4	Where PPM and STPM are reported together, Network Rail and ScotRail to ensure that the metrics in the report are clearly defined and segregated if necessary to avoid confusion.	We have observed some instances where PPM and STPM are reported together in a way that can be confusing to those without a clear understanding of the difference.	Network Rail to seek agreement with ScotRail to update reporting to be clear on which metric is being used and why.	Section 4.2.3

1.4 Acknowledgements

The Independent Reporter Team would like to thank ORR, Network Rail, Transport Scotland and ScotRail staff for their assistance with this study.

2. Background

The High-Level Output Specification (HLOS) for Control Period 7¹ (2024–2029) requires that the outputs of the network will be maintained in such a manner as to enable ScotRail Trains Ltd. to meet a Public Performance Measure (PPM) target of 92.5% for every year of CP7.

However, the Scottish Government considers it appropriate to allow a derogation for trains where delays are caused by the need for speed restrictions during periods of severe weather, or trains have been delayed in order to permit connections from other late running trains or ferries.

The Office of Rail and Road (ORR) named this adjusted version of PPM (where trains are excluded according to these derogations) as the Scotland Train Performance Measure (STPM), to differentiate it from PPM which is still in use in Scotland and elsewhere in Great Britain.

Arup, supported by Winder Phillips Associates, has been appointed by the ORR and Network Rail under the Independent Reporter Framework to undertake a review of the STPM's technical specification and implementation and the extent to which STPM defined by Network Rail in the STPM definition document (2024) is consistent with the requirements of the ScotRail Grant Agreement (published 2022) and HLOS (published 2023). A full copy of the Statement of Works is included as Appendix A.3.

¹ Control Period 7 (CP7) in the UK railway industry refers to the five-year regulatory period from 2024 to 2029 during which Network Rail plans and delivers infrastructure investments, maintenance, and operational improvements, as overseen by the Office of Rail and Road (ORR).

3. Findings from STPM Desktop Study

As outlined in the scope of this study, we are required to assess the STPM definition document and its use within Network Rail and provide assurance that the definition in this document is consistent with the requirements of Scottish Ministers' HLOS and relevant grant agreements. The following sections explain how ScotRail Trains, Transport Scotland and Network Rail respectively address the STPM metric.

3.1 Scotland Train Performance Measure Definition Document

The STPM definition document was produced and agreed by Network Rail Scotland and ScotRail performance teams and outlines the definition and process for calculating STPM, using well defined and established attribution principles. This report will assess how this definition document is being implemented in Network Rail and how it relates to other industry documents.

The document explains that *“STPM follows the principal of PPM but with additional allowances made for two specific scenarios – firstly allowance is made for trains which have been late and/or cancelled due to speed restrictions during severe weather (rain) and allowance is also made for services which are held to allow for connecting train or ferry services.”*

The document goes on to explain how STPM is reported and calculated².

3.2 Scottish Ministers' High Level Output Specification (HLOS) for CP7

The HLOS is a document produced by the Scottish Ministers that outlines the strategic priorities and required outputs for Scotland's rail network during a specific funding period. For Control Period 7 (2024–2029), the HLOS sets a key performance target for train operations:

“3.7 Scottish Ministers require that the outputs of the network will be maintained in such a manner as to enable ScotRail Trains Ltd. to meet a Public Performance Measure (PPM) target of 92.5% for every year of CP7. The 92.5% PPM target is considered pragmatic and appropriate.

3.8 However, it is recognised that performance targets can, in some circumstances, create perverse incentives which act against the interest of passengers. Therefore, the Scottish Government considers it appropriate to allow Network Rail and ScotRail Trains Ltd. a specific derogation from the 92.5% target for trains where delays are caused by the need for speed restrictions during periods of severe weather, or trains have been delayed in order to permit connections from other late running trains or ferries.”³

To accommodate these exceptions, an adjusted version of the PPM was introduced as the main metric for train performance monitoring in Scotland. The aim is to ensure that the performance metric fairly reflects external challenges while maintaining high service standards.

We note that the above definition refers only to ScotRail Trains Ltd achieve a PPM of 92.5% and that no other Train Operating Company will be measured against this target or the STPM derogation of this target.

3.3 Office of Rail and Road's (ORR) Final Determination

ORR's Final Determination for Control Period 7¹ (2024–2029) outlines its assessment and expectations for the rail network's performance, funding, and delivery during this period. For Scotland's train performance, ORR's determination requires compliance with the HLOS and states:

² Scotland Train Performance Measure Definition Document Control Period 7, Scotland's Railway, July 2024

³ <https://www.orr.gov.uk/sites/default/files/2023-10/14-pr23-final-determination-supporting-document-outcomes.pdf>

“As set out in the draft determination, given its prominence in the Scottish Ministers’ HLOS, the Scotland train performance measure will be the primary focus of our passenger train performance monitoring in Scotland. The Scotland train performance measure is an adjusted version of ScotRail PPM that is referenced in the Scottish Ministers’ HLOS. It is adjusted where delays are caused by the need for speed restrictions during periods of severe weather, or where trains have been delayed to permit connections from other late running trains or ferries. To clearly distinguish this measure from (non-adjusted) ScotRail PPM, we refer to it as the Scotland train performance measure.

3.32 Further engagement is needed with Network Rail Scotland and with Transport Scotland before the start of CP7 to clarify the exact definition of this measure and how it will be calculated.”⁴

ORR requires that the STPM be robust and effective as a performance metric.

3.4 ScotRail Grant Agreement

The ScotRail Grant Agreement for CP7¹ sets clear performance expectations for train operations in Scotland. In calculating PPM, the Grant Agreement states that ScotRail *“shall calculate a moving annual average of SRT’s performance in terms of PPM for the ScotRail Operation as a whole, and for each of the Sectors, in accordance with the following formula:*

$$[D - (B + C) - (E+F)] / D$$

***B** is the total number of Cancellations and Partial Cancellations of Passenger Services operated in that Reporting Period and the previous 12 Reporting Periods.*

***C** is the total number of non-Cancelled and non-Partially Cancelled Passenger Services operated in that Reporting Period, and the previous 12 Reporting Periods which arrived at scheduled destination, as determined by the Train Plan, five or more minutes late.*

***D** is the total number of Passenger Services scheduled to be operated in that Reporting Period and the previous 12 Reporting Periods.”*

***E** is the total number of Passenger Services directly affected by Severe Weather Speed Restrictions and Held Connections in that Reporting Period and the previous 12. **E** is the total number of Cancellations and Partial Cancellations of Passenger Services operated in that Reporting Period and the previous 12 Reporting Periods that have been attributed to X4 – Blanket Emergency Speed Restriction and specifically those have arisen as a direct result of the Carmont recommendations⁵ or due to a held connection.*

***F** is the total number of non-Cancelled and non-Partially Cancelled Passenger Services operated in that Reporting Period, and the previous 12 Reporting Periods which arrived at scheduled destination, as determined by the Train Plan, five or more minutes late and where the majority of their delay has been attributed to X4 – Blanket Emergency Speed Restriction and specifically those have arisen as a direct result of the Carmont recommendations or due to a held connection.*

We note that this latest version of the Grant Agreement was published in 2022 and precedes the publication of the HLOS and STPM definition document.

⁴ <https://www.transport.gov.scot/publication/scottish-ministers-high-level-output-specification-hlos-control-period-7-2024-2029/>

⁵ Rail Accident Investigation Branch (RAIB) report into the 2020 Carmont derailment

4. Assessment of STPM

4.1 Methodology

At the inception meeting between Arup, Winder Phillips Associates, Network Rail and the ORR, the proposed methodology, summarised in Figure 1 below was tabled and agreed. The approach to stakeholder engagement was also agreed.

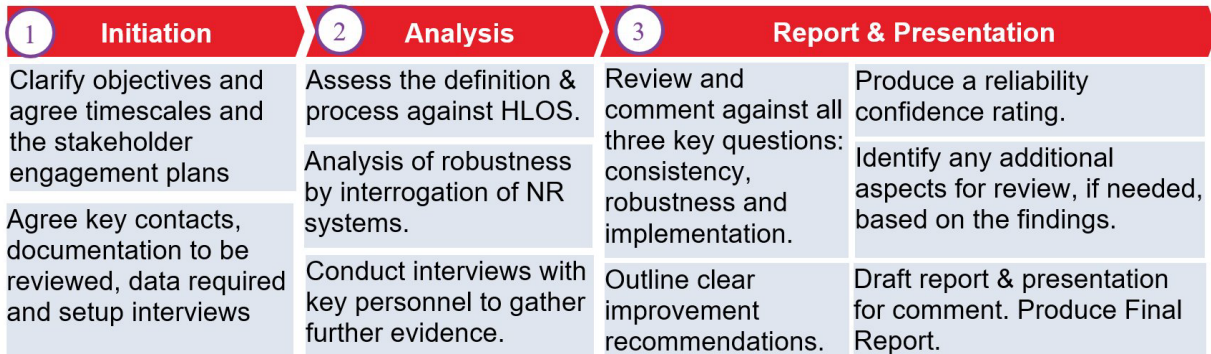


Figure 1: Methodology for assessing STPM

4.2 Review

To assess STPM, we read the relevant documents highlighted in Section 3 and held a number of meetings with relevant teams across the rail industry in Scotland including Network Rail, ScotRail, Transport Scotland and ORR. The Network Rail Performance Team provided a demonstration of how STPM is calculated based on the definition outlined in the STPM definition document and they explained the process of reporting STPM. We also asked the other stakeholders about how they use STPM in their reporting and discussed its industry implementation so far as well as the opportunities and concerns with the metric. A log of the meetings is included in Appendix A.1.

Our discussions with stakeholders were primarily focussed on the wording in the definition of STPM in the HLOS and ScotRail Grant Agreements (which has caused some confusion as to what exactly ‘severe weather’ means) as well as the metric’s robustness and implementation within the industry.

The Statement of Work sets out a series of specific questions that the Reporter is required to review, comment, and make recommendations on. These are addressed in turn below.

4.2.1 Is STPM defined in the Network Rail definition document consistent with requirements of the HLOS/relevant grant agreements?

To answer this question, it is important to understand the timeline of these documents. This is shown in Figure 2 below.



Figure 2: Timeline of the publication of the documents relevant to STPM

The ScotRail Grant Agreement, which outlines the terms under which the Scottish Government provides financial support to ScotRail for operating Scotland's national rail services, ensuring adherence to specified service and performance standards, was published by the Scottish Government in 2022. The HLOS followed in 2023 which requires the outputs of the network to be maintained in such a manner as 'to enable ScotRail Trains Ltd. to meet a Public Performance Measure (PPM) target of 92.5% for every year of CP7' and makes allowance for specific trains that are delayed due to severe weather and held connections. This adjusted version of PPM was later termed STPM in ORR's Final Determination. The STPM definition document was then created by Network Rail to explain the process for calculating STPM.

This section will explain how the wording of the definition of STPM across these documents is inconsistent – particularly with regards to 'severe weather'

Definition of Severe Weather within STPM

As shown in Section 3.4, the **ScotRail Grant Agreement** excludes delays affected by severe weather speed restrictions that have arisen as a direct result of the Carmont recommendations⁶ in its definition of PPM - later named STPM by ORR and replacing it as the main performance measure for Scotland. The Grant Agreement does not highlight what recommendations it is referring to, but we can assume that it refers to the monitoring and risk management of "extreme rainfall" in Recommendation 6 in the Rail Accident Investigation Branch report. However, Recommendation 6 also refers to the "possible extension of learning to other weather conditions" which leaves ambiguity in what the exclusions of PPM (later STPM) are in the Grant Agreement.

The formula in the ScotRail Grant Agreement is shown in Section 3.4. We believe this formula is inconsistent with how STPM is currently being calculated by Network Rail Scotland. To demonstrate this, we use the illustrative figures shown in the definition document in Table 2 below.

Table 2: Example of the calculation from the daily Business Objects report, using the figures from 8th February 2023 to 7th February 2024

Planned Trains	PPM Pass	PPM Fail (All)	PPM Fail (XQL4)	PPM Fail (Connect)	Excludable Failures	Amended Planned Trains	PPM	STPM
705,599	630,888	74,711	3,783	118	3,901	701,698	89.41%	89.91%

In the STPM definition document, the "excludable failures" due to severe weather and connections are removed from the calculation, i.e. by deducting them from the Planned Trains figure such that STPM is then "PPM Pass" / "Amended Planned Trains". However, the formulae in the ScotRail Grant Agreement (GA) does not adjust the Planned Trains figure and furthermore effectively counts the excludable failures twice, leading to a STPM figure which will be lower (i.e. worse than) than PPM. So, in this example, there were 74,711 PPM failures ("B+C" in the GA formula), of which 3,901 were excludable ("E+F" in the GA formula), so the calculation would be:

$$\text{STPM (Grant Agreement)} = [705,599 - (74,711) - (3,901)] / 705,599 = 88.86\%$$

Therefore, we perceive this 'PPM with exclusions' definition (later named STPM) to be incorrect and would suggest the formula is amended to align with STPM definition document as it is this definition that is widely reported today (and signed by both Network Rail and ScotRail). This amendment could be in the form of an addendum to the ScotRail Grant Agreement (**Recommendation 1**).

⁶ The report emphasises the need for a more proactive and risk-based application of BESRs. Recommendation 6 says that 'the railway improve its processes for mitigating rainfall-related threats to the integrity of its earthworks and drainage infrastructure which could potentially affect the safe operation of trains'. It goes on to say that any review should include 'possible extension of learning to other weather conditions and/or other types of asset'.

The **HLOS** is less specific in the definition of weather-related exclusions and only refers to ‘...*periods of severe weather*’ and could be interpreted to include severe wind, heat and snow events as well as severe rain events.

The **STPM definition document**, created to explain the process of calculating and reporting STPM, is clear that only Blanket Emergency Speed Restrictions (BESRs) that are implemented due to severe rain events are to be excluded in the calculation of STPM.

The process for implementing BESRs due to rain (and other severe weather) is outlined in the Scotland Region Adverse and Integrated Weather Plan which was obtained and explained to us by the Network Rail Scotland Weather Operation Team. The cause of the BESR is determined by Control via BETA CAT/PAT alerts which are Network Rail’s operational procedures for mitigating risks and ensuring safety during extreme weather conditions. While BESRs are determined by weather thresholds and engineering judgement, they are not attributed to rain/heat/wind snow etc. by the Weather Operations team and attribution is not considered in the Weather Plan.

The STPM definition document explains that in the case of BESRs caused by rain or flooding, train delay attributors create an incident and attribute it to the TRUST section affected. The equipment field of the TRUST incident is then annotated with ‘RAIN’ to allow these delays to be excluded in the STPM calculation. For BESRs caused by other weather events, a similar process is conducted but only rain events are excluded from the STPM metric.

The industry would benefit from an STPM ‘severe weather’ definition that has consistent wording across all documentation. We have seen email correspondence between Network Rail and ORR showing ORR sought to confirm the definition of STPM in April 2024 which we understand to have resulted in the latest July 2024 version of the STPM definition document. However, ORR did not receive a STPM definition signed by Scottish Rail Holdings and Transport Scotland which has led to the need for this review.

We have found that the severe weather definition outlined by Network Rail and ScotRail in the STPM definition document is understood and accurately reported by the Performance Team and senior Network Rail stakeholders that use the metric on a daily basis but that those who do not work in a performance role specifically are not fully briefed on what the exact exclusions of STPM are. The formula for calculating the STPM is accurately explained in the definition document and we have seen no evidence of this definition being applied incorrectly by Network Rail Scotland.

From our discussions with Network Rail, there is some debate as to what STPM should be, and if the definition should be expanded to include severe snow, heat and wind events too. On the other hand, there are others who disagree with its introduction as it does not properly incentivise Network Rail to provide a better service to our passengers when BESRs are in place.

To tackle this issue, it would be advantageous for all of Scotland’s Railway main stakeholders to come together to discuss the current definition and any potential amendments to it i.e. snow/wind/heat to get to a definition that is understood and accepted by all. This will also offer the opportunity to agree the formula for calculating the measure and ensure the wording and formulae are consistent across all industry documentation (**Recommendation 1**).

Definition of Held Connections within STPM

The exclusion of delays caused by the held connections aspect of the STPM definition is more consistent between industry documentation. The STPM definition document states that the exclusion will be made for trains which are pro-actively held to allow onward connections for passengers – either with other train services or with other modes of transport such as buses or ferries.

The relevant reason codes that are attributed to these incidents by the delay attribution teams are highlighted in the document. There have been some changes to the connection delay codes in the Delay Attribution Principles and Rules (DAPR) since the definition of STPM was initially agreed which has required some minor reworking of exclusions. We would therefore suggest that a review of the excludable reason codes in

the definition document is conducted after each issue of the DAPR to ensure that these remain consistent with the agreed definition (**Recommendation 2**).

We conclude that the held connections element of STPM in the definition document is defined consistently with requirements of the HLOS and ScotRail Grant Agreement.

4.2.2 Is the methodology for determining STPM suitably robust?

According to the Network Rail Scotland Performance Team, STPM is calculated in two different systems – one in BusinessObjects and one in PowerBI. Both reports are fed from the industry’s Performance System database (PSS) and calculate the same results, but BusinessObjects requires additional formulae to get to the STPM metric. The BusinessObjects Daily Report, which has been in operation for over ten years, primarily focuses on data from yesterday and the previous 13 periods to calculate the Moving Annual Average (MAA). The Power BI platform – which is intended to eventually replace the BusinessObject report - handles over 10 years of historical data, necessitating the creation of calculations on both platforms.

We understand the performance team regularly cross-check that the STPM totals and Moving Annual Average (MAA) is the same on both reports and resolve any issues as required. Reports are refreshed daily to update the results for incidents that have been changed through the ongoing attribution process in TRUST. These reporting systems are robust and are well-established in Network Rail Scotland.

There is a defined internal process for attributing excludable delays and for calculating STPM, evidenced by train delay attribution briefings and the STPM definition document. To assist with monitoring of STPM, there are a number of dashboards that display STPM, including a STPM MAA page, an excludable incidents page and a data quality check page.

We note that the attribution for severe rainfall events requires some manual entry by train delay attributers. For the performance analysis team to exclude these events as per the definition document, the equipment field must contain the annotation ‘RAIN’ to differentiate between other weather events such as wind in the XQL4 Responsible Manager code. This annotation is inputted as freeform text which can make it susceptible to spelling and formatting inconsistencies and therefore missed in STPM calculations. However, there is a XQL4 data quality check page which allows the performance team to identify if X4 has been allocated correctly and alert the attribution team to make changes when appropriate.

This risk is not present for the connections exclusions in STPM as delays are attributed to a list of excludable reason codes with disputes resolved as per industry delay resolution procedures outlined in the DAPR.

We conclude that the methodology for calculating STPM, as defined in the STPM definition document, is suitably robust and the performance team are clear with what type of incidents are excluded in the metric as evidenced by the analysis team’s demonstration of the process and the delay attribution briefings on the XQL4 Responsible Manager code.

While no significant concerns with the internal process for calculating STPM have been raised by stakeholders, no external audit of the metric is in place. As by definition STPM excludes some events, there is a risk that the number of exclusions will increase as there is no clear incentive for Network Rail to challenge the delay attribution of these incidents – especially if performance targets are failing to be met. No evidence of this has been observed by the project team.

To address this risk, we propose that a review process be established to ensure excludable delays align with the severity of excludable incidents, i.e. high rainfall days. This could be in the form of an annual statement created by Network Rail and sent to the ORR and would provide an added level of assurance to the process and ensure that there is an appropriate level of exclusions, and that the industry remains committed to improving the rail experience for passengers (**Recommendation 3**).

4.2.3 Is STPM being suitably and robustly implemented?

We have obtained several reports including a STPM periodic report, Scotland’s Railway daily performance report and Performance Improvement Executive (PIE) slide pack. The graphs and tables within these reports are made up of both PPM and STPM metrics.

In the daily performance report, the headline figures at the top of the first page are STPM, reported as the daily figure and target, the period to date figure and target as well as the STPM MAA figure and target. The rest of the report contains a mixture of PPM and STPM figures, usually depending on which organisation’s figures are being quoted, as seen in in Figure 3.

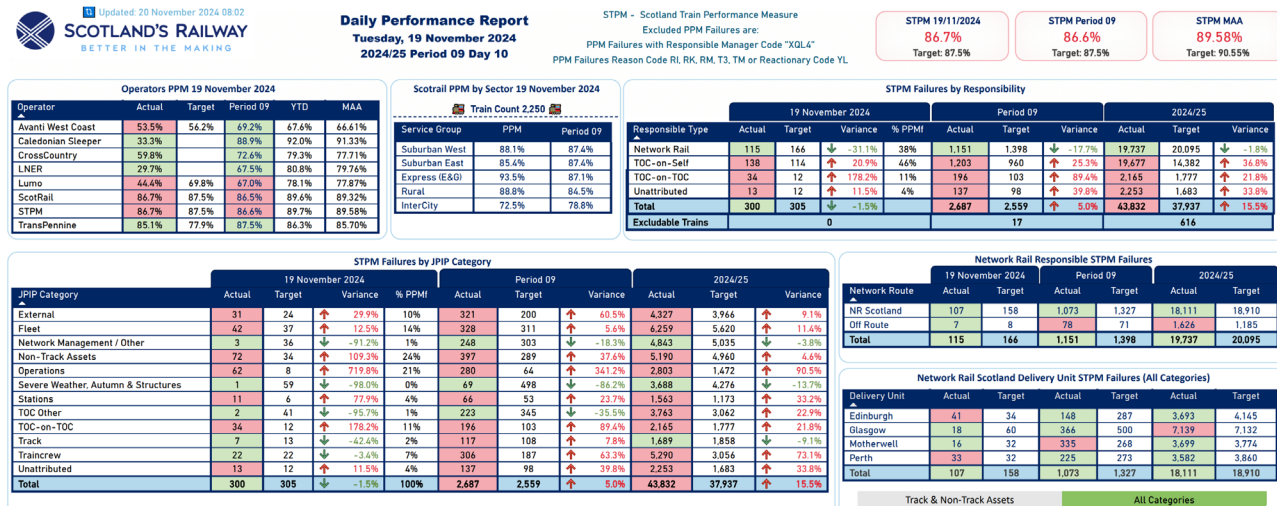


Figure 3: Screenshot of Daily Performance Report (19th November 2024)

The STPM periodic report in Figure 4, which is provided to ORR, provides a detailed breakdown of the measure by period and MAA. This report also contains references to PPM, but this is to assist with understanding the make-up of STPM as opposed to reporting PPM separately.

Scotland Train Performance Measure by Period



Updated: 20 November 2024 06:33

Scotrail Service Group, ScotRail TSC Description

Excluded PPM Failures are:
 - XQL4 coded PPM failures
 - Connectional policy PPM failures coded: RI, RK, RM, T3, TM
 - YL coded incidents (not coded to: RI, RK, RM, T3, TM or X4)

Very Short Period	Train Count	PPM Below Threshold	PPM	HAPPMFailures-XQL4	HAPPMFailures-Connections	PPM Failure Connections YL not STPM	Excludable Trains	STPMTrainCount	STPM	PPM MAA	STPM MAA
P2508	58035	48242	83.1%	43	18	15.30	76	57,959	83.2%	89.34%	89.61%
P2507	45613	41463	90.9%	0	6	16.10	22	45,591	90.9%	89.38%	89.68%
P2506	42111	38663	91.8%	16	19	15.65	50	42,061	91.9%	89.01%	89.45%
P2505	41528	37243	89.7%	115	9	12.23	136	41,392	90.0%	89.01%	89.46%
P2504	49652	44323	89.3%	15	7	11.26	33	49,619	89.3%	89.13%	89.57%
P2503	57282	52275	91.3%	35	17	5.41	57	57,225	91.4%	89.37%	89.85%
P2502	56901	52126	91.6%	48	12	12.70	73	56,828	91.7%	89.25%	89.75%
P2501	55509	50550	91.1%	134	5	6.05	145	55,364	91.3%	89.31%	89.81%
P2413	57929	53516	92.4%	0	12	6.11	18	57,911	92.4%	89.43%	89.91%
P2412	56758	51679	91.1%	82	25	9.50	117	56,641	91.2%	89.34%	89.85%
P2411	51373	44855	87.3%	592	16	7.91	616	50,757	88.4%	89.42%	89.92%
P2410	48636	41644	85.6%	452	2	10.95	465	48,171	86.5%	89.65%	90.10%
P2409	54973	47655	86.7%	192	10	10.91	213	54,760	87.0%	89.44%	89.86%
P2408	53535	44471	83.1%	294	21	11.05	325	53,210	83.6%	89.39%	89.80%
P2407	53801	46280	86.0%	1071	12	16.97	1099	52,702	87.8%	89.31%	89.75%
P2406	55331	50452	91.2%	127	14	12.50	154	55,177	91.4%	89.48%	89.86%
P2405	54655	49719	91.0%	189	18	15.97	223	54,432	91.3%	89.50%	89.91%
P2404	53618	49618	92.5%	242	6	11.51	259	53,359	93.0%	89.37%	89.82%
P2403	55311	49616	89.7%	245	18	14.16	278	55,033	90.2%	89.21%	89.64%
P2402	55340	51198	92.5%	6	1	7.76	15	55,325	92.5%	89.30%	89.72%
P2401	57261	52934	92.4%	40	3	8.03	51	57,210	92.5%	89.07%	89.51%

Date	Operator	Incident Number	Incident Description	Reason Code	Responsible Manager	PPMFs	HAPPMFailures -XQL4	HAPPMFailures -Connections	PPM Failure Connections YL not STPM	Excludable Trains	TrainID-10	Full CAN	Part CAN	Reactionary
17 November 2024	HA	996598	1H35 HELD FOR 1A86 ABD	RK	RHAK	1	0	1	0.00	1	011A56MQ17	0	0	Reactionary
17 November 2024	HA	996598	1H35 HELD FOR 1A86 ABD	RK	RHAK	1	0	1	0.00	1	011A60MU17	0	0	Reactionary
17 November 2024	HA	996598	1H35 HELD FOR 1A86 ABD	RK	RHAK	1	0	1	0.00	1	021H35MQ17	0	0	Reactionary
16 November 2024	HA	994645	3A25 SCHEDULE ELG	QA	QQA0	1	0	0	1.00	1	021T68MZ16	0	0	Reactionary
16 November 2024	HA	994527	DNRAGIT TREE	XO	XQLQ	1	0	0	1.00	1	081K66M716	0	0	Reactionary
15 November 2024	HA	990886	PBO TALNGT TC FLR	IE	IQUJ	1	0	0	1.00	1	021H77M815	0	0	Reactionary
15 November 2024	HA	991837	1H25 9 LATE PTH	RK	RHAK	1	0	1	0.00	1	011A34M715	0	0	Reactionary
15 November 2024	HA	991837	1H25 9 LATE PTH	RK	RHAK	1	0	1	0.00	1	012H76M815	0	0	Reactionary
15 November 2024	HA	991837	1H25 9 LATE PTH	RK	RHAK	1	0	1	0.00	1	012H77M715	0	0	Reactionary
15 November 2024	HA	991837	1H25 9 LATE PTH	RK	RHAK	1	0	1	0.00	1	031H25MV15	0	0	Primary
15 November 2024	HA	991385	1H65 3 LOST INR INS	TO	THAI	1	0	0	1.00	1	012H65MX15	0	0	Reactionary

Figure 4: Example of STPM Periodic ORR Report (20th November 2024)

The PIE slide pack contains a number of tables and charts containing a mix of PPM and STPM figures. The performance headlines shown in Figure 5 are in PPM which corroborates our discussions with the ScotRail performance team that STPM is limited in its use in the organisation. From our discussions with ScotRail and examining the Scotland's Railway PPM/STPM reporting evidenced in this report, we appreciate that there is still value in reporting PPM alongside STPM.

However, as the ScotRail Grant Agreement does not explicitly mention STPM (as the document precedes the naming by ORR), it is not immediately clear from the reporting that the PPM figures are not actually STPM. As the reports contain both STPM and PPM, we assume that this is not the case and that where PPM is quoted, this is the "no exclusions" definition. We would encourage ScotRail/Scotland's Railway to make clear in their reporting the difference between PPM and STPM to support better public understanding (**Recommendation 4**).

Performance Headlines



	Intercity Express Sector Other	Express Sector E&G	Rural Sector	Suburban East Sector	Suburban West Peak	Suburban West Off Peak	ScotRail	Period MAA Change
Period 7 PPM MAA (%)	84.2	90.9	84.7	88.9	88.6	91.9	89.68	↑ 0.25
2024/25 target PPM MAA (%)	84.9	91.7	87.5	91	89	92.5	90.70%	
Target	86.5	89.3	85.3	92.5	84.9	92.5	92.50%	
Performance Improvement Plan	83.5	86.3	82.3	89.5	81.9	91.0	90.0	
Breach	80.5	83.3	79.3	86.5	78.9	88.0	88.5	
Default	77.5	80.3	76.3	83.5	75.9	85.0	85.5	

Figure 5: Performance Headlines in Period 7 PIE slide deck

Indeed, the performance reports published on the ScotRail website for the latest period 4-week period do not contain reference to STPM, as shown in Figure 6 below.

83.2%
Public Performance Measure

89.61%
Moving Annual Average PPM Target - 90.3%

How we performed in your area	Express (other than E&G) sector	Edinburgh - Glasgow Q&S	Rural sector	East suburban sector	West suburban Peak sector	West suburban Off Peak sector
PPM four weekly	77.4%	84.7%	77.1%	85.8%	78.7%	85.4%
PPM weekly	82.2%	89.2%	81.8%	89.6%	89.2%	81.2%
Trains not cancelled four weekly	96.4%	99.7%	97.4%	99.1%	99.2%	99.2%
Trains not cancelled weekly	98.8%	99.8%	98.4%	99.8%	99.8%	99.9%

PPM (Public Performance Measure) is the percentage of booked services which arrive within 5 minutes of their booked arrival time, having called at all booked stations on the route.

Unfortunately things don't always go to plan. The following incidents caused significant delays and cancellations

17/10/2024	A track circuit failure at Finnieston Tunnel
16/09/2024	A speed restriction between Dalmeir to Dumfries
28/10/2024	A security incident at Dalmeir
24/10/2024	A fault with the signalling system at Linlithgow
21/10/2024	A track circuit failure at Bellsyde Station

Annual On Time Arrival at Destination

The table below shows the arrival times at terminal stations on the ScotRail network over a rolling 12 months

Location	On Time	Booked T	On Time A	PPM	Location	On Time	Booked T	On Time A	PPM
Aberdeen	60.8%	66	63.3%	82.5%	Glasgow Queen Street	51.9%	201	51.9%	89.0%
Airdrie	52.0%	35	52.3%	84.8%	Glasgow Queen Street Low Level	-	-	-	81.1%
Alloa	72.5%	10	72.5%	95.2%	Gourock	46.7%	57	46.7%	94.1%
Arnesland	57.0%	35	63.0%	91.4%	Haymarket	38.6%	1	66.2%	90.8%
Atroush	7.4%	15	23.6%	72.5%	Helensburgh Central	32.4%	34	63.4%	83.6%
Airdgy	52.4%	1	52.4%	81.5%	Invergardan	49.0%	1	57.4%	82.2%
Androssan South Beach	24.0%	1	60.8%	92.6%	Inverness	84.8%	42	84.6%	81.0%
Androssan Town	12.5%	2	61.1%	91.3%	Inverurie	81.9%	11	83.9%	84.2%
Androssan Harbour	37.4%	15	37.4%	88.3%	Inverurie	0.0%	1	74.7%	95.5%
Avenmore	-	-	53.4%	77.7%	Kilmarnock	74.5%	25	75.3%	82.1%
Ayr	37.7%	65	35.2%	91.1%	Kilwinning	31.1%	2	64.9%	94.0%
Balloch	42.7%	37	42.7%	85.5%	Kirkcaldy	91.7%	3	58.7%	88.7%
Barrhead	52.1%	25	60.4%	94.1%	Kyle of Lochalsh	44.5%	4	44.5%	79.3%
Bathgate	62.2%	9	63.8%	87.4%	Larkhall	59.0%	37	63.0%	90.2%
Cardenden	-	-	60.0%	88.3%	Largs	38.0%	18	38.0%	87.6%
Carstairs	61.6%	18	61.6%	91.0%	Larkhall	43.6%	35	43.6%	87.1%
Carnoustie	-	-	17.4%	73.8%	Lenco	0.0%	1	69.0%	94.4%
Carstairs	50.9%	4	48.0%	91.5%	Malpas	58.3%	4	58.3%	75.9%
Cowdenbeath	61.7%	9	58.8%	89.3%	Markinch	0.0%	1	40.0%	68.9%
Crichton	28.0%	2	32.0%	94.5%	Milngavie	44.4%	63	44.4%	87.8%
Cumbernauld	46.6%	19	48.6%	94.2%	Motherwell	56.1%	42	64.2%	90.1%
Dalmally	81.0%	1	81.0%	71.0%	Montrose	71.6%	17	26.1%	81.5%
Dalmeir	51.1%	73	53.0%	97.6%	Mount Florida	-	-	73.6%	98.9%
Dingwall	79.3%	1	62.1%	84.9%	Neilston	58.0%	49	57.9%	98.2%
Dumfries Central	-	-	52.0%	86.2%	Newton	56.6%	39	61.3%	82.7%
Dumfries	72.9%	10	65.0%	91.6%	North Berwick	87.7%	19	67.7%	92.9%
Dunbar	76.4%	5	76.4%	94.6%	Oban	31.6%	7	31.6%	50.6%
Dunblane	62.0%	44	71.1%	91.6%	Partick	-	-	56.5%	90.7%
Dunfermline	40.0%	17	43.9%	89.4%	Partick	-	-	49.2%	95.7%
Dyce	79.4%	2	71.0%	87.6%	Paesley Gilmour Street	-	-	70.3%	95.6%
Edinburgh	52.0%	371	52.0%	87.4%	Perth	72.7%	15	67.4%	88.1%
East Inverclyde	49.3%	38	49.3%	93.5%	Rutherglen	-	-	69.2%	81.6%
Elgin	74.0%	6	64.6%	84.2%	Shotts	-	-	65.1%	81.8%
Garioch	65.1%	5	70.2%	91.5%	Springburn	43.7%	37	68.4%	81.6%
Falkirk Gallastron	59.7%	-	78.1%	95.0%	Stirling	51.5%	11	74.0%	92.6%
Falkirk High	-	-	78.1%	95.0%	Stonehaven	57.5%	3	62.2%	84.0%
Fort William	75.2%	1	69.3%	81.3%	Stranraer	33.9%	8	33.9%	78.6%
Garioch	65.1%	5	70.2%	91.5%	Tain	66.5%	2	56.3%	81.3%
Girvan	39.2%	11	39.2%	88.0%	Tweedbank	50.6%	33	60.5%	88.2%
Glasgow Central	54.3%	492	64.3%	91.9%	Wemyss Bay	78.4%	19	78.3%	86.6%
Glasgow Central Low Level	-	-	60.4%	91.6%	Whifflet	31.0%	16	55.2%	88.6%
Glenrothes	43.2%	41	44.4%	83.7%	Wick	54.7%	4	54.7%	73.1%

On Time - The percentage of ScotRail services that terminate at this location On Time*
 Booked T - The number of ScotRail services planned to terminate at this location on a typical weekday
 On Time A - The percentage of ScotRail*
 PPM - The percentage of ScotRail*
 *On time is the percentage of booked services which arrive

Figure 6: Published ScotRail Performance Report 13-Oct to 09-Nov 2024

There are some STPM figures quoted in the PIE slide pack alongside PPM and the accompanying commentary shown in Figure 7 below also references both metrics. Reference is made to unadjusted targets which are not explained fully but we assume these refer to adjusted targets due to recent ScotRail timetable changes rather than an adjusted version of PPM.

Period 7 Performance

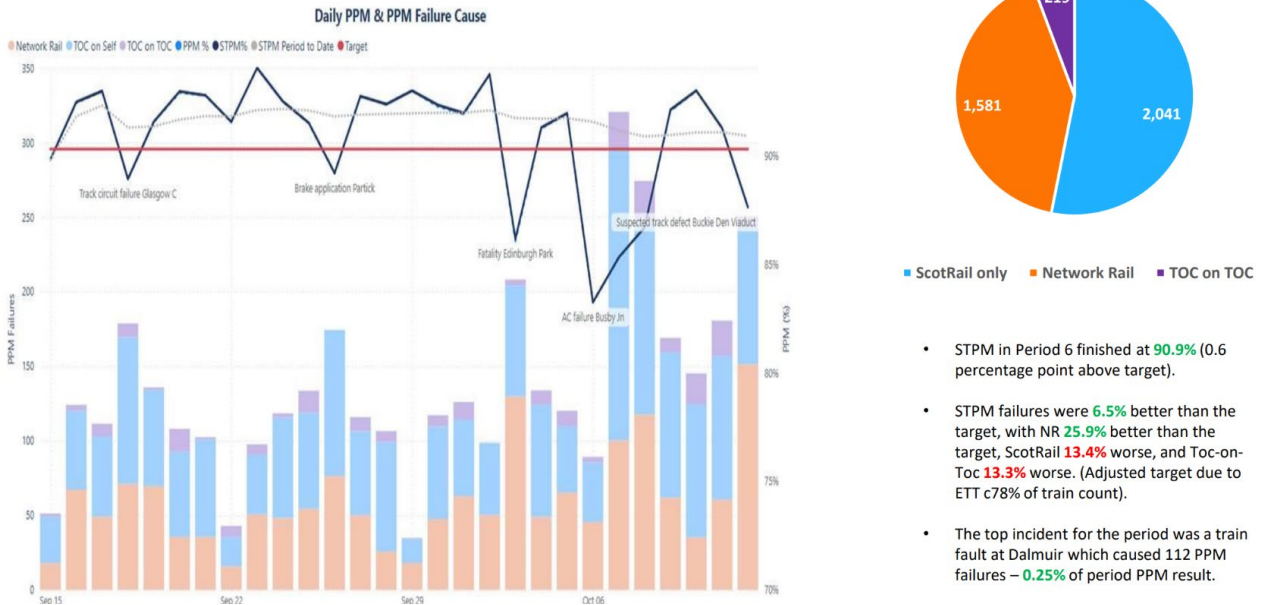


Figure 7: Period 7 Performance screenshot from PIE slide deck

In summary, we have found that STPM is being implemented robustly at a high level within Network Rail, but the organisation would benefit from clearer communication of the metric and for it to be differentiated more clearly from PPM at a high level. That said, we would question the effectiveness of STPM implementation in the industry as a whole if the train operator that runs the vast majority of trains does not consistently report on the metric.

From discussion with stakeholders, we would also suggest that more work is required to ensure STPM is understood beyond the Performance Team and senior managers. Indeed, many teams within Network Rail such as maintenance will likely continue to use PPM failures alongside other current metrics (e.g. Service Affecting Failures) to measure their performance as STPM does not exclude asset failure incidents due to severe rainfall and flooding.

We appreciate the benefit of PPM reporting alongside STPM, but as evidenced above, the presentation of this could be improved. Additionally, the dashboards and reports created by Network Rail would benefit from being more explicit in the XQL4 coded exclusions only. The STPM explanatory note on the daily performance report and others does not mention ‘RAIN’ only which may contribute to the ambiguity of the definition in the industry more widely. Although, this could also be contributed to by the lack of severe weather events so far in Scotland since STPM was introduced in April 2024 (**Recommendation 4**).

5. Reliability Grading

This section provides a grading of the system reliability, as defined by ORR, in Table 3 below. We have not been asked to assess system accuracy as part of this study. The system reliability grading system is explained in Appendix A.4.

Considering the discussions with all stakeholders and the evidence provided, we have concluded that the STPM process should be scored a **B**.

Table 3: System Reliability Grading System

Band	Description
A	Sound textual records, procedures, investigations, or analysis properly documented and recognised as the best method of assessment
B	As A but with minor shortcomings. Examples include old assessment, some missing documentation, some reliance on unconfirmed reports, some use of extrapolation
C	Extrapolation from limited sample for which Grade A or B data is available
D	Unconfirmed verbal reports, cursory inspections, or analysis

We have assessed that the definition outlined in the STPM definition document is robust and is being implemented appropriately by the performance team. The definition document and other documents seen in Appendix A.2 provides evidence of sound procedures and analysis.

However, the lack of consistency in the wording of the definition in the Grant Agreement and the perceived error in the formula in the Grant Agreement is leading to differing levels of understanding of the metric in parts of the industry. The fact that there is no explanation as to what constitutes ‘severe weather’ in the HLOS is also causing ambiguity in parts of the industry. The presentation of PPM and STPM together in some of the observed reporting can also be confusing and negatively affect our understanding of good/bad performance.

A clear definition of STPM with consistent wording and formulae across all documentation and communicated effectively to all of Scotland’s Railway would help the STPM process achieve an A grade.

6. Recommendations

We have identified the following recommended improvements for ORR and Network Rail to consider.

Table 4: Table of Recommendations

Recommendation Number	ORR Reference	Recommendation to Network Rail	Intent & Benefits	Evidence of Implementation	Location in Text
1	SOW43687-1	Network Rail should seek agreement of the definition and calculation of Scotland Train Performance Measure (STPM) with all stakeholders. This definition should be signed off by Network Rail, Transport Scotland, Scottish Rail Holdings, ScotRail Trains and ORR and be consistent in wording across all industry documentation.	<p>As we have found a range of opinions on what should constitute as ‘severe weather’, we would encourage a discussion between the aforementioned stakeholders to discuss the current definition and potential amendments to it i.e. snow/wind/heat to get to a definition that is understood and accepted by all.</p> <p>This will deliver a clear understanding across all stakeholders of what is included in the metric and what is not.</p> <p>It will also offer the opportunity to ensure that the formula for calculating the measure is agreed amongst all parties and aligned between the Grant Agreement and the STPM definition document.</p>	<p>Definition document signed by all relevant stakeholders.</p> <p>Potential addendum to ScotRail Grant Agreement with updated formula.</p>	Section 4.2.1
2	SOW43687-2	Network Rail to create a bi-annual review cycle on the STPM definition document to ensure the reason codes used remain	A bi-annual review cycle will capture all bi-annual changes in the Delay Attribution Principles and Rules (DAPR) and ensure the metric is up to date as per the agreed definition.	Updated definition document agreed bi-annually to reflect changes to the DAPR.	Sections 4.2.1 and 4.2.3

Recommendation Number	ORR Reference	Recommendation to Network Rail	Intent & Benefits	Evidence of Implementation	Location in Text
		aligned with any future DAPR changes.			
3	SOW43687-4	Annual review of the application of STPM exclusions by ORR to ensure it is being applied as defined.	A high-level annual audit of excludable events/delays would help to ensure the metric is working as intended by providing assurance that these align with the severity of the incidents and mitigate the risk of an increase of excludable events to meet STPM targets. We have not observed any evidence of this at present.	Annual statement produced by Network Rail containing all STPM exclusions provided to ORR.	Section 4.2.2
4	SOW43687-4	Where PPM and STPM are reported together, Network Rail and ScotRail to ensure that the metrics in the report are clearly defined and segregated if necessary to avoid confusion.	We have observed some instances where PPM and STPM are reported together in a way that can be confusing to those without a clear understanding of the difference.	Network Rail to seek agreement with ScotRail to update reporting to be clear on which metric is being used and why.	Section 4.2.3

A.1 Meetings Log

Table 5: Log of meetings between stakeholders

Meeting	Attendees	Date
Inception Meeting	Arup, Winder Phillips Associates, Network Rail, ORR	11/11/2024
STPM Process Overview	Arup, Network Rail Scotland Performance Analysis Team	14/11/2024
IR Weekly Meeting	Arup, Network Rail, ORR	18/11/2024
STPM Scotrail Process Overview	Arup, ScotRail	20/11/2024
STPM Weather Control Process Overview	Arup, Network Rail Scotland Weather Operations	20/11/2024
STPM Delay Attribution Process Overview	Arup, Network Rail Scotland Delay Attribution	20/11/2024
STPM Transport Scotland View	Arup, Transport Scotland	20/11/2024
IR Weekly Meeting	Arup, Network Rail, ORR	26/11/2024
STPM Meeting with Route Director and Head of Performance	Arup, Network Rail	02/12/2024
IR Weekly Meeting	Arup, Network Rail, ORR	02/12/2024
Arup Presentation of Draft Findings - ORR IR STPM Review	Arup, Network Rail, ORR	04/12/2024

A.2 Documents Log

Table 6: Log of documents and data received from stakeholders

Document Received	Date Received	Sender
STPM Definition Document	07/11/2024	Network Rail
Exports from STPM ORR report P8	14/11/2024	Network Rail
Daily Report 19th November 2024	20/11/2024	Network Rail
Scotland Weather Management Document V.11	20/11/2024	Network Rail
TDA April Briefing (Weather Coding)	20/11/2024	Network Rail
ESSIC and Weather-related Equipment Field input Briefing	20/11/2024	Network Rail
Performance Improvement Executive Report P7	20/11/2024	Network Rail
ScotRail Monthly Performance Results	28/11/2024	Obtained from ScotRail website
September 2024 DAPR	28/11/2024	Obtained from Network Rail website
Storm Bert Incidents 23 rd -25 th November	05/12/2024	Network Rail

A.3 Statement of Works

Independent Reporter Framework Statement of Works (SoW)

1.0 COMMISSION INFORMATION	
Project Name:	Scotland Train Performance Measure (STPM)
Network Rail Department:	Planning & Regulatory Team
Date Raised:	8 th November 2024
Supplier Name:	Ove Arup and Partners Limited

This Statement of Work (SoW) is the contractual vehicle for defining, authorising, and commissioning a piece of work to be undertaken under the Independent Reporter Framework. The SOW has six sections:

- 1 *Commission Information*
- 2 *Commission Overview*
- 3 *Scope of Services and Deliverables*
- 4 *Knowledge Transfer*
- 5 *Resource & Commercial Details*
- 6 *Invoicing*

This SoW is entered into under and in accordance with the terms of the Independent Reporter Framework dated 1 February 2020 between Network Rail, the Office of Rail and Road, and the Supplier and includes and incorporates any special Terms and Conditions and any other amendments captured in this SoW.

Any dispute surrounding this SoW will be resolved in accordance with the Terms and Conditions outlined in the Framework Agreement.

Ownership and use of any Intellectual Property Rights shall be in accordance with the Framework Agreement Terms and Conditions.

Change control procedures are to be applied as set out in the Terms and Conditions of the Framework Agreement.

2.0 COMMISSION OVERVIEW

2.1 Background

The [Scottish Ministers’ High Level Output Specification \(HLOS\) for Control Period 7 – 2024- 2029](#) requires the outputs of the network to be maintained in such a manner as to enable ScotRail Trains Ltd. to meet a Public Performance Measure (PPM)⁷ target of 92.5%. This target applies for every year of Control Period 7 (CP7).

The Scottish Government allows Network Rail and ScotRail Trains Ltd a specific derogation from the 92.5% target. In this derogation, trains are excluded from the PPM calculation where:

- delays are caused by the need for speed restrictions during periods of severe weather; or
- trains have been delayed to enable connections from other modes of transport.

[ORR's final determination \(supporting document on outcomes\)](#), set out an adjusted version of PPM to allow for this derogation. ORR called this version the ‘Scotland train performance measure’ (STPM). It is the primary focus of ORR’s passenger train performance monitoring in Scotland.

Network Rail Scotland has developed a definition document for STPM and is currently monitoring this measure each railway period. It has engaged with ORR and Transport Scotland to seek feedback on this technical specification. For reference, performance of the STPM is typically around 0.5 percentage points higher than ScotRail PPM.

2.2 Business Objectives and Priorities

The objective of the Independent Reporter review is to report on STPM. This is both on the technical specification itself, and the implementation of this technical specification.

As STPM is a new measure, ORR must have confidence that STPM is an effective measure of train performance.

Out of scope: This Independent Reporter review will not report on the accuracy of the overall attribution process – i.e. those elements that are outside the STPM definition document.

3 .0 SCOPE OF SERVICE AND DELIVERABLES

⁷ PPM for ScotRail is the percentage of planned trains arriving at their final scheduled destination early or less than five minutes after their scheduled arrival time having called at all their planned station stops.

3.1 Key requirements

The Reporter will be required to assess the STPM definition document and its use within Network Rail.

To do this the Reporter will be required to review, comment, and make recommendations on the following questions:

- Is STPM defined in the Network Rail definition document consistent with requirements of the HLOS/relevant grant agreements?
- Is the methodology for determining STPM suitably robust?
- Is STPM being suitably and robustly implemented?

The reporter will also be required to:

- Present a system reliability confidence grading based on the most up to date dataset available during the commission

Reliability grading system:

Band	Description
A	Sound textual records, procedures, investigations, or analysis properly documented and recognised as the best method of assessment
B	As A but with minor shortcomings. Examples include old assessment, some missing documentation, some reliance on unconfirmed reports, some use of extrapolation
C	Extrapolation from limited sample for which Grade A or B data is available
D	Unconfirmed verbal reports, cursory inspections, or analysis

- Make recommendations for improvements Network Rail Scotland would need to make to achieve higher gradings (if appropriate).

STPM is produced by the Network Rail Scotland Performance Team. To pre-empt any potential recommendations and minimise the risk of duplicating work, the Reporter should work with Network Rail Scotland and ORR to understand any known issues or existing work streams that could impact on potential gradings.

Further background on STPM can be found in ORR’s PR23 final determination.

<p>3.2 Key skills</p>	<p>Bidders will need to demonstrate how they meet the key following skills and experience:</p> <ul style="list-style-type: none"> • Knowledge of GB rail industry performance systems (such as TRUST) or equivalent performance management systems. • Experience of assessing the delivery of systems against their associated technical specifications/definition documents. • Capable of producing a reliable and efficient method for analysis and assessment. • Access to suitable tools and software to provide the required analysis. • Ability to work collaboratively with key stakeholders at all levels. <p>TRUST = Train Running Under System TOPS TOPS = Total operations processing system</p>
<p>3.3 Key deliverables</p>	<p>The required deliverables are:</p> <ul style="list-style-type: none"> • A presentation of draft findings and a draft report. These will cover the elements set out in section “3.1 Key Requirements” above. • A final report that addresses comments provided by ORR and NR on the draft report/ findings. • Regular (at least weekly) progress updates, including early identification of any potentially significant issues identified as part of the work. <p>These deliverables will be provided to Network Rail and ORR</p>
<p>3.4 Proposed approach</p>	<p>The supplier will deliver the service in line with their proposed approach as detailed in Appendix 2.</p> <p>The full details of the approach will be confirmed as part of the kick-off meeting. Any amendments to be agreed with the buyer and documented.</p>
<p>3.5 Schedule & timings</p>	<p>Contract Start Date: 18th November 2024* Contract End Date: 31st December 2024*</p> <p>*These are indicative dates and will be agreed once the contract has been awarded and the PO has been approved.</p> <p>The supplier will provide an updated schedule within 2 weeks, following completion of the kick-off meeting, detailing any amendments to the approach (see 3.4 Proposed approach</p> <p>The contract will end on 31st December 2024, or subject to advance agreement in writing by Network Rail, until all deliverables (3.1 Key Requirements) under the contract have been completed and signed off within the agreed cost stated in the contract.</p>

3.6 Relationship applicable for performing the duties under this statement of works contract	Data Controller and Data Processor. The only processing that the Supplier is authorised to do is listed as in Appendix 1 and may not be determined by the Supplier.
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4.0 KNOWLEDGE TRANSFER

4.1 Knowledge Transfer	Delivered in the form of the final report.
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A.4 System Reliability Grading System

Table 7: System reliability grading system

Band	Description
A	Sound textual records, procedures, investigations, or analysis properly documented and recognised as the best method of assessment
B	As A but with minor shortcomings. Examples include old assessment, some missing documentation, some reliance on unconfirmed reports, some use of extrapolation
C	Extrapolation from limited sample for which Grade A or B data is available
D	Unconfirmed verbal reports, cursory inspections, or analysis

Notes:

1. System reliability is a measure of the overall reliability, quality, robustness and integrity of the system that produces the data.
2. Some examples of the potential shortcomings include old assessment, missing documentation, insufficient internal verification and undocumented reliance on third-party data.