



Eastern Region's Readiness for ISO55001 Alignment

Targeted Assurance Review

23 June 2021



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Acronyms and Abbreviations

CP6 - Control Period 6

ORR – Office of Rail and Road

DEAM – Director of Engineering and Asset Management

IAM – Institute of Asset Management

AMS – Asset Management System

TAR – Targeted Assurance Review

Definitions

Descriptor	Detail
ISO 55001	ISO 55000 is a series of International Standards for Asset Management. ISO55001 defines the requirements for management system for asset management. Therefore, in in this report the international standard is referred to generally as ISO 55001.
Control Period	Control Periods are the 5-year timespans into which Network Rail, works for financial and other planning purposes.
Putting Passengers First	<i>Putting Passengers First</i> (PPF) was a Network Rail internal business restructuring programme which ran from September 2018 – December 2020. It saw the creation of five devolved regional business units within Network Rail to increase route capabilities locally as well as to improve relationships with customers and stakeholders.
Asset Management System	The management system for assets is termed as Asset Management System. It provides a framework to establish asset management policies, objectives, processes and governance, and facilitates an organisation’s achievement of its strategic goals.
Asset Management Capability	The extent to which an organisation has developed its people, processes, technology, leadership and culture in Asset Management to enable the effective and efficient development and delivery of asset management plans and objectives, and their continual improvement.

1. Executive Summary

In our CP6 determination we stated that as a minimum, each Network Rail route is required to demonstrate to our satisfaction that it is operating in accordance with the requirements of ISO 55000 (Asset Management Standard) by the end of March 2021.

Following Network Rail's Putting People First (PPF) reorganisation with devolution and regional responsibility at the front of its new operating model, the ownership of alignment to ISO 55001 now lies with five devolved regions.

We wanted to seek assurance on Network Rail's devolved regions' commitment regarding asset management improvement and its readiness to demonstrate alignment to ISO 55001. We therefore carried out Targeted Assurance Reviews (TARs) on this subject in each region and this report summarises the status of the Eastern region.

This assurance review finds that Eastern region is still largely in the 'developing stage' of its asset management capability improvement journey, and therefore was not able to demonstrate to our satisfaction that they were working in accordance to ISO 55001 by the end of March 2021. Network Rail was first advised of the requirement in our draft determination published in June 2018. It is therefore of concern that this milestone was missed.

Eastern region's recently commissioned gap analysis shows that the region meets the required standard in only 6 of the 27 elements of ISO 55001. The maturity scores on the majority of the remainder elements indicated that it is still in the developing stage. Significant weaknesses were in the areas of competence, information requirements and non-conformity & corrective action.

There is recent momentum for improvement in the region and it has now planned to improve its maturity to achieve compliance with ISO 55001 by 2022. If Eastern successfully implements the plans it has developed, we feel that this new date is achievable, albeit a year later than should have been the case.

To this end, we recommend that the Eastern region:

- Continues its commitment to the delivery of the improvement plan by the target milestone dates, and to provide an update to ORR in October/November 2021; and
- Demonstrate that it has met the requirements necessary to achieve certification to ISO 55001 by the end of March 2022 at the latest.

2. Introduction

2.1 Purpose

This review was to determine if Network Rail's regions had met the PR18 determination requirement to demonstrate that it is operating in accordance with the requirements of ISO 55000 (Asset Management) by the end of March 2021¹

This report provides the findings of the TAR carried out in the Eastern region.

2.2 Background

Maintaining and renewing the network in the short-, medium- and long-term to meet reasonably foreseeable future demand for railway services is one of Network Rail's key obligations, as set out in its network licence, in accordance with best practice and in a timely, efficient and economical manner.

At the beginning of CP6, the local ownership of alignment to ISO 55001 and commitments rested within each of Network Rail's eight route strategic plans, reflecting the organisation structure as it was prior to PPF.

In the first phase of Network Rail's devolution journey, five new regional organisations were established in June 2019, which took on more accountabilities including the ISO 55001 alignment.

Though the final determination required the routes to demonstrate the attainment of requirements by March 2021, the routes and regions set varying target dates in their strategic plans.

Eastern Region is one of Network Rail's five regional operating units and it covers the geographical area of what were previously known as the Anglia route and the London North Eastern (LNE) & East Midland (LN&EM) route.

The Anglia Route, in its Route Strategic Plan for Control Period 6 (version 3.0) dated March 2019, stated to develop the Anglia asset management capabilities for maintenance operations and renewals activities to meet the requirements of ISO 55000.

¹ Clause 2.90 <https://www.orr.gov.uk/sites/default/files/om/pr18-final-determination-review-of-network-rails-proposed-costs.pdf>

The LNE&EM route stated to improve its asset management processes and arrangements with the ultimate aim of achieving accreditation to ISO 55001.

The Eastern region's Regional Strategic Plan, produced following devolution, reflects the approach set out earlier in the LNE's Route Strategic Plan. It set out the key areas which it is expected to focus on to align within ISO 55001 including the following:

- asset Management decision making;
- organisational effectiveness;
- business planning; and Delivery Optimisation and Effectiveness to improve financial accountability and controls; and
- commercial acumen and control over procurement and supply chain.

Irrespective of a region's chosen approach and own set target, ORR expected the region to demonstrate its achievement of the final determination requirement.

2.3 Scope

The objective of the review was to understand the organisation's progress on asset management capability improvement and its current level of alignment with the ISO 55001 requirement, the gaps between the current state and its desired level, planned improvement initiatives and the timescale for implementation.

To complement the need to improve asset management capabilities, an effective Asset Management System (AMS) needs to be embedded to provide a framework for asset management in an aligned and integrated way. This review focused on the fundamentals for effective implementation of AMS by seeking understanding of the following:

- Leadership Commitment
- Current State/Gap Assessment
- Improvement action plan
- Steering & Governance

This review does not formally assess the asset management maturity or validate the alignment to ISO 55001², rather it sought to gain insights on the key elements of the AMS that will underpin the region's asset management approach.

² Network Rail is required to demonstrate that they are working in accordance with ISO55001. This can be undertaken by either a rigorous self-assessment or by use of an accredited organisation.

2.4 Review Approach

ISO 55001 defines the requirements for a ‘management system for asset management’, therefore implementing ISO 55001 means applying a management system approach for managing the assets.

The building blocks of the AMS and the sequence in which it can be established or improved is shown in the figure below. This review sought to verify whether the region has established the building blocks of the AMS and has defined and implemented the required elements of ISO 55001.

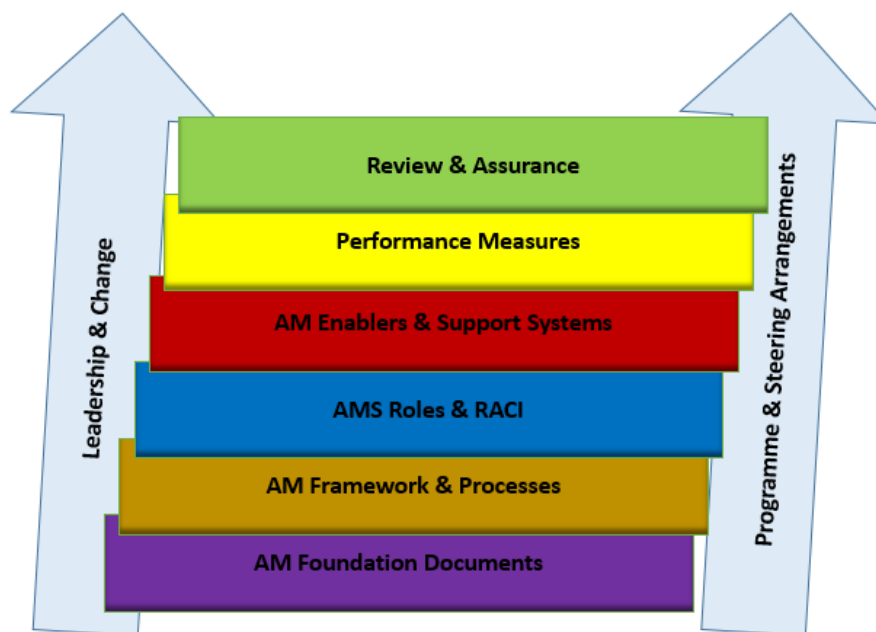


Figure 2.1 Typical building blocks of Asset Management System

The review requested the region to provide a recent gap assessment against ISO 55001, which it used to understand the level of maturity in each element of the ISO55001 asset management system.

In setting out to demonstrate the determination requirement, the region has chosen to demonstrate that its asset management is in alignment with ISO 55001. Whilst the term ‘alignment’ can be multi-interpretative, for the context of this assurance review, we used the following guiding criteria³ to consider the region has attained the final determination requirement: as a minimum, a majority of the elements should be at asset management

³ Our criteria is aligned to IAM endorsed assessors schedule of requirements for certification decision.

maturity level 3 (level of compliance with ISO 55001) and no scores below 2.5 (in planning stage). For elements with scores between 2.5 and 3 (in implementation stage), there should be a credible timebound improvement plan.

The Eastern team responsible for the asset management improvement programme was engaged throughout this review. We sought understanding of the current position and the plans for improvement in each of the fundamental elements. Based on the information provided, the key findings of the review are set out in the following section.

3. Findings

3.1 Review findings

Leadership Commitment:

The DEAM holds the accountability for the ISO 55001 alignment objective and is the executive owner of the asset management system.

In the CP6 Route Strategic Plans published in March 2019, the Anglia and LNE Routes had committed to develop their asset management capabilities and improve their asset management processes and arrangements to meet the requirements of ISO 55000.

Following the PPF re-organisation, the Route Strategic Plans were replaced by a Regional Strategic Plan in March 2020; it restated the above commitment to regional level organisation.

The DEAM has set out a vision statement to deliver efficient and effective asset management, has appointed key leadership roles and assigned resources for driving Asset Management improvement in the region. External asset management consultants have also been commissioned to support the region's asset management journey.

These actions indicate strong commitment of the new leadership team to improve its asset management capability.

ISO55001 Gap Assessment:

A recent asset management gap assessment was undertaken in Dec 2020 by an external consultant commissioned by the Eastern region to help transform their asset management approach.

A custom tool developed by the Consultant was used for the assessment. The region's maturity in each element of the ISO 55001 clauses were assessed using scores with a scale of 1-3, where a score of 3 denotes the minimum maturity level for compliance with ISO 55001.

The maturity scores of the Eastern region on 27 sub-clauses of the ISO 55001 are shown in the radar plot below.

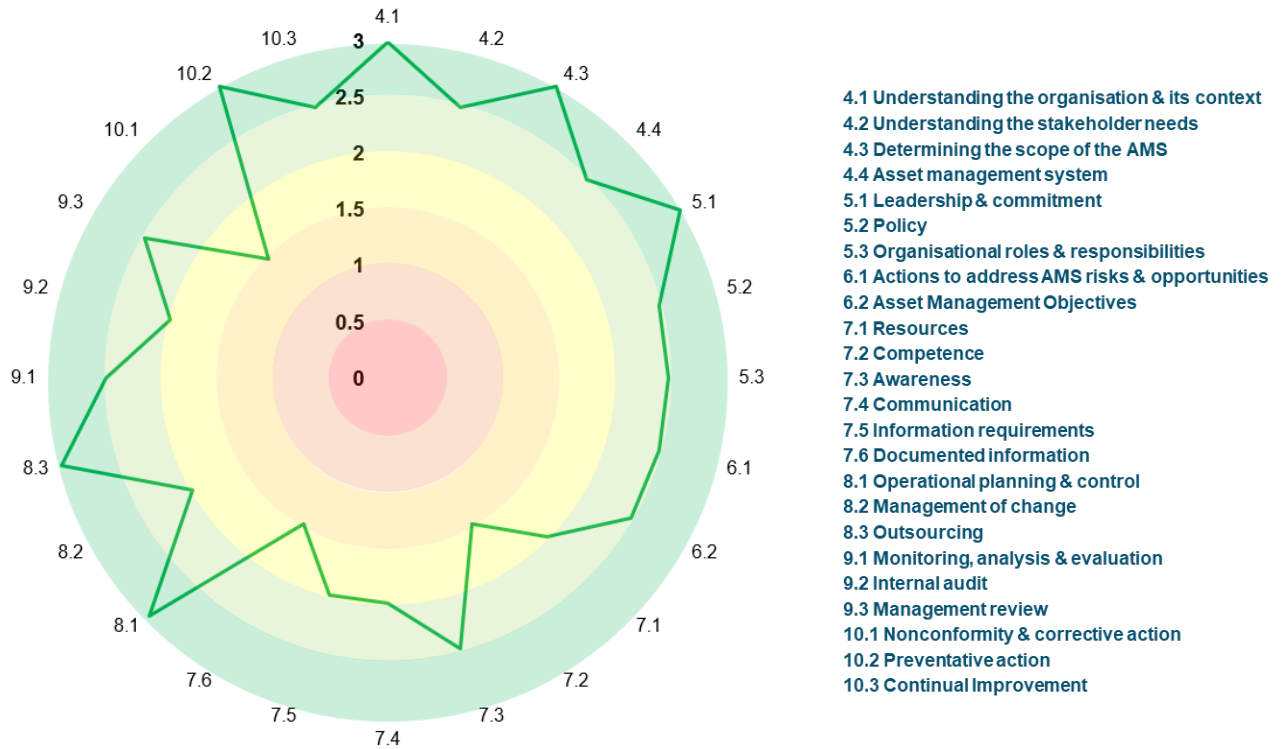


Figure 3.1 Radar chart showing gap assessment results

From the above diagram, it can be observed that Eastern region was only meeting the required standard in 6 of the 27 assessed areas. The majority of the maturity scores ranged between 1.5 and 2.5, indicating that asset management elements are still at various developing stages.

Improvement Plan:

Following the gap assessment, the region produced an improvement action plan to drive asset management improvements. For this purpose, the region undertook a workshop with key internal stakeholders to review the gaps and prioritise key activities for improvement.

The priority improvement areas are in the ISO 55001 elements of planning, support and performance evaluation.

The identified improvement areas are given in figure below.

<i>ISO Clauses:</i>	<i>Avg. score:</i>	<i>Improvement areas:</i>
Organisation Context	2.8	<ul style="list-style-type: none"> • Better interface between external stakeholder managers and AM org. • Need for overarching Regional SAMP
Leadership	2.7	<ul style="list-style-type: none"> • Building up capacity • Better understanding of RACI • Visibility to AM Policy / link to outcomes
Planning	2.3	<ul style="list-style-type: none"> • Opportunity to inform the Business Plan based on risk and value • Integrated planning across assets and Routes
Support	2	<ul style="list-style-type: none"> • Visibility to competence gap • Route Asset Information Strategy • More strategic approach to resourcing
Operation	2.6	<ul style="list-style-type: none"> • More robust change control process
Performance Evaluation	2.3	<ul style="list-style-type: none"> • Streamline monitoring/reporting process • More robust assurance process
Improvement	2.8	<ul style="list-style-type: none"> • <u>Better controls associated to</u> fault and incident management • Enhanced continuous improvement

Figure 3.2 Areas identified for further improvement

The improvement action plan includes defined activities, outcomes and dependencies to other national programmes. Each workstream has phased delivery milestones – short term (2021), medium-term (2022) and long-term (by CP7).

The action plan is shown in Appendix - A.

Steering and Governance:

The progress of the improvement action plan is reviewed through the Eastern region periodic Engineering & Asset Management meeting.

The E&AM meeting board is made up of senior leaders within the E&AM organisation and is chaired by the DEAM. This meeting provides linkage with other Regional and Route-level business review mechanisms.

The Head of Asset Management Strategy is the programme lead and acts as a champion for embedding asset management improvements in the region.



The Eastern region is developing an integrated programme for embedding asset management improvement that encompasses the action plans for ISO 55001 alignment and other initiatives viz. GRAI (Governance, Risk, Assurance, Improvement) and to feed into CP7 Planning.

The integrated programme management is tasked with providing oversight of the asset management improvement projects and initiatives undertaken within the region.

Key elements of the Asset Management System:

Our review also sought to understand the building blocks of an asset management system on upon which the improvements can be driven.

Foundation Documents: The core documents/elements in an Asset Management system are the Asset Management Policy, Strategic Asset Management Plan (SAMP) and Asset Management Plans. The existence of these is a specific and definitive requirement of ISO 55001.

Asset Management Policy: *The principles by which the organisation intends to manage its assets are set out in an Asset Management Policy.*

Currently the region adopts the National Asset Management policy which was produced in 2018 in view of the CP6 planning.

There is no regional ownership of the adopted asset management policy. However, the region intends to have a supplementary regional asset management policy.

Strategic Asset Management Plans: *Strategic Asset Management Plan (SAMP) or Asset Management Strategy, is documented information that typically specifies what the organisation aspires to achieve, how and when. The requirements expected from a SAMP may be contained in different organisational strategies, plans and documents.*

The majority of the “what” elements – what the region intends to achieve from asset management activities and by when, are included in the Region Strategic Plan. It covers the organisation context, regional objectives & targets, strategic initiatives and timescales for implementation. It also covers some “how” elements such as stakeholder analysis, delivery strategy and references to existing supporting strategies.

As part the PPF transformation programme, Functional Handbooks and Operating Manuals are still being produced which document the management system (structure, roles & responsibilities, process areas) and define the way of working and operating principles in the region. These documents cover additional “how” elements and provide references to governing documents and assurance methodology.

The region informed us that it intends to produce a Regional Strategic Asset Management Plan in the coming year. This document is expected to improve clarity on how the region will deliver asset management practices.

Plans: *Asset Management plans are documented information that specify the asset lifecycle needs, financial strategies (capex, opex), resources (information, supply chain etc), timescales along a planning horizon and risks.*

Whilst local asset plans exist for some asset groups, there is no holistic regional or route asset management plan with a planning horizon beyond the current control period.

There is an ongoing workstream to improve the local asset management planning processes. The region intends to have a consolidated regional asset management plan by the end of the year. This is expected to bring route plans for all assets together, with a planning horizon to CP7.

Framework and Processes – *Asset management system is a documented, process-centric approach to how an organisation will manage its asset to achieve its strategic objectives. ISO 55001 requires organisations to plan, define, implement and control the processes needed for the asset management system.*

The Eastern region's Asset Management System framework diagram is adapted from the previous national asset management framework. It illustrates the alignment to key documents and functions within the scope of the region's asset management system.

The region has not yet mapped the process architecture for its asset management system, so there is no visibility on the overall functional and enabling processes required for the asset management system, the existing processes and the gaps.

As part of Network Rail's nation-wide roll-out of the Governance, Risk, Assurance and Improvement (GRAI) framework, 16 core business process areas have been identified for organisational governance and assurance. Some of these core processes may overlap within the scope of the AM system.

We expect the region to identify and map all the key processes required for the asset management system, including the existing and desired ones, and define the process steps and controls, process accountabilities in a RACI structure.

The region stated that it is working with the Technical Authority on the development of the national processes and will determine where it would need to have specific regional processes.

Roles & RACI:

Following the transformation to the regional operating model, the region has set out the key business areas and its interface, organisation structure and accountabilities for the entire organisation.

The engineering and asset management structure under the DEAM will manage policy, strategy, assurance and provide technical leadership.

Key roles in strategic and tactical asset management are defined, specifically for planning and asset-related decisions.

The regional ownership for each of the 16 core process areas has been allocated to a member of the executive leadership team.

Information: *A vital element of effective asset management is decision-making that is evidence-based and data-driven, hence sufficient, fit for purpose information is required to be maintained.*

The region has improvement actions planned to address the weaknesses in Information management capability. It is developing an asset information strategy (AIS) and configuration management plan.

This strategy would then set out the roadmap of how the region would identify the information requirements of the internal and external stakeholders and what data is needed to be collected now and future to support decision-making and assurance.

The region complies with the national level data management frameworks and standards for data collection and maintenance at a local level.

Competence & Awareness:

The region has planned to carry out competency mapping and gap analysis as priority and intends to adopt the national Asset Management Competence Framework (AMCF).

A number of initiatives have been undertaken to improve asset management awareness in the region, including training programme, quarterly action plan delivery newsletter, engagement workshops with routes, creation of asset management hub and build awareness and support through communication and stakeholder management plan.

Measurement and Improvement: *This section seeks to ensure appropriate processes, tools and indicators are in place to enable the monitoring and measurement of the asset condition/performance, delivery of the plans, achievement of objectives and effectiveness/improvement of the asset management system.*

Monitoring:

The currently available KPIs predominantly tend to be lag indicators on asset (performance/condition) and asset management performance (objectives, targets, service level, delivery etc). The region is aware of the need to have a suite of measures with a mix of lag and lead indicators to monitor the asset health and effectiveness of the asset management system.

We were informed that the region is working across the disciplines and with the routes on dashboards and visibility of performance and are designing an approach on asset health to understand future sustainability.

Audit & Assurance:

The gap assessment identified weaknesses in this area. The region stated that the assets have well controlled and robust management processes in place, but it is less forward looking for the management system.

The region advised us of their intention to develop an assurance landscape for asset management and improve the controls to manage non-conformities.

At the time of the review the region was yet to develop an effective assurance process to identify and control non-conformities.

Management Review:

There is a management review arrangement in place covering performance, delivery, risks and audits. The scope of the management review needs to ensure that it covers all aspects of the asset management system, and there are actions planned regarding this in the improvement plan.

The Asset Management Improvement Plan including the asset management system are reviewed at Eastern Senior Engineers monthly meetings.

4. Conclusion and Recommendations

4.1 Conclusion

This assurance review finds that Eastern region is still largely in the 'developing stage' of its asset management capability improvement journey, and therefore was not able to demonstrate compliance to ISO 55001 by end of March 2021.

Network Rail was first advised of the requirement to demonstrate that they were working in accordance with ISO55000 by March 2021 in our draft determination published in June 2018. In essence Network Rail had just under three years notice. It is therefore of concern that this milestone was missed.

The gap analysis undertaken at regional level shows that the maturity scores on a majority of ISO 55001 elements are between 1.5 and 2.5, a score of 3 denoting the minimum maturity level for compliance with ISO 55001. The region meets the required standard in only 6 of the 27 elements of ISO 55001.

Eastern region is aware of the areas where improvement is required and improvement actions are being progressed. The region has taken the approach to prioritise the areas that would bring quick-wins and more value to the business, which in turn would complement the ISO 55001 requirements.

Our assessment of the asset management system, based on the information shared by the region, revealed that some core elements of the asset management system still need further development to meet the key requirements of ISO55001.

Two aspects that bind the asset management system together are Leadership & Change Management. Our review found that leadership and governance arrangements are now in place to address the elements of direction, oversight, and control to guide the development and operation of Asset Management System.

Throughout the journey a level of project management will be required to make sure it all happens in a logical, efficient and effective order. The steering arrangements and road map for maturity were all clearly evident and satisfactory.

On the basis of this assurance review, we conclude that the Eastern region has not met the determination requirement and needs further progress for us to consider that its asset management complies with ISO 55001.

However, a recent momentum was evident in the Eastern region with a wider improvement action plan to improve its maturity to achieve compliance by 2022.

4.2 Recommendations

Based on the findings and conclusion, the following recommendations are offered to the DEAM of the Eastern region.

Improvement Plan Delivery:

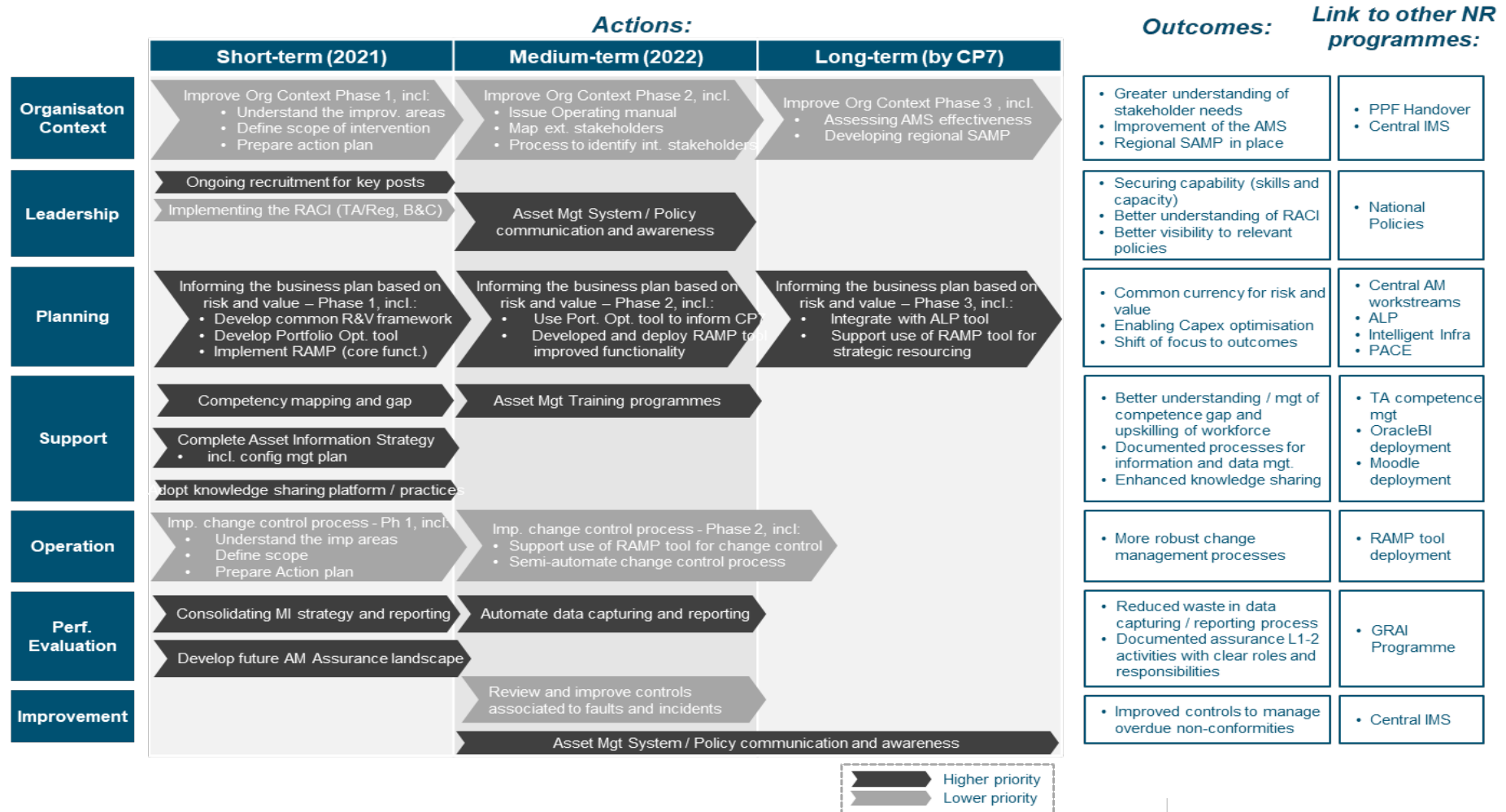
The region is required to continue its commitment to the delivery of the improvement plan by the target milestone dates.

The region should provide an update to ORR on the implementation plan actions in October/November 2021.

Improving Maturity:

The region is required to demonstrate that it has met the requirements necessary to achieve certification to ISO 55001 by end of March 2022, by either self-assessment or independent assessor.

5. Appendix-A





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