Change Management Capability across Network Rail’s Digital Signalling Portfolio

Office of Rail & Road and Network Rail | Independent Reporter Framework

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The Value of Certainty.

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List of Abbreviations

Acronym	Definition
CORE	Controls Oversight Reporting & Execution
CP7	Control Period 7
CP8	Control Period 8
CP9	Control Period 9
DfT	Department for Transport
DSP	Digital Signalling Portfolio
ECDP	East Coast Digital Programme
ETCS	European Train Control System
EWN	Early Warning Notice
FOC	Freight Operating Company
GBR	Great British Rail
GHD	Gutteridge, Haskins & Davey
IPDR	Industry Partnership Digital Railway
IR	Independent Reporter
LTDP	Long Term Deployment Plan
MAR	Market Application Readiness
MoP	Management of Portfolios
NR	Network Rail
OEM	Operational Equipment Manufacturing
OSMR	Operations, Support, Maintenance and Renewals
ORR	Office of Rail & Road
OTM	On-Track Machine
PDB	Portfolio Direction Board
PDP	Portfolio Delivery Plan
PMO	Portfolio Management Office
PR23	Periodic Review 2023
RACI	Responsible, Accountable, Consulted, Informed
RMF	Risk Management Framework
ROSCO	Rolling Stock leasing Company

TCSF	Train Control System Framework
TOC	Train Operating Company
TRU	TransPennine Route Upgrade
WCN	West Coast North

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1. Executive Summary

1.1 Purpose

a) This report was jointly commissioned by the ORR and Network Rail to assess how Network Rail manages changes across the Digital Signalling Portfolio (DSP), including how changes are assessed and how the impact and outcome of change is communicated to industry stakeholders.

b) The DSP has recently refreshed their Management of Change Process, introduced the 'CORE' system to support this, and the Independent Reporter (IR) observes that as it is recently refreshed, the process continues to embed within the Portfolio as new changes are identified and processed. The Management of Change process consists of five stages: Early Warning, Change Initiation, Change Assessment, Change Review & Approval and Post-change Governance and the Independent Reporter has commented on each of these stages throughout the report along with recommendations for improvement.

c) Up to 10 changes were proposed by the IR for assessment to evidence the effectiveness of the process, with 3 significant change events agreed by Network Rail and the ORR to be provided for consideration. Of the changes provided for review, one was an amalgamation of earlier changes started under the previous change process, and the other two changes, whilst started, had not completed the full change process prior to completion of the review. Whilst this is the nature of a recently implemented process and new system, nevertheless, this has limited the ability of the Independent Reporter to definitively comment on the effectiveness of the process in practice. The IR has recommended that following a further period of embedment, and demonstration of post-change implementation, the process be subject to a further independent review.

d) The IR observed that each of the individual programmes delivering ETCS applies their own change management process, in advance and in addition to the DSP process. Each process is applied independently and sequentially, with the programme level change completing first, before the portfolio change management process takes place.

e) The IR found that of the changes provided for review, two were estimated to take ~9-12 months to complete portfolio level change alone. The IR is of the opinion that such elongated timeframes for agreeing change within the portfolio, limits the effectiveness of the process for managing change. The extended duration also creates a risk that known but not completed changes may begin to be adopted in practice, leading to a potential lack of consistency in reporting. It is the IRs opinion that to manage the anticipated increase in volume of change expected in future Funding/Control Periods, it is vital that the time taken by the Portfolio to process change is reduced, with a target of ~12 weeks.

f) The IR identified an opportunity to improve effectiveness through a collaborative and integrated approach with programmes, running portfolio change in a lagging but mainly parallel process alongside programme level activity to minimise timelines from initial identification through to completion, enabling effective and accurate reporting.

g) The IR found that the refreshed process is largely positioned to document rather than drive or influence change. At interview, it was widely reported by the Portfolio team members that, although change requests may be rejected under certain circumstances, the portfolio is predominantly in the position where it must accept and assimilate change. Despite this, the DSP has developed strong relationships across the stakeholder community and exerted soft power and influence through relationship building. The IR acknowledges this and has proposed development of a succession plan to maintain this position going forward.

h) Therefore, the IR has identified a further opportunity to strengthen the link between risk management and the Early Warning stage of the change management process. Currently separate processes, utilising risk management within the change management process would support proactive identification and mitigation of potential change, enhance screening for potential change events and reduce the likelihood of late-stage surprises to enable more informed, evidence-based decision making.

i) The IR acknowledges that the Portfolio has already identified the need, due to increasing volumes of change, to establish a new Level 3 Change Control Panel, separate to the Portfolio Delivery Board, that currently fulfils this function. The IR supports this and recommends development of terms of reference for the level 3, and updated RACI for each, including Level 1 and 2 Change Control Panels, providing clear separation and accountabilities between promoters of change and approvers.

j) Stakeholder interviews indicate that some non-Network Rail partners feel they are informed about changes rather than actively consulted, and in some cases, changes appeared to be presented as already decided. By contrast, programmes such as the TransPennine Route Upgrade have used independently chaired expert panels to involve stakeholders more fully, and this approach was viewed positively. The IR considers that using similar panels, where appropriate, could strengthen consultation, speed up complex change decisions, and improve relationships with those affected.

k) Overall, the IR has found that the DSP's change management framework demonstrates a solid foundation, rooted in Management of Portfolios (MoP) Best Practice guidelines. While the refreshed change process is still embedding and therefore difficult to fully evaluate, the Independent Reporter found that lengthy decision timelines, limited stakeholder consultation and separation from programme-level processes reduce its effectiveness and recommends further refinement, such as stronger links to risk management, clearer governance, and more collaborative approaches, to prepare for rising future volumes of change.

1.2 Acknowledgements

a) The Independent Reporter team would like to thank the staff from the ORR and NR, along with the external stakeholders who supported the review with their time and expertise.

1.3 Summary of Report Recommendations

The Independent Reporter makes the following recommendations which are prioritised according to the definitions:

Critical (Do Now) – to increase the likelihood of a successful outcome it is of the greatest importance that the portfolio should act immediately.
Essential (Do By) – to increase the likelihood of a successful outcome the portfolio should act soon.
Recommended – the portfolio should benefit from the uptake of this recommendation.

Table 1: Summary of report recommendations

Ref.	Recommendation	Evidence	Report section	Priority and implementation timeframe	Exit Criteria
1	Compress the overall timeline for the management of change by de-coupling the sequential nature of programme or regional level approvals followed by reconciliation by the DSP, and possibly the ORR, if applicable.	The overall timeline to process CD-1038 and CD-1008. An extended duration between programme level approval and reconciliation by the DSP exposes the portfolio to the risk of different stakeholders working to different baselines and potentially creates an environment where it may be necessary to instruct a team to progress on the assumption that a change will be approved ahead of approval from the applicable change panel. As observed in section 'Working outside governance' para (b). Improved timelines are necessary to ensure sufficient capacity to	Management of Change – an overview	Critical April 2026	1. CD-1038 and CD-1008 to have a decision confirmed by the Level 3 change panel at the March Portfolio Delivery Board meeting in accordance with stage 4 of the process: Change Review and Approval 2. Update the Management of Change process with guidance for timeframes to target a duration of 12-weeks for progression from Stage 2: Change Initiation to Stage 4: Change Approval.

Ref.	Recommendation	Evidence	Report section	Priority and implementation timeframe	Exit Criteria
		manage the significant forecast increase in volumes.			
2	When setting up the Level 3 Change Control Panel separately from the PDB, the terms of reference for all panels should be updated to clearly set out who is responsible, accountable, consulted and informed (RACI) for each decision.	Key individuals were observed taking on multiple roles across management and governance activities, highlighting the need for a clearly defined RACI within updated Terms of Reference to ensure transparent and consistent and decision-making.	Management of Change – an overview	Recommended August 2026	1. Terms of reference for all panels should be updated to clearly set out who is responsible, accountable, consulted and informed (RACI) for each decision.
3	Implement a succession plan to maintain and build business resilience and continuity.	Key individuals were observed fulfilling multiple roles creating a risk of perceived or actual conflicts of interest, requiring ad-hoc agenda reshuffling or recusal to manage conflicts. As the volume of change increases, this mitigation becomes harder to maintain, and the lack of formally documented guardrails may prolong the process and undermine confidence in governance.	Management of Change – an overview	Recommended August 2026	1. A documented approach to succession planning is included in Baseline Document B – Portfolio Management Framework

Ref.	Recommendation	Evidence	Report section	Priority and implementation timeframe	Exit Criteria
4	Integrate the DSP risk management framework with the DSP management of Change Process.	The review found that the risk and change management processes remain only partially integrated, as evidenced by documentation and interview feedback, indicating the need for a more unified approach.	Identifying Change	Recommended August 2026	1. Revise the DSP Management of Change process and the DSP Risk Management Framework to show how the two management processes work together to identify, capture and assess change. 2. Define the role of the Risk and Value Manager within the Risk Management Framework and consider increasing their responsibility to Consult in the Risk RACI for Portfolio Risk and Programme/Project Risk. 3. The Risk and Value Manager is invited to become a member of the combined DSP Level 1 and 2 change control panel.
5	The risk section of the change paper template should also be revised to prompt inclusion of detail regarding: i. Any previously identified risk(s) and/or issue(s) that are mitigated by the change;	The current change paper and impact assessment templates do not require authors to explain how existing risks are affected or whether new risks arise, resulting in incomplete risk information that limits consistent assessment, escalation and portfolio-level visibility of emerging risks	Identifying Change	Recommended May 2026	1. Impact Assessment and Change Paper templates revised to include how known risk is impacted by the proposed solution to the change and any new risks created by the proposed solution to the change. The revised templates should then be communicated to users.

Ref.	Recommendation	Evidence	Report section	Priority and implementation timeframe	Exit Criteria
	ii. Any previously identified risk(s) where the likelihood and/or potential impact of the risk is increased because of the proposed solution to the change; and Any new risks not previously identified resulting from the proposed solution to the change.				
6	Amend either the impact assessment or change paper templates to require demonstration that appropriate stakeholder engagement activities have been undertaken. This may be tailored to align with the governance threshold levels to ensure effort is right sized to ensure appropriate balance between engagement and speed.	Interviews for the three case studies highlighted inconsistent levels of stakeholder engagement across projects and between stakeholders and IPDR. Recording stakeholder activities would improve transparency and the evidence base for decision making at change panels.	Assessing Change	Recommended May 2026	1. Impact assessment and/or change paper templates are revised to demonstrate consultation activity. 2. Impact Assessment and Change Paper templates revised to include evidence of stakeholder engagement communicated to users.
7	A further independent review of the DSP's change	The new change management process is still embedding and only	Conclusions	Recommended	1. Subsequent Independent Report.

Ref.	Recommendation	Evidence	Report section	Priority and implementation timeframe	Exit Criteria
	management capability to be completed in 12 – 18 months' time, once the revised process is better embedded and a larger sample size of completed changes is available.	a very limited number of completed changes were available to assess its effectiveness.		July 2027	

2. Background

a) The Industry Partnership Digital Railway (IPDR) team is responsible for managing the Digital Signalling Portfolio's (DSP's) national plan to transition the railway to ETCS, coordinating activities across regions, operators and signalling partners to ensure a consistent and efficient rollout. It brings together the technical, operational and commercial elements needed for digital signalling, supporting fleet fitment, training, and lessons learned processes to enable successful migration to ETCS across the network.

b) Signalling renewals and enhancements within the rail industry are highly complex undertakings. Replacing existing conventional systems with the digital, radio-based European Train Control System (ETCS) seeks to enable a more sustainable and cost-effective signalling renewal programme, providing opportunities for a safer, greener, higher performing railway.

c) It is important to note the DSP was established in 2023 and the refreshed management of change process that was reviewed in this report, was approved in June 2025. After initial implementation, an online tool was used to implement this process in October 2025. Prior to June 2025 a legacy change management process had been used based on the NR/DfT Enhancements Change Control process, that was not reviewed by this IR.

2.1 Purpose of the review

a) Periodic Review 23 (PR23) set out the Office of Rail & Road's (ORR's) final determination of what Network Rail was expected to deliver with respect to its operation, support, maintenance and renewal (OSMR) of the network throughout Control Period 7 (CP7) to protect the condition and reliability of the network. Regarding the deployment of ETCS, the PR23 final determination stipulated that Network Rail:

   i) should continue to review the alignment between infrastructure renewals and fleet fitment;
   ii) must confirm the specific benefits that will be delivered in CP7 from the funding allocated to the digital signalling portfolio. This should include, but not be limited to, specific milestones Network Rail needs to achieve in each year of CP7 to realise the benefits associated with the portfolio; and
   iii) should produce a plan which shows clear alignment between portfolio activities, spend across programmes, milestone delivery and benefits realisation.

b) This review assesses how effectively change is currently being managed by the Digital Signalling Portfolio. The review considers whether the refreshed change management process, is sufficiently robust and adaptable to support the rising volume of activity expected in future control periods, consistent with the purpose of understanding how Network Rail identifies, assesses and communicates change across the portfolio.

2.2 Scope of the review

a) This report reviews how Network Rail manages change across the DSP, as set out in the scope document attached as Appendix 1, including how changes are assessed and how the impact and outcome of change is communicated to industry stakeholders. It seeks to:

   i) Provide the ORR and NR with an initial view of how effectively NR is aligning key initiatives in this area, e.g., fleet fitment and infrastructure renewals.
   ii) Assess how effectively Network Rail is engaging with industry stakeholders when assessing and implementing changes to the portfolio; and

iii) Provide insights for ORR and NR into further aspects of ETCS deployment where additional monitoring, assessments or reviews may be required.

b) The Independent Reporter has examined 10 primary lines of inquiry, as set out in the scope document, with the aid of three change events, selected as case studies to test the application of the change management process.

c) The three change events are:

CD-1023: E1 Passenger Workbank Update
CD-1038: West Coast North Delays, and
CD-1008: TRU Digital – Migration Strategy Changes

d) All three changes pertain to live projects that have a portfolio-wide impact, and all three are subject to the highest level of governance due to the corresponding impacts to the Portfolio's baseline documents and plans.

e) Each of these changes were identified by the DSP before the refreshed change management process was implemented as shown in the timeline of critical events presented in Appendix 2, which details the progression of each change through the process from identification within the legacy system, through to DSP post-change governance.

f) As a result of the transition to CORE, from the pre-existing change management process, some early change communication and assessment activity occurred within legacy systems and forums, with formal notification, assessment, and approval aligned to CORE governance once it was live. The timelines for CD-1038 (West Coast North Delays) and CD-1008 (TRU Digital – Migration Strategy Changes) span both the pre-existing change management process and the period following the CORE go-live date.

2.2.1 Change Reference CD-1023: E1 Passenger Workbank Update

Selection Rationale: This change represents a controlled scope and schedule re-forecast, where assumptions derived from the historic Train Fitment Model were replaced with validated operational data. It demonstrates how emergent changes are consolidated, assessed, and approved to protect schedule credibility, procurement planning, and portfolio forecasting within an existing CP7 funding envelope.

Change Description: A consolidation of 11 individual Early Warning Notices (EWNs) initially raised under the legacy change system that affect the Passenger workbank. The changes corrected and updated assumptions relating to fleet operating areas, fleet operators following cascades, fitment strategy, fleet volumes, and the introduction of additional fleets. These updates reflect validated stakeholder positions from TOCs, ROSCOs, and OEMs following IPDR-led engagement during CP7 Year 1.

Status – Approved by the DSP's Portfolio Direction Board fulfilling its role as on 1st July 2025. This DSP process was the only change management process necessary.

2.2.2 Change Reference CD-1038: West Coast North Delays

Selection Rationale: This change illustrates a strategic, delay-driven portfolio change, driven by external system readiness and market constraints. It demonstrates how schedule impacts are identified early, consulted widely, and held outside the baseline while undergoing assessment, particularly where changes materially affect dependencies across multiple programmes.

Change Description: Commissioning of the West Coast North Modernisation programme has moved from an assumed delivery window of CP7 to mid-CP8 (2028 to 2035), with the exact dates to be confirmed. This delay, informed by outputs from the West Coast North Industry Leadership Group, impacts ETCS fitment triggers, business readiness, market development, and wider portfolio sequencing.

Status – The WCN Programme Executive Board endorsed updated planning assumptions on 2 July 2025, following approval of the same at ILG in June 2025. The Portfolio's change process commenced thereafter, with a decision forecast to be confirmed by the Portfolio Direction Board fulfilling their role as Level 3 change control panel by the end of March 2026.

2.2.3 Change Reference CD-1008: TRU-Digital - Migration Strategy Changes

Selection Rationale: This case study demonstrates a sponsor-led scope and schedule change, developed through industry consultation and internal assurance before entering formal change control. It highlights how evolving programme strategy is translated into updated baseline assumptions and schedules.

Change Description: A revision to the TRU migration and driver training strategy, including removal of the Leeds overlay, alignment to Spending Review outcomes, and re-phasing of TRU activity following the TRU 2.2 re-baselining. These changes affect fitment scope, TCSF allocation, Portfolio Delivery Plan, and business readiness activities.

Status –TRU programme governance was completed. The Portfolio's change process commenced thereafter, with a decision forecast to be confirmed by the Portfolio Direction Board fulfilling their role as Level 3 change control panel by the end of March 2026.

2.3 Limitations to the report findings

a) The Independent Reporter has identified the following limitations and caveats that apply to the findings in this report:

   i) Noting that the refreshed management of change process was implemented by the IPDR only weeks prior to the commencement of the review, it should also be noted that the Independent Reporter initially proposed to review up to 10 change events. However, the sample size that supports the findings presented in this report was limited at the outset of the review to just three change events.

   ii) Of these, two had not yet fully completed the change process and remained in progress throughout the course of the review. It is recognised that the change management process needs time to embed and will continue to mature, meaning findings must be read in the context of a newly established and embedding process.

   iii) The DSP's Portfolio Delivery Plan (PDP) describes the DSP as encompassing:
   - Deployment schemes
   - Fleet fitment
   - Supply chain
   - Network systems
   - Innovation & efficiency
   - Sharing lessons learned and best practise.

   iv) Of the four currently active deployment schemes identified within the DSP PDP, the changes selected predominately impacted on two of those; West Coast North Modernisation (WCN) and TransPennine Route Upgrade (TRU).

v) Of the four fleet fitment programmes listed in the DSP PDP only one of the changes reviewed impacted the passenger fitment project. Whilst the change process applies holistically, the evidence reviewed applied to only a small proportion of the DSP scope and may not be representative of all areas.

vi) Similarly, stakeholders interviewed were proposed by NR and the ORR and therefore findings may not provide a true representation of stakeholder opinion.

vii) Over the 12-week timeframe of the review, the Independent Reporter was not offered the opportunity to observe a level 3 change control meeting, as this function is currently fulfilled as a component of the PDB's agenda (which only sits every 8 weeks), to observe this element of the change process.

viii) Over the 12-week timeframe of the review, the Independent Reporter was unable to observe a single change progressing through the full life cycle of the change management process to clearly evidence activity taking place at each stage.

3. Methodology

a) At the review commencement meeting between Currie & Brown, Network Rail and the ORR, the methodology depicted below was agreed.

Mobilise	• Agreed scope, methodology and specific changes that have informed the review • Access provided to relevant systems and receipt of key documents • Initial interviews scheduled with stakeholders
Evidence gathering	• Desktop review of key documents provided • Interviews with agreed stakeholders to understand both the process and the scoped changes in depth
Interim findings	• Present emerging findings, residual lines of inquiry and potential recommendations for discussion • Residual lines of inquiry answered
Report	• Draft report and recommendations issued to the ORR and NR • Comments provided by the ORR and NR, and discussed with the review team • Final report and recommendations issued

Figure 1: Review Methodology

b) Dividing the execution of the review into four phases ensured a clear and manageable approach that allowed for regular interface with the ORR and NR to keep all parties informed of progress throughout the review.

3.1 Mobilise

a) The mobilisation stage began with the commencement meeting, at which, the review methodology and schedule were agreed.

b) Given the recent implementation of the refreshed DSP change management process, it was agreed that a small sample of three changes would be used as case studies to inform the review. Those changes and their respective CORE reference numbers are:

   i) CD-1023: E1 Passenger Workbank;

   ii) CD-1038: West Coast North Delays; and

   iii) CD-1008: TRU Digital – Migration Strategy Changes.

c) It was further agreed that the review would focus exclusively on the DSP's change management process, although it was acknowledged that other change management processes may also apply where the change also impacted a deployment programme or the ORR.

d) The mobilisation phase concluded when the specific three changes were agreed, initial key documentation and systems access was provided, and stakeholder interviews were scheduled.

3.2 Evidence gathering

a) The evidence gathering phase commenced with review of documentation by the reporter team and concluded with the scheduled stakeholder interviews. The purpose of this phase was to understand:
   i) the DSP change management process as documented;
   ii) the specific changes scoped within the review;
   iii) how emerging changes are identified and treated in practice;
   iv) how change is communicated both during and following completion of the DSP change management process; and
   v) any identified deviation in practice from the documented process.

3.2.1 Desk-based review

a) The desk-based review included detailed examination of the portfolio baseline documents and additional supporting detail related to the three scoped changes. This review informed the planned direction of each targeted stakeholder interview.

3.2.2 Stakeholder interviews

a) Targeted interviews were arranged with stakeholders proposed by the ORR and NR which served to satisfy gaps in the review team's understanding following the desk-based review and to supplement that understanding with the experiences of those using and governing the change management process.

b) Interviews were conducted with Network Rail and ORR staff, with the support of Train Operating Companies (TOC), Freight Operating Companies (FOC) and Department for Transport (DfT) stakeholders, and provided valuable insights regarding:
   i) the nature of the three scoped changes, particularly as two of the three changes were progressing through the Change Assessment stage of the process for the duration of the review;
   ii) the challenges facing the IPDR in the context of managing change, both now and in future control periods; and
   iii) the approach to stakeholder engagement across both the DSP's activities and within deployment programmes.

c) The evidence gathering phase concluded when all stakeholders had been interviewed.

3.3 Interim findings

a) The review team recognised interim findings as they began to emerge during the stakeholder interviews and were fully considered soon after the final interview was completed.

b) Although it was recognised that the refreshed process had only recently been implemented, it was immediately apparent that the forecast time taken to complete the first four stages of the process for two of the scoped changes was too long.

c) The interim findings and potential recommendations were presented for discussion with the ORR and NR along with the residual lines of inquiry that remained. The discussion enabled the review team to clarify how the findings and the associated potential recommendations had been identified. The residual lines of inquiry were subsequently resolved with the DSP team to remedy the last gaps in understanding and to give clarity to the high-level structure of the report.

d) The interim findings phase concluded when all residual lines of inquiry had been satisfied.

3.4 Report

a) The report was produced across two iterations: a draft report that built on the interim findings previously presented, which was then refined following feedback received from the ORR and NR. The resulting final report that incorporated the feedback provided was then shared with the ORR and NR, thereby concluding the review.

4. Management of Change – an overview

4.1 The Digital Signalling Portfolio's Change Management Process

a) The move to national ETCS deployment introduces significant complexity across programmes, regions, fleets and supply chain partners, making a disciplined approach to managing change essential. The Digital Signalling Portfolio's (DSP) Management of Change process provides an appropriately structured framework, which is needed to maintain control, consistency and transparency as changes emerge across this complex landscape. It sets out how changes are identified, assessed and governed through a defined five stage process and a tiered governance structure, proportionate to the scale and impact of each change.

b) The IPDR team manages and coordinates the activities required to migrate Great Britain's railway from a conventionally signalled network to a digitally signalled one, working closely with industry partners through the DSP (Network Rail). The team manages change in accordance with the DSP's Management of Change process which was approved in June 2025. After initial implementation, the portfolio team moved to an online tool to implement this process in October 2025. Prior to June 2025 the portfolio team used a legacy change management process based on the NR/DfT Enhancements Change Control process, that was not reviewed by this IR.

c) The recently refreshed DSP management of change process was developed from the legacy processes sourced from past Network Rail programmes, such as Thameslink and the East Coast Digital Programme (ECDP). Interviewees working within the Portfolio acknowledged that the refreshed process has not been benchmarked against comparable processes in operation in other industries. More systematic benchmarking, against similar processes in use in organisations such as Deutsche Bahn or The Société Nationale des Chemins de fer Français could be undertaken and insights gleaned used to inform further continuous improvement activity.

d) Given its recency, there are a limited number of changes that have been processed exclusively under the new process. Most changes were initiated under the previous system, and therefore this is a major constraint on this review, limiting the volume of evidence available that underpins findings.

e) As part of the refreshed process, the DSP has introduced use of the Controls, Oversight Reporting and Execution (CORE) system, which provides a live, centrally accessible digital register of change for the portfolio.

f) The refreshed Management of Change process, which replaces the legacy change control processes, implemented at the Portfolio's inception, is an evolution of the previous process, structured into five discrete stages:

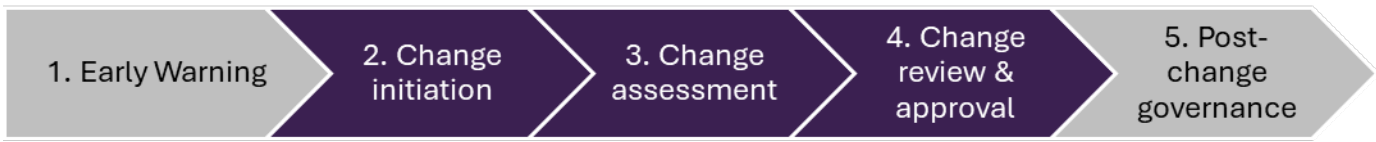


Figure 2: The five stages of the DSP's Management of Change process

g) In the IRs opinion, the five-stage process provides clear control of each change through:

i. Stage 1: Early Warning, where initial details of an emerging or potential change and its impact are captured as an Early Warning Notice (EWN).

ii. Stage 2: Change initiation, the EWN has been confirmed as resulting in a change, and so is entered into the change log and the requestor is issued an identification number for the corresponding change paper. This is a brief, and primarily administrative, process stage.

iii. Stage 3: Change assessment, where the impact of the change is assessed, including stakeholder consultation, and the change paper is developed further for consideration by the relevant change control panel.

iv. Stage 4: Change review and approval, where the change is considered by the relevant change control panel. Once a decision is confirmed, the requestor can enact the change.

v. Stage 5: Post-change governance, where any additional governance resulting from the change is completed. This may include budget transfer approvals and additional change processes required, such as the ORR's Managing Change process.

h) Change is governed though a tiered governance structure, where the treatment of change is dictated by a defined set of criteria and thresholds, designed to streamline governance and therefore support efficient delivery. These changes are then considered by the appropriate level of change governance, aligned with the thresholds defined in Figure 3.

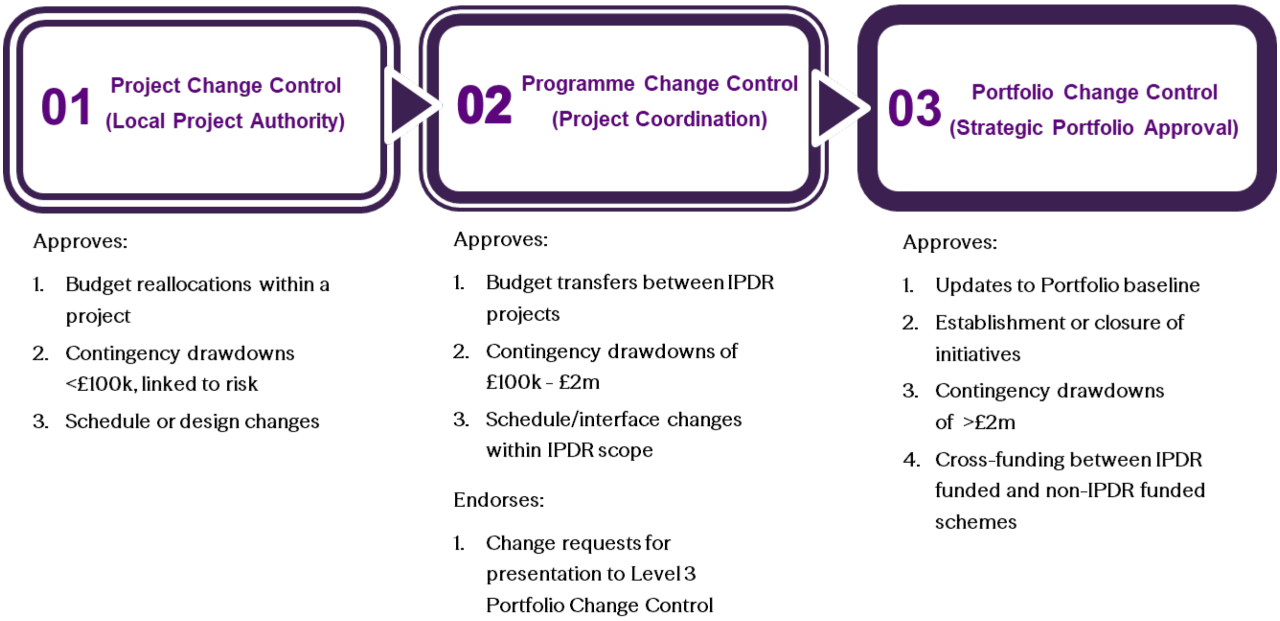


Figure 3: The DSP's management of change governance structure

i) Proposed changes applicable to IPDR-funded projects and programmes are categorised into these three distinct types, which dictates which governance arrangement applies:

Table 2: Relationship between types of change and levels of governance

Change type	Definition	Governance requirement
Type 1	Live project, with no portfolio impact	Levels 1 and 2 only
Type 2	Live project, with a portfolio impact	Approval at all levels required
Type 3	No live project, with a portfolio impact	Level 3 only

j) Given the complexities associated with the move to digital signalling and ETCS, it is possible that multiple change management processes may be required to formalise a single change, such as:

i. The process required by a deployment programme (e.g. West Coast North Modernisation) - to formalise the impact of a change as it affects that project or programme only, and which may include or be dominated by non-digital signalling-related elements,

ii. This DSP change management process as outlined in this report - to formalise the broader impacts of the change specific to the national move to digital signalling and ETCS, and
iii. The Office of Rail and Road's (ORR) Managing Change process - to gain approval for any change that affects Network Rail's expected deliverables in respect of its' operation, support, maintenance and renewal (OSMR) of the GB network during each control period.

k) The Portfolio's Management of Change process requires all applicable processes to be completed before a change can be acted upon. While the Independent Reporter agrees that this is aligned with leading practice, the sequential nature of these processes prolongs the total time taken to complete all change management requirements. We have observed an example where the DSP process alone will take circa ten months to complete, which, in our opinion, is excessive and likely to worsen as the volume of change increases over time.

l) The Independent Reporter acknowledges that the Portfolio has already identified opportunities for further continuous improvement, including a review of the governance structure thresholds depicted in Figure 3. As part of this exercise, the team should consider opportunities to streamline the process, particularly when the given change involves completion of multiple processes. These opportunities could include:
   i. Prompt completion of stage 1: Early Warning to capture the emerging change in an EWN, with the relevant change control panel making an informed decision to progress to Stage 2: Change Initiation to progress the change in line with the deployment programme;
   ii. Similarly, progressing to stage 3: Change Assessment in parallel with inter-related processes would better enable the Portfolio team to positively influence the change whilst also progressing the management of change process at pace;
   iii. Adopting a collaborative, rather than transactional, approach to stage 3: Change Assessment, to ensure assessments are considered both swiftly; and
   iv. If done well, stage 4: Change review and approval could complete one governance cycle after the local deployment programme's process.

m) The Independent Reporter acknowledges that not all changes will complete all five stages of the process. Further discussion regarding the treatment and rationale for potential changes that do not progress past the Early Warning stage can be found in the Endorsing and Approving Change – Ability to Reject Change section.

4.2 The effectiveness of the change management process

a) To assess the effectiveness of the change management process, the Independent Reporter proposed to review up to ten changes, however due to the recent introduction of the revised process and CORE system, it was agreed with Network Rail and the ORR that only three changes were to be reviewed. Whilst the Independent Reporter has provided professional judgement in the assessment of the process, it is acknowledged that there is a limited evidence base from which to assess its effectiveness.

b) The CD-1023 E1 Passenger Workbank Update change is the only change event examined to have completed the management of change process, albeit under the previous legacy system. It is positive to note that the process for this event was completed in 8 weeks, which is acceptable given the current cadence for change panel meetings.

c) When reviewing CD-1038 WCN Delays and CD-1008 TRU Digital – Migration Strategy Changes, the Independent Reporter noted and supports the concerns expressed by some interviewees regarding the protracted length of time taken to complete Stage 3: Change Assessment.

d) Current forecasts show that these two linked change events will take circa ten months to complete the DSP change process alone. Both are categorised as Type 2 (pertaining to live programmes and impacting the DSP) and therefore must be confirmed by each of the governance levels described by the process. The Independent Reporter considers this to be too slow for the process to be considered 'effective'. An extended duration between programme level approval and reconciliation by the DSP exposes the portfolio to the risk of different stakeholders working to different baselines.

e) The IR acknowledges that these changes have coincided with the development and implementation of the refreshed change management process, which replaced the legacy process, and therefore were likely to be protracted as a result.

f) However, it is the opinion of the IR that portfolio impacting changes, particularly where they require consideration by the Level 3 change control panel (currently fulfilled by the PDB), should continue uninterrupted and at pace, even when policies and processes are being reviewed and updated. In future, as the volume of change to be managed increases in line with the corresponding increase in works being delivered, it will be necessary for changes to complete the change management process more efficiently.

Recommendation 01:

Compress the overall timeline for the management of change by de-coupling the sequential nature of programme or regional level approvals followed by reconciliation by the DSP, and possibly the ORR, if applicable.

Exit criteria:

1. **CD-1038 and CD-1008 to have a decision confirmed by the Level 3 change panel at the March 2026 Portfolio Delivery Board meeting in accordance with stage 4 of the process: Change Review and Approval**
2. **Update the Management of Change process with guidance for timeframes to target a duration of 12-weeks for progression from Stage 2: Change Initiation to Stage 4: Change Approval.**

g) The Independent Reporter understands that the Portfolio team has grown organically since its inception, attracting passionate and competent resources who are bought into the goal of a national move to ETCS. DSP interviewees spoke of a stable team, with strong institutional knowledge, expertise and leadership, supported by constructive relationships with industry stakeholders.

h) Although roles and responsibilities are defined in the Portfolio Management Framework – baseline document B, which was approved in February 2025, it is evident that those with a longer history within the Portfolio are required to fulfil multiple roles, sometimes across both management and governance activities.

i) The risks associated with this potential conflict of interest are considered mitigated by the Portfolio by the expectation that the relevant parties will recuse themselves where necessary, the use of the consensus-based approach to making decisions and the intent to establish a dedicated Level 3 change control panel in 2026, separate from the PDB and with its own terms of reference. It is the opinion of the IR that this risk would be more appropriately mitigated by defining clear responsibilities held by the members of each panel.

Recommendation 02:

When setting up the Level 3 Change Control Panel separately from the PDB, the terms of reference for all panels should be updated to clearly set out who is responsible, accountable, consulted and informed (RACI) for each decision.

Exit criteria:

1. **Terms of reference for all panels should be updated to clearly set out who is responsible, accountable, consulted and informed (RACI) for each decision.**

j) The Portfolio benefits from strong relationships with critical friends both within the IPDR team and the stakeholder community. The IR learned at interview that these critical friends positively influence the identification, development and assessment of change.

k) Although the process would remain in place regardless of resource churn, there is a risk that change may not be identified as early and/or take longer to progress to a decision if relationships are not maintained.

l) A clear, documented succession plan is required to ensure that the loss of any such key individual(s) does not negatively impact the ability of the Portfolio to capture potential changes early or further reduce the level of influence held by the Portfolio, which will become more important as the volume of change to be managed increases over time.

Recommendation 03:

Implement a succession plan to maintain and build business resilience and continuity.

Exit criteria:

1. **A documented approach to succession planning is included in Baseline Document B – Portfolio Management Framework.**

m) The following sections describe the three changes in greater and considers the effectiveness of the process in managing the change in accordance with the five stages.

4.2.1 Timeline for processing change: CD 1023 - E1 Passenger Workbank Update

a) The E1 Passenger Workbank change emerged early in 2025 after multiple scope discrepancies were identified. Initially captured as 11 individual EWNs, these reflected updates to fleet assumptions, operating areas, fitment strategies, fleet volumes, and additional fleets identified through engagement with TOCs, ROSCOs, and OEMs. It was presented at the Level 2 change panel on 14th May and approved at Level 3 change control panel in July 2025.

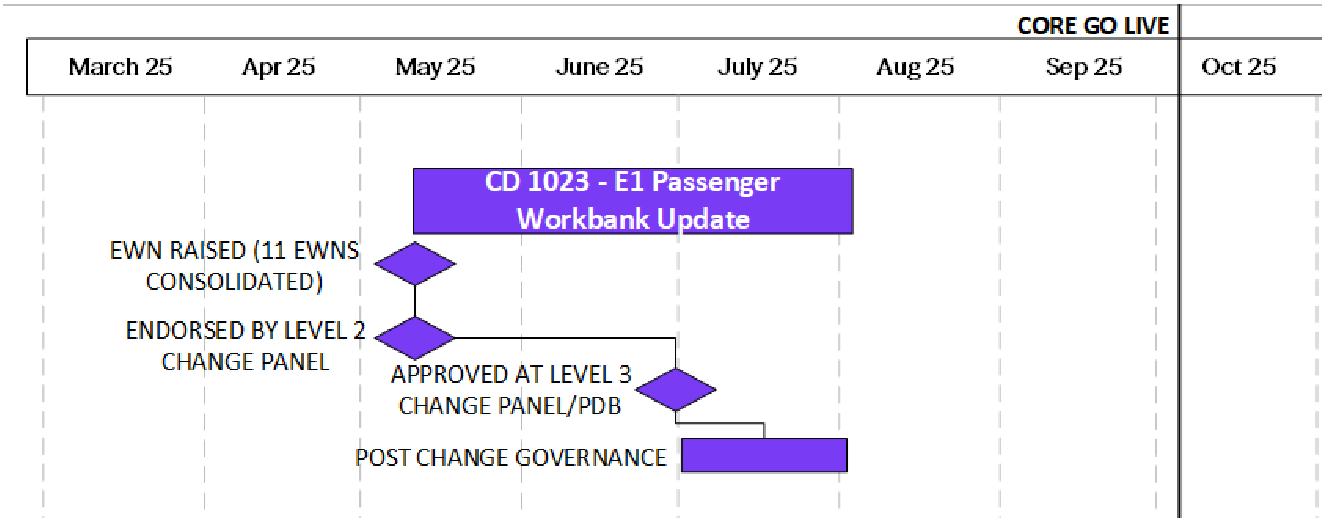


Figure 4: Timeline illustrating the progression of CD-1023 E1 Passenger Workbank

b) Due to constant rolling stock changes, managing individual vehicle updates through portfolio governance was considered impractical. The 11 EWNs were therefore consolidated into a single change, allowing a unified assessment of schedule, cost, and portfolio impacts. The change was endorsed at the joint Level 1 and 2 Change Control panel on 14th May 2025 and subsequently approved at Level 3 by the PDB on 1st July 2025.

c) Given the regular volume of change associated with rolling stock, updates are largely managed informally, with formal scope changes proposed to be submitted annually in aggregated form. The Independent Reporter supports the pragmatic grouping of changes to reduce administrative burden and notes that the progression of this change through governance was timely and considers it to be appropriate.

d) Following review of the CD-1023 E1 Passenger Workbank change paper, it is the opinion of the Independent Reporter that the 11 constituent changes were documented to an inadequate level of detail. This places the Portfolio at risk that future review, for the purpose of learning lessons or other audits, may be negatively impacted by the lack of clarity inherent in the documentation available to them.

e) The Independent Reporter notes, however, that this paper pre-dates the refreshed change management process and acknowledges the support now provided to change requestors to ensure change papers are submitted to the expected standard to support a robust change register.

4.2.2 CD 1038 - West Coast North Delays

a) The West Coast North (WCN) change emerged through engagement within WCN governance and industry forums. It was discussed by WCN governance in February 2025 and endorsed in principle by them on 31st March 2025. A target date, of June 2025, was initially set to have an EWN raised in the DSP legacy change management system.

b) Because both WCN and TRU are both major programmes that influence fleet readiness and infrastructure sequencing, their impacts needed to be assessed together for their combined effects on the DSP. As a result, progression of the two changes through the DSP change management process became linked. By June 2025, although TRU had raised an EWN, the programme was still developing and evaluating options to define the desired end state. This development work associated with the TRU change delayed progression of the WCN change until both changes were sufficiently mature to move forward with an EWN notified in CORE in October 2025.

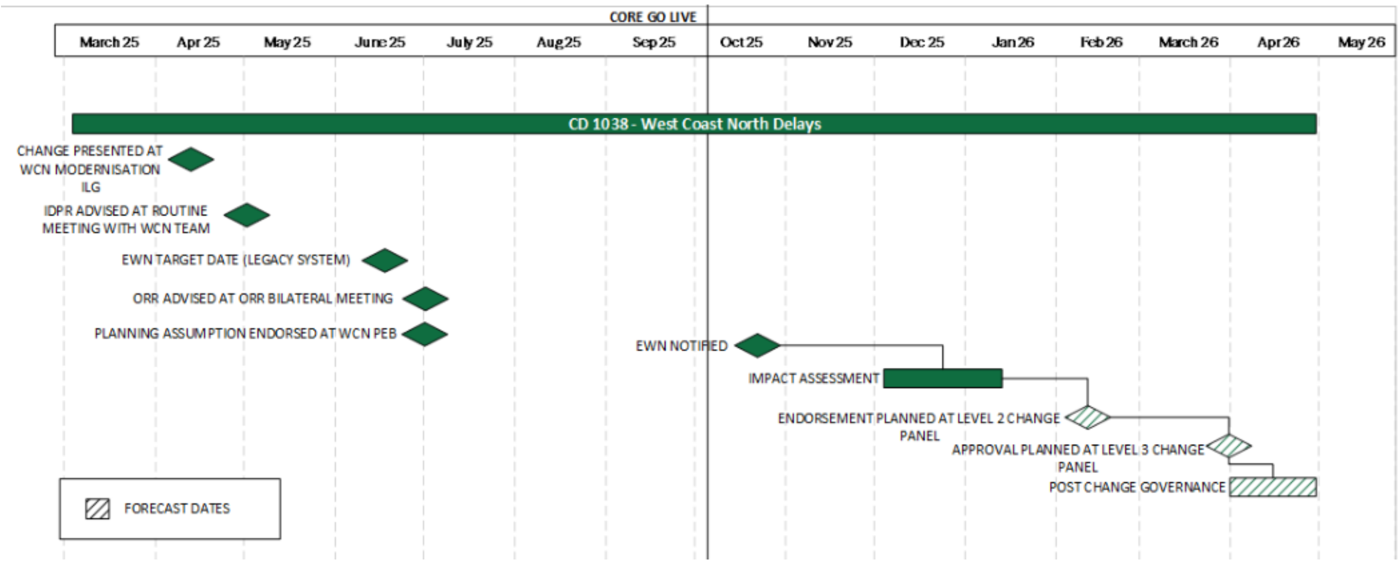


Figure 5: Timeline illustrating the progression of CD-1038 WCN Delays

c) Following CORE implementation, both the WCN and TRU change were formally raised as an EWN and entered Stage 3: Change Assessment. The assessment regarding the WCN change focused on the implications of deferring the first ETCS commissioning into mid-Control Period 8 (CP8), including impacts on fitment triggers, business readiness, market development, and wider portfolio dependencies.

d) At the time of writing, the change has not yet completed governance and was scheduled to be considered for endorsement by the Level 2 change control panel in February 2026. If endorsed, it is expected to be considered by the Portfolio Direction Board (PDB) fulfilling its role as Level 3 change control panel in March 2026. If approved, post change governance will be undertaken thereafter.

e) The timeline shows that WCN governance agreed the change circa ten months before its expected approval through DSP governance in March 2026. This delay largely resulted from linking CD-1038 (West Coast North Delays) with CD-1008 (TRU Digital – Migration Strategy Changes), due to their interdependencies and to enable the portfolio to review the combined impact of these changes. The timeline also shows the team was instructed to work to revised dates ahead of formal approval following the endorsement of planning assumptions by the WCN Programme Executive Board in June 2025.

4.2.3 CD 1008 - TRU Digital – Migration Strategy Changes

a) The TRU Digital change developed through a sponsor-led assurance route, reflecting the evolving TRU migration strategy, spending review outcomes, and the TRU 2.2 re-baselining exercise. Early assumptions regarding Leeds driver training overlays were reviewed and revised following consultation with industry stakeholders, including 10 no. IPDR engagements.

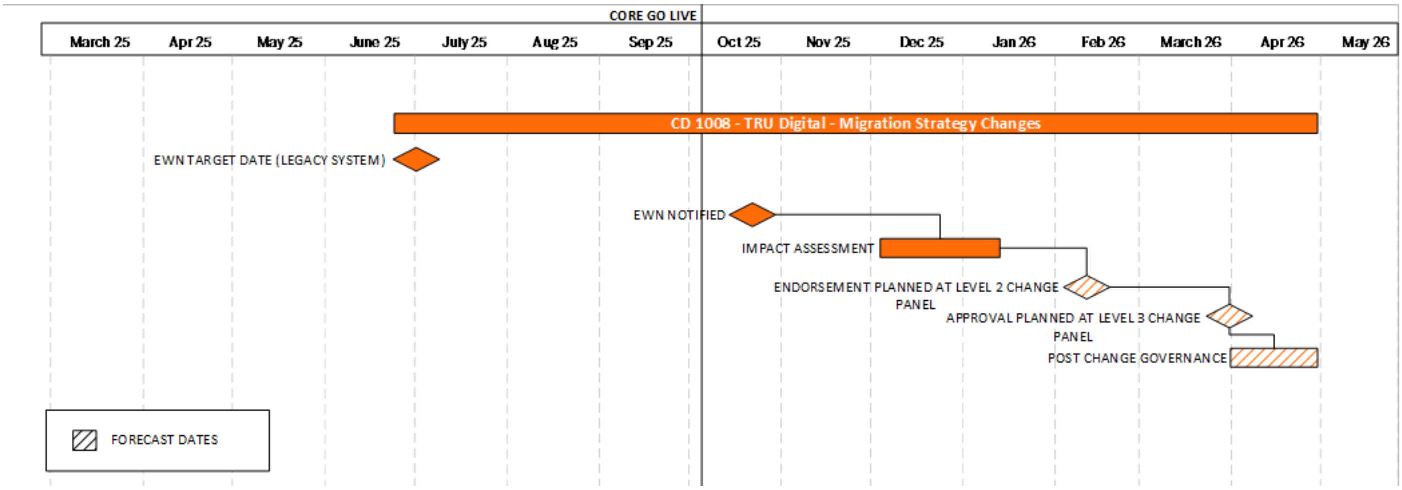


Figure 6: Timeline illustrating the progression of CD-1008 TRU Digital – Migration Strategy Changes

b) The proposed changes were reviewed and subsequently approved through the multi-layered TRU governance process, establishing sponsor alignment before entering formal portfolio change control. Following this approval, working in a sequential manner, an EWN was formally notified within the DSP process, and the change progressed into Stage 3: Change Assessment within CORE. The change is scheduled for Level 2 Change Control Panel in February 2026 and is expected to progress to Level 3 for approval and post-change governance in March 2026.

5. Identifying Change

5.1 Sources of change

a) The Digital Signalling Portfolio (DSP) operates within a complex environment involving numerous external parties. As a result, change is likely to emerge from sources external to the IPDR, including projects and programmes delivered by routes and regions, TOCs, FOCs, Rolling Stock Companies (ROSCOs), and the wider supply chain. Externally generated change is therefore a fundamental characteristic of the portfolio, reflecting the number and diversity of programmes, operators, regions, and suppliers involved in ETCS delivery.

b) Changes are often first raised with the IPDR team through ongoing liaison with stakeholders at programme delivery-focussed meetings, stakeholder forums and informal discussions. For example, early engagement between the West Coast Modernisation Programme and IPDR in March 2025 occurred three months before an EWN was raised under the DSP's legacy change management process.

c) Informal discussions are also reportedly used to socialise emerging changes, this reliance on informal mechanisms limits transparency and reduces assurance over the completeness and consistency of change reporting.

d) The IR understands that routine discussions also take place between the four Train Control Signalling Framework (TCSF) suppliers and the DSP's TCSF management team, providing additional avenues for identifying externally generated changes, but it should be noted that the IR has not had any direct visibility of changes identified by the supply chain as part of this review.

5.2 Capturing change

a) A recurring theme identified throughout stakeholder interviews is the prevalence and benefit of stakeholder engagement, which often leads to the early capture of changes in Early Warning Notices (EWNs). It should be noted that in this instance, EWN is distinct from the contractual mechanism of the same name, although these do still apply, separately, where contract management is undertaken.

b) The IR notes the anecdotal feedback from interviews indicating that the refreshed process has been well received by the IPDR team as demonstrated by EWNs required by Stage 1 being raised more promptly to capture emerging and potential changes.

c) The IR also noted, however, that EWNs are being currently raised inconsistently across the IPDR team. Some team members are capturing every potential change in an EWN from the point of identification and while the legitimacy of the change may be unclear; while others tend to raise the EWN once more detail is available and with the expectation that the change will progress through the full process.

d) Consistent, diligent and early capture of EWNs creates a richer and better-evidenced record of emerging and potential changes, including those that do not progress beyond Stage 1. Additionally, increased visibility of developing change provides valuable data on the Portfolio's ability to influence change at an early stage (see also Section 7 – Endorsing and Approving Change).

5.3 Integrating risk and change

a) It is the opinion of the IR that the IPDR team could strengthen the link between risk management and Stage 1: Early Warning to better identify and capture potential changes.

b) The DSP Risk Management Framework (RMF) states that the IPDR team "aims to operate a "no surprises" model, by promoting consistency and transparency of risk and opportunity information across the portfolio and DSP's delivery partners” [1]. However, the IR observed limited integration between the portfolio’s management of change process and the risk management framework.

c) This limits the DSP’s ability to “reduce and eliminate harmful threats and capitalise on opportunities”. Instead, it increases the risk that material changes are not consistently assessed, escalated, or reported through established governance channels may result in inconsistent treatment of change across programmes and reduced portfolio level visibility of emerging risks.

d) There is overlap between the two processes (the RMF prescribes risks treatment through a sequence of steps to 1) identify, 2) assess, 3) plan a response and 4) implement the response) enabling the team to use the risk management process and tools such as quantitative cost and schedule risk assessments to predict and therefore influence the outcome of change earlier.

e) The Risk and Value Manager has no defined role or responsibility in the RMF beyond being responsible for the risk policy and framework and risk governance and is currently required to be “informed” only of project, programme and portfolio risks. Increasing that to a “to be consulted” role in the RACI for Portfolio Risk and Programme/Project Risk where needed to provide proactive guidance regarding risk treatment and the corresponding management of change as a member of the combined DSP Level 1 and 2 change control panel.

Recommendation 04:

Integrate the DSP Risk Management Framework with the DSP Management of Change Process.

Exit criteria

1. **Revise the DSP Management of Change process and the DSP Risk Management Framework documents to show how the two management processes work together to identify, capture and assess change.**
2. **The role of the Risk and Value Manager is defined within the Risk Management Framework and are required to be more active by consulting on portfolio, programme and project risk, as documented in the RMF’s Risk RACI.**
3. **The Risk and Value Manager is invited to become a member of the combined DSP Level 1 and 2 change control panel.**

f) Utilising risk management within the change management process promotes consistent escalation, clearer accountability, and improved portfolio level visibility of risk impacts across cost, schedule, and scope. Integrating EWN and risk reduction practices further enhances auditability and supports proactive mitigation, reducing late-stage surprises and enabling more informed, evidence-based decision making.

g) Although the existing change paper template prompts the author to consider risk when formulating their change request, it could be improved by asking the author to demonstrate consideration of any known risk or opportunity that has been mitigated or enhanced, and any new risks or opportunities generated by the change solution recommended by the paper. This clarity will better inform decision makers and increase understanding and control of portfolio activities.

Recommendation 05:

The risk section of the impact assessment form and the change paper template should be revised to include detail regarding:

i. **Any previously identified risk(s) and/or issue(s) that are mitigated or enhanced by the proposed solution to the change; and**

ii. **Any new risks or opportunities not previously identified that arise from the proposed solution to the change.**

[1] Risk Management Framework: Digital Signalling Portfolio v1.1, IPDR, September 2024

Exit criteria

1. **Impact Assessment and Change Paper templates revised to include how known risk is impacted by the proposed solution to the change and any new risks created by the proposed solution to the change. The revised templates should then be communicated to users.**

6. Assessing Change

a) The IR has observed that changes originating from deployment programmes external to the IPDR are first treated through that programmes' own change management process, with decisions made by their corresponding governance board. The IPDR then applies its own process to assess the impact of these programme level decisions on the DSP.

b) In many cases, the portfolio has little choice but to adopt the changes agreed by these external programmes. This dynamic has contributed to an "accept and assimilate" approach to externally generated change, a pattern that in the opinion of the Independent Reporter may hinder proactive change management if it should become further entrenched.

c) Examples such as CD-1038 WCN Delays and CD-1008 TRU Digital – Migration Strategy Changes demonstrate that programme-level decisions are typically made first and are then reconciled by the DSP process later. In the case of these two linked changes, the process to assess the impact of the changes will have taken circa 6 weeks to complete.

d) It is the opinion of the IR that moving to an overlapping, but staggered, approach to change management would offer time benefits overall. While the programme process may need to be completed first, there is no reason why the portfolio process can't commence shortly after the programme makes the required change known, enabling collaborative impact assessment and consultation to take place largely in parallel. Once a decision is confirmed at the relevant programme governance board, the same can be sought through portfolio governance. In the examples above, the IR believes this would support reducing the duration of the portfolio-specific process.

6.1 Assessment by Network Rail at a regional level

a) From the review of changes such as CD-1008, inputs into and conclusions drawn from impact assessments and change papers are based on well-researched data typically verified by multiple sources and confirmed by multiple stakeholders. There are also exercises undertaken by workstreams where infrastructure and rolling stock fitment dependencies are cross-checked to identify any conflicts or constraints that might arise.

b) At a regional level, assessment of change impact relies on the involvement of workstream leads engaging with key stakeholders and using this feedback to populate the Impact Assessment template, which is then supplied to the change requestor to aid the development of the change paper. Key factors such as programme, cost, and specific considerations, including driver training and access arrangements are considered. The IR observed the detail provided in the Impact Assessment to be high-level which therefore requires the change requestor to correctly understand and interpret the comments provided.

6.2 Assessment by the Digital Signalling Portfolio

a) At the portfolio level, impact assessment is undertaken by sourcing and consolidating data from each workstream and critically appraising it, considering scheme sequencing, funding alignment, and consistency with on-board fitment and / or trackside scheme readiness.

b) This data is provided transactionally using a templated Impact Assessment form. The change requestor provides the relevant detail of the change to be assessed to each workstream lead, who responds with the perceived impact to their individual workstream.

c) The requestor must then consider the responses together when developing the change paper that will be used to obtain a decision.

d) The impact of a proposed change is reviewed during the Level 1 and 2 change panels, and at Level 3, Portfolio Direction Board (PDB). The supplied change paper informs the discussion, supplemented by any additional evidence available on CORE.

e) Consideration by the change control panel focusses on strategic alignment and deliverability rather than re-performing analysis previously undertaken to populate the change paper. Consequently, assessment at the portfolio level relies on timely, accurate and complete inputs provided in the Impact Assessment forms supplied.

f) The IR did not observe the full assessment of change stage and resulting change paper for either the CD-1038 or CD-1008 changes, but notes that this is a transactional approach to assessment, the appropriateness of which will be understood following the enactment of several changes.

g) From interview, it was apparent that some workstreams do not always believe an impact assessment is necessary for minor changes (e.g. small updates to vehicle fitment lists). Whilst this may be true in practice, the Independent Reporter is of the opinion that this should still be a decision made by the portfolio, and not by the individual workstream.

6.3 Informing wider planning

a) The DSP's change management process is effective at identifying first order impacts (e.g. cost, scope, schedule). The IR understands that identified misalignments or readiness issues are typically captured by the affected workstream and considered by the change panel, which results in the deferral or resequencing of work packages within the affected programme(s). This was evidenced by the CD-1023 E1 Passenger Workbank Update change which resolved 11 different corrections to the Passenger Workbank's planned fleet operation data, and therefore better ensures optimisation of ETCS retro fitment plans and value for money.

6.4 Consulting on change impacts

a) It should be noted that, at the time of this review, the Stakeholder Engagement approach document which the DSP intends to produce, had not yet been issued.

b) In practice, stakeholder engagement regarding a proposed change typically occurs at the workstream or programme level and targeted toward those stakeholders directly affected by the proposed change (e.g. suppliers, asset owners, TOCs, ROSCOs, FOCs).

c) Based on the limited visibility of stakeholder consultation, and statements made at interview, it is the opinion of the Independent Reporter that change-specific communication with non-Network Rail stakeholders tends to be more aligned with 'informing' rather than 'consulting'. TOC representatives reported insufficient involvement in certain change management processes. This was acknowledged at interview by the programme team when discussing the briefing offered to the supply chain to explain the implications of the CD-1038: West Coast North Delays change. While stakeholders were able to challenge the briefing details, the change was presented as though the decision had already been made.

d) Similarly, although the TCSF team has committed to provide a minimum 12 month lookahead of the allocated pipeline of work to each supplier to provide stability where possible, this is communicated via papers issued to the quarterly Framework Leadership Board to keep suppliers informed. Therefore, there is limited evidence available to the IR to suggest that the supply chain is consulted on change.

e) In contrast, some deployment programmes have taken positive steps to enhance consultation, such as where the TransPennine Route Upgrade (TRU) established an expert panel, led by an independent chair, to support the consideration of a significant decision. The expert panel included active consultation with representatives from each TOC and other stakeholders and was praised at interview for the way stakeholders were actively involved in and had the opportunity to influence the change management process.

f) The IPDR team should consider adopting a similar approach to strengthen stakeholder consultation in scenarios that would best add value, and as determined by portfolio leadership.

g) It is the opinion of the Independent Reporter that utilisation of an expert panel remitted to consult on the impacts of changes CD-1038 and CD-1008, would likely have resulted in a more rapid completion of the change process and improved relationships with impacted stakeholders.

6.5 How is feedback from consultation considered in assessing proposed change?

a) Workstream Leads consistently spoke of their confidence in having a constant appreciation for the challenges their respective stakeholders are facing, maintained via the robust level of varied engagement undertaken as part of typical monthly progress monitoring, reporting and liaison activities, however this could not be verified. Given the durations observed to complete the change management process, it is acknowledged that there would be ample opportunity to discuss changes throughout the process. However, as the volume of change increases over time, it is possible that stakeholder consultation may diminish due to limited capacity.

b) Feedback from these discussions is used by the Workstream Leads to validate assumptions and populate the Impact Assessment forms that inform the change paper submitted for a decision. There is currently no requirement within the impact assessment form or the change paper to record whether consultation with stakeholders has taken place. As a result, it is not always clear the degree to which stakeholder feedback has been obtained, considered or incorporated, which could result in a decision being made using incomplete or erroneous information.

Recommendation 06:

Amend the impact assessment and/or change paper templates to require demonstration of stakeholder engagement activities undertaken. This may be tailored to align with the governance threshold levels to ensure effort is right sized and there is an appropriate balance between engagement and speed.

Exit criteria:

1. **Impact assessment and/or change paper templates are revised to demonstrate consultation activity completed and communicated to users.**

7. Endorsing and Approving Change

7.1 Governance and assurance across the portfolio

a) The Portfolio operates a structured governance process for approving change, aligned with the requirements of the Digital Signalling Portfolio Management Framework, where the required level of oversight is determined by the scale and budgetary impact of the change.

b) As per Table 2 on page 12, Type 1 designated changes are considered by the joint Level 1 & 2 change panel, chaired by the Portfolio's PMO Lead, only. Whereas, by virtue of the higher degree of impact, Type 2 changes are subjected to a two-stage governance process, where initial endorsement is sought from the joint Level 1 & 2 change panel, followed by formal approval by the Portfolio Direction Board (PDB. Type 3 changes, which do not pertain to a live project, are considered by the Portfolio Direction Board (PDB) only.

c) Outputs from all established panels where change is considered and a decision made, are captured appropriately in meeting minutes, with relevant actions captured and tracked. The Portfolio's PMO team is responsible for making the necessary updates to the CORE system to reflect decisions made and thereby maintain the accuracy of the change register.

d) It is further noted by the Independent Reporter that the Portfolio intends to re-assess the Level thresholds as part of its Continuous Improvement plans to improve change efficiency by potentially enhancing approval powers held by the Level 1 and 2 change panel.

e) The PDB's responsibilities currently include those of the Level 3 change control panel. However, the Portfolio acknowledged at interview that the volume of change required to be managed has now increased sufficiently whereby establishment of a dedicated Level 3 change panel is warranted. The Independent Reporter supports this intent.

7.2 Controlled deviation from governance arrangements

a) The Portfolio's Management of Change process document clearly states that changes must be approved by the Portfolio before the change may be enacted, even where local programme approval may already have been confirmed.

b) The IR learned of a situation whereby a delivery team had been instructed to use planning assumptions aligned with the expected outcome of the currently unapproved change. The IR understands that this approach was agreed by the Portfolio following endorsement by the delivery programme's governance board and following discussion by the relevant panels including the Level 1 and 2 change panel, the local programme liaison meeting, and the recently refreshed Portfolio Delivery Board. The outputs of each of these meetings are captured in formal minutes, but the reviewer has not independently verified the capture of this specific agreement or its corresponding instruction to the relevant delivery team(s).

c) While the IR acknowledges the need to balance pragmatism with the guardrails inherent in governance processes, and that the appropriate decision makers applied their professional judgement in this case, the IR encourages the Portfolio to limit instances where such concessions are made. If it should become a common occurrence, such instructions will subvert the formal governance process, may undermine the change management process itself and risks stakeholders losing confidence in both the validity of the Portfolio's plans and potentially the Portfolio itself. Instead, focus should remain on the consistent and timely consideration of change to ensure that pre-emptive decisions like this are not necessary.

d) The PDB is chaired on a rotating basis by the Senior Responsible Owners from both Network Rail and the DfT. Further to earlier comments regarding roles and responsibilities, it was stated at interview that on occasion, it is necessary for members of the Portfolio team to assume the responsibility of chairing the PDB when delegated by the Network Rail SRO.

e) While the Independent Reporter is comfortable with the reality that delegation of responsibility is often required, it is possible that this may therefore require certain individuals to fulfil multiple roles throughout the process. For example, a change requestor who has prepared and submitted a specific change paper may be requested to preside over the governance meeting at which a decision is to be made. While the Portfolio Management Framework sets out a decision by consensus approach, it was stated at interview that agendas would be rearranged to remove that conflict of interest when necessary. It was not possible for the Independent Reporter to verify how this would be managed in practice. This approach may be manageable in the current environment, but the Independent Reporter notes that, as the volume of change increases, this may prove more difficult and may result in prolongation of the change management process for these specific requests.

f) For the governance approach to be considered appropriate by the IR and ready for the rapid increase in volume of change , roles and responsibilities should be clarified to eliminate the risk of conflict of interest for decision-makers, the dedicated Level 3 change control panel should be established as intended, and the duration required to consider a Level 3 change reduced to 12 weeks to limit the need to make pre-emptive instructions to delivery teams. Progress should be validated at a subsequent review of the Portfolio's Change Management Capability as per Recommendation 01.

7.3 Rejecting proposed change

a) At interview, it was consistently stated that the Portfolio has limited influence over change, particularly where it emerges outside the Portfolio. One external stakeholder went further to state that, in their opinion, no circumstance exists where the Portfolio could legitimately reject a change, given the inter-related accountabilities and funding arrangements in place to deploy ETCS nationally.

b) Following further investigation, the Portfolio team confirmed scenarios where a change emerging from within the Portfolio may be rejected including, but not limited to:

   i. Any scenario that constitutes a breach of investment and/or commercial governance,
   ii. Any scenario that, at face value may make sense for a particular deployment project or programme, but which would cause an unacceptable impact to another dependent project or programme,
   iii. Technical or system integration issues associated with products other than the specified product, and
   iv. Proposed use of a product whose performance had not been validated by the National Test Centre.

c) When changes emerge outside of the Portfolio itself, where influence is noted to be more limited, the Portfolio confirmed the dominant approach involves the relevant Client Leads and other Portfolio leaders leveraging their relationships and expertise as required to mitigate the risk of change. This can result in the change either being dealt with before being raised as an EWN in the system or, where an EWN is raised, being rejected ending the process at the end of the first stage.

d) The Independent Reporter notes that instances of rejected changes are recorded in CORE where they apply to events that have commenced the change management process, which is appropriate and aligns with earlier comments regarding the benefit of maintaining a complete change register.

8. Communicating Change

8.1 Communicating a potential change

a) It was observed that potential changes are frequently considered, assessed, and in some cases concluded at programme or regional level prior to being formally reviewed at portfolio level. For example, early engagement between the West Coast Modernisation Programme and IPDR in March 2025 occurred three months before an EWN was raised under the legacy DSP process.

b) The Independent Reporter acknowledges and supports the anecdotal evidence that the Portfolio is encouraging the use of EWNs to ensure earliest capture of potential change, which can then drive communication through the Client Leads and Portfolio leadership as required.

8.2 Communication during the change management process

a) Between March and October 2025, IPDR held 14 meetings with WCN, in addition to attending WCN senior leadership and governance meetings covering a range of topics. Similarly, over the same period, IPDR had 10 meetings with TRU, in addition to regular attendance at the TRU Digital Programme Steering Group and Working Group, TRU Business Change Working Group and TRU Digital Driver Training Task and Finish Group. This shows there is strong engagement with major programmes, and it also demonstrates that the IPDR is likely to be aware of an emerging change before an EWN is raised in CORE.

8.3 Communicating a decision

a) Once a change is approved through the DSP's governance structure, typically at the Portfolio Direction Board or a delegated authority, its successful implementation depends on clear and consistent communication across the DSP and the wider industry. Given the complexity of ETCS deployment and the many interdependencies between programmes, operators and suppliers, effective communication of an accepted change is essential to maintain alignment and prevent divergence from the intended portfolio baseline.

b) Approved changes are formally captured within CORE, which now operates as the DSP's live and centrally accessible change register. CORE provides the traceability that has historically been difficult to maintain when decisions were communicated informally or relied on individual relationships. The update of the change record within CORE signals the formal close of the governance process and ensures a single source of truth for subsequent implementation

c) Following approval, the relevant changes are reflected in the baseline documents the change relates to (e.g. baseline vehicle list, portfolio delivery plan etc.) and then to the corresponding project and programme remits and other documentation.

d) Once recorded, the IPDR team communicates the approved change to delivery teams, programme leads, and other relevant governance forums, which typically includes issuing a structured update summarising:

   i. the approved scope of the change

   ii. the rationale and impact assessment outcomes

   iii. changes to programme baselines, milestones, or dependencies

   iv. required actions and responsible owners

e) This stage is essential in a governance environment where multiple digital initiatives operate concurrently and where misalignment can occur if communication is incomplete or inconsistently cascaded.

8.4 Communicating a decision to the supply chain

a) Once a change is accepted, supply chain partners, including OEMs, framework suppliers, assurance bodies, and integrators, must receive clear and actionable instructions. During the review, interviewees noted that the maturity of this step varies, with some communication remaining informal or dependent on individual Programme Managers or Engineers to cascade details. As the DSP scales, reliance on “soft power” and personal relationships will become increasingly unsustainable.

b) Although the IR could not observe this element of the process, we understand that the change process concludes only once stakeholders acknowledge the change and implementation evidence is captured in CORE. Although the process defines this requirement, the DSP is still in the initial stages of embedding these behaviours consistently. Ensuring that changes are not only communicated but understood and actioned will become increasingly important as more ETCS programmes enter delivery.

9. Implications of Change

9.1 Managing requirements

a) Requirements management is an element that flows through the end-to-end change management process, strengthening as the change moves through the five stages of the process.

b) The implication to requirements by a change must be documented in the change paper template. Tab "6. Baseline Docs & 7. Other" of the template requires the change requestor to specify which of the Portfolio Baseline Documents must be updated if the change solution is approved. This has been verified on review of the single change paper provided for CD-1023 E1 Passenger Workbank Update which demonstrates the following must be updated:

   i. Portfolio Delivery Plan

   ii. Portfolio Delivery Schedule

   iii. E1 – Rolling Stock Workbank (Passenger)

c) Once changes are approved, new or updated requirements are captured through post-change governance, this involves formally recording the decision within CORE, assigning, and tracking actions, updating the relevant baseline documents as required, refreshing risks and ensuring implementation is evidenced through CORE and ongoing governance. This provides a clear audit trail from approved change to updated delivery requirements avoiding informal scope drift.

d) The Network Rail Portfolio Director is responsible for managing the system integration requirements, and it should be noted that the Portfolio is not accountable for the management of all requirements as system and technical requirements are managed by Network Rail's System Authority.

e) There is an existing action from the ORR as raised in a previous Independent Reporter review on requirements management across the portfolio, which will be complete by end of 2026. The nature of this action is unknown to this Independent Reporter and so we are unable to offer an opinion of the adequacy or likely impact of it, however, this would be reviewable upon completion of the stated action(s).

9.2 Opportunities management

a) A high performing change management process is fundamental to facilitating the identification and exploitation of opportunities. Closer integration of this process with the risk (and opportunity) management process will help facilitate the structured identification and management of opportunities, as described in Recommendation 04.

b) It is the view of the Independent Reporter that, at this stage of the Portfolio's activities, opportunity management is primarily delivered through risk mitigation and avoidance of disbenefits. The key example of this is the Portfolio's efforts to maintain an accurate view of vehicle fitment and the corresponding signals away and FiC requirement dates, which ensures best alignment of train fitment and infrastructure readiness. It also maximises efficient use of public funds.

c) Additionally, the Independent Reporter is aware that the 'solve once' workstreams champion development and share industry ETCS knowledge. This was not directly assessed as part of this review as this did not apply to the scoped changes.

d) A fundamental mechanism to unlock opportunities and improve performance is through robust identification, capture and dissemination of lessons learned. We understand from our discussions with various DSP PMO members, that lessons learned are planned to be captured at the portfolio level. The Portfolio team is also reliant on lessons that have been learned by regional programmes, such as ECDP, and supply chain delivery partners however they have no mandate under current contractual arrangements to compel the lessons to be shared. Instead, it must rely on the strength of its relationships with the relevant parties to glean the lessons available. It is the IR's opinion that adopting more collaborative ways of working as proposed earlier in the report will better support the organic transfer of lessons learned by others, without a need for contractual mechanisms.

9.3 Continuous Improvement

a) We observed that continuous improvement opportunities were being self-identified by the IPDR team throughout the course of the review and are documented in the minutes of the meeting where the activity is identified. The Independent Reporter did not observe any method or plan which drew all these activities together to allow their implementation to be tracked which in the IRs opinion, would be beneficial to support timely implementation and monitoring.

b) Planned continuous improvement activities identified by the Portfolio and supported by the Independent Reporter include:

  i. The establishment of a dedicated Level 3 change control panel separate from the PDB;

  ii. Re-evaluation of the thresholds that dictate the Change Management governance levels (see Figure 2) to improve change efficiency by potentially enhancing approval powers held by the Level 1 and 2 change panel;

  iii. Suggested future greater involvement of risk managers in the change process; and

  iv. The renaming of Type 1, 2 & 3 changes to A, B & C.

9.4 Outputs, Outcomes and Benefits

a) Implementation of Recommendation 01, regarding the timelier processing of change, would underpin accurate benefits tracking at Portfolio level. Currently, in the case of change CD-1038 West Coast North Delays, the protracted change management process would have generated a significant misalignment between delivery plans and reality, had the instruction to adopt the assumed revised dates not been given (see Endorsing and Approving Change – Working outside change governance).

b) Approved changes are reflected in the DSP's Integrated Portfolio Schedule and associated documentation, ensuring portfolio plans remain aligned with revised delivery assumptions. Schedule updates provide clear visibility of how changes affect milestone delivery across the wider portfolio and are communicated to relevant internal and external stakeholders.

c) We note that the Portfolio team has acknowledged that post-change activities are not set out in detail within the current process, however, in practice this would involve formally recording the decision, assigning and tracking actions, updating the portfolio schedule, baseline documents and systems where required, refreshing risks, and ensuring implementation is evidenced through CORE and ongoing governance.

d) The Portfolio Benefits Realisation Plan should summarise how and when the benefits related to this portfolio are expected to be realised and the outputs and outcomes to be achieved. This should draw on information contained in the Benefits Realisation Plans of the individual programmes within the portfolio, and their respective Benefit Maps. Benefits Realisation Plans should include the identification, definition, planning, tracking, review, and realisation of business benefits.

e) According to the Portfolio Management Framework, the Portfolio Benefits Realisation Plan is captured within the DSP Benefits Management Approach, which is reviewed annually. The latest iteration of this, however, was not made available to the Independent Reporter. As a result, the Independent Reporter could not verify that the impact of change on benefits, outputs and outcomes is being effectively managed.

10. Conclusions

a) In conclusion, it is the opinion of the Independent Reporter that the Digital Signalling Portfolio's refreshed change management framework provides a sound foundation but remains in the early stages of embedment.

b) The evidence reviewed indicates that while the process is well-structured and aligned to recognised leading practice, its effectiveness is currently limited by lengthy decision timelines dictated in part by sequential rather than parallel programme and portfolio processes, and inconsistent opportunities for stakeholders to influence change.

c) The IR considers that reducing the duration of the portfolio-level process, strengthening the link between risk management and early identification of change, and formalising governance arrangements, particularly through the introduction of a Level 3 Change Control Panel, would materially improve the Portfolio's ability to manage rising volumes of change in future periods.

d) The IR also observes clear opportunities to enhance stakeholder consultation, drawing on positive examples from elsewhere in the industry.

e) Overall, the IR recommends that, following a further period of embedment and evidence of post-change implementation, the process should be subject to a future independent review to confirm its maturity and effectiveness in practice.

Recommendation 07:

A further independent review of the DSP's change management capability to be completed in 12 – 18 months' time, once the revised process is better embedded and a larger sample size of completed changes is available.

Exit criteria:

1. **Subsequent Independent Report completed.**

11. Recommendations

Ref.	Recommendation	Evidence	Report section	Priority and implementation timeframe	Exit Criteria
1	Compress the overall timeline for the management of change by de-coupling the sequential nature of programme or regional level approvals followed by reconciliation by the DSP, and possibly the ORR, if applicable.	The overall timeline to process CD-1038 and CD-1008. An extended duration between programme level approval and reconciliation by the DSP exposes the portfolio to the risk of different stakeholders working to different baselines and potentially creates an environment where it may be necessary to instruct a team to progress on the assumption that a change will be approved ahead of approval from the applicable change panel. As observed in section 'Working outside governance' para (b). Improved timelines are necessary to ensure sufficient capacity to manage the significant forecast increase in volumes.	Management of Change – an overview	Critical April 2026	1. CD-1038 and CD-1008 to have a decision confirmed by the Level 3 change panel at the March Portfolio Delivery Board meeting in accordance with stage 4 of the process: Change Review and Approval 2. Update the Management of Change process with guidance for timeframes to target a duration of 12-weeks for progression from Stage 2: Change Initiation to Stage 4: Change Approval.
2	When setting up the Level 3 Change Control Panel separately from the PDB, the terms of reference for all panels should be updated to clearly set out who is responsible, accountable, consulted and informed (RACI) for each decision.	Key individuals were observed taking on multiple roles across management and governance activities, highlighting the need for a clearly defined RACI within updated Terms of Reference to ensure transparent and consistent and decision-making.	Management of Change – an overview	Recommended August 2026	1. Terms of reference for all panels should be updated to clearly set out who is responsible, accountable, consulted and informed (RACI) for each decision.

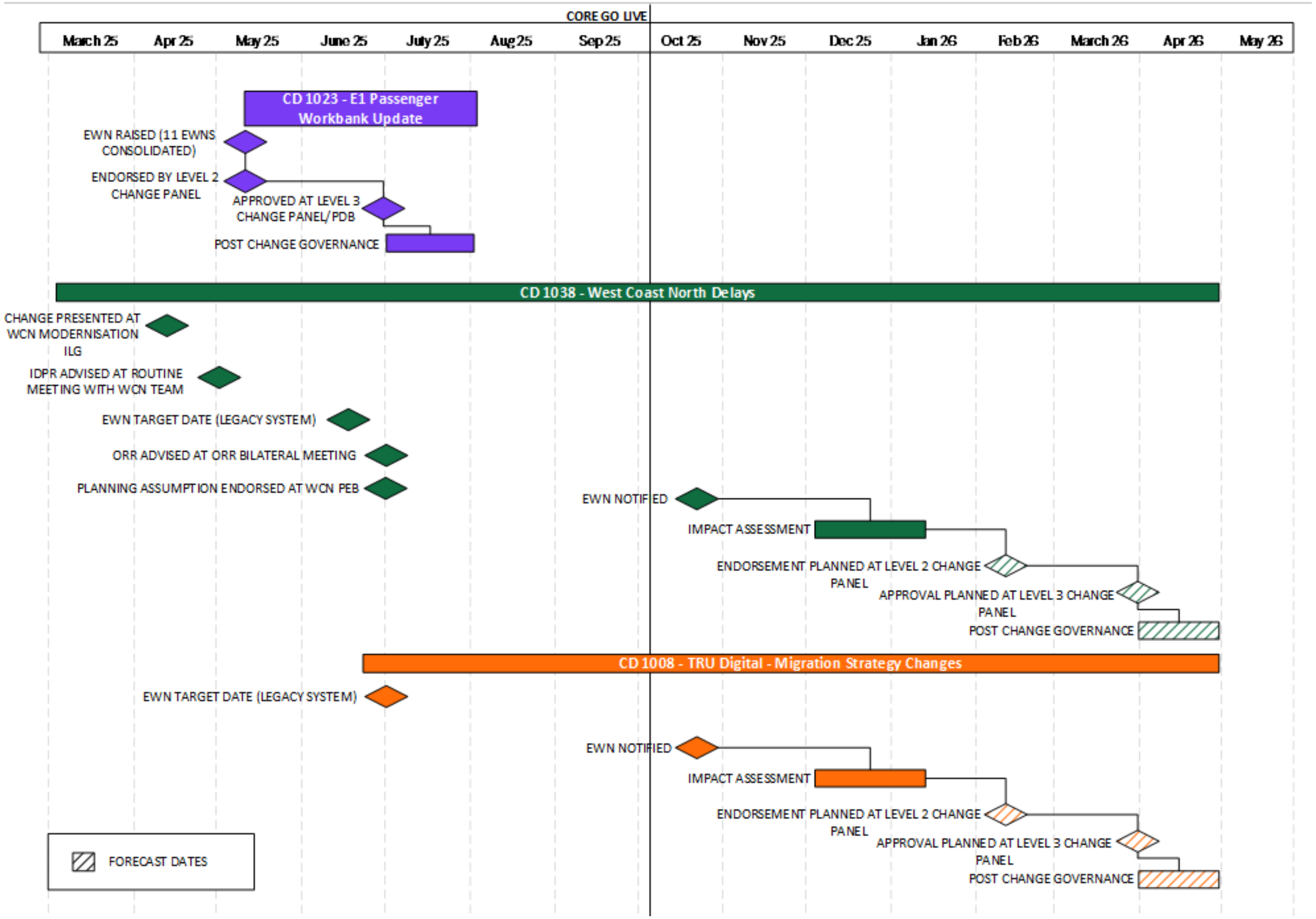
Ref.	Recommendation	Evidence	Report section	Priority and implementation timeframe	Exit Criteria
3	Implement a succession plan to maintain and build business resilience and continuity.	Key individuals were observed fulfilling multiple roles creating a risk of perceived or actual conflicts of interest, requiring ad-hoc agenda reshuffling or recusal to manage conflicts. As the volume of change increases, this mitigation becomes harder to maintain, and the lack of formally documented guardrails may prolong the process and undermine confidence in governance.	Management of Change – an overview	Recommended August 2026	1. A documented approach to succession planning is included in Baseline Document B – Portfolio Management Framework
4	Integrate the DSP risk management framework with the DSP management of Change Process.	The review found that the risk and change management processes remain only partially integrated, as evidenced by documentation and interview feedback, indicating the need for a more unified approach	Identifying Change	Recommended August 2026	1. Revise the DSP Management of Change process and the DSP Risk Management Framework to show how the two management processes work together to identify, capture and assess change. 2. Define the role of the Risk and Value Manager within the Risk Management Framework and consider increasing their responsibility to Consult in the Risk RACI for Portfolio Risk and Programme/Project Risk. 3. The Risk and Value Manager is invited to become a member of the combined DSP Level 1 and 2 change control panel.

Ref.	Recommendation	Evidence	Report section	Priority and implementation timeframe	Exit Criteria
5	The risk section of the change paper template should also be revised to prompt inclusion of detail regarding: i. Any previously identified risk(s) and/or issue(s) that are mitigated by the change; ii. Any previously identified risk(s) where the likelihood and/or potential impact of the risk is increased because of the proposed solution to the change; and iii. Any new risks not previously identified resulting from the proposed solution to the change.	The current change paper and impact assessment templates do not require authors to explain how existing risks are affected or whether new risks arise, resulting in incomplete risk information that limits consistent assessment, escalation and portfolio-level visibility of emerging risks	Identifying Change	Recommended May 2026	1. Impact Assessment and Change Paper templates revised to include how known risk is impacted by the proposed solution to the change and any new risks created by the proposed solution to the change. The revised templates should then be communicated to users.

Ref.	Recommendation	Evidence	Report section	Priority and implementation timeframe	Exit Criteria
6	Amend either the impact assessment or change paper templates to require demonstration that appropriate stakeholder engagement activities have been undertaken. This may be tailored to align with the governance threshold levels to ensure effort is right sized to ensure appropriate balance between engagement and speed.	Interviews for the three case studies highlighted inconsistent levels of stakeholder engagement across projects and between stakeholders and IPDR. Recording stakeholder activities would improve transparency and the evidence base for decision making at change panels.	Assessing Change	Recommended May 2026	1. Impact assessment and/or change paper templates are revised to demonstrate consultation activity. 2. Impact Assessment and Change Paper templates revised to include evidence of stakeholder engagement communicated to users.
7	A further independent review of the DSP's change management capability to be completed in 12 – 18 months' time, once the revised process is better embedded and a larger sample size of completed changes is available.	The new change management process is still embedding and only a very limited number of completed changes were available to assess its effectiveness.	Conclusions	Recommended July 2027	1. Subsequent Independent Report.

Appendices

A1 - Timeline illustrating the progression of the three scoped changes through the change management process



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150 Holborn
London
EC1N 2NS
UK

+44 20 7061 9000

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