

A.11 Technical Standards & Legislation

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Lifecycle Delivery	Technical Standards & Legislation	The processes used by an organization to ensure its asset management activities are compliant with the relevant technical standards and legislation.	
Network Rail Capability Statement	To ensure all technical standards and legislative rules are valid and complied with without leading to any degradation in safety.		
Network Rail Improvement Specification	Technical Standards and Legislation include processes for the identification, applicability updating and compliance assurance of standards and legislation in the Asset Management context. This will involve: <ul style="list-style-type: none"> The adoption of the results of the Business Critical Rules programme which examines the causes and consequences of events and in doing so, tests the validity of standards Adoption of better integrated information systems. 		
Network Rail Planned Activities	<ul style="list-style-type: none"> Completion of transition to the findings of the Business Critical Rules programme for infrastructure activity Implementation of integrated management systems which are accredited to the relevant ISO 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> New processes and rules embedded with no perceived degradation in safety New processes and rules embedded with no perceived degradation in safety
Baseline Score (based on timely achievement of all documented improvements)			82%
AMCL Roadmap Factors	None.		
Other Scope Opportunities	All key opportunities included in Roadmap. Further improvement in maturity scores would be reliant on multiple small factors and demonstrable output performance and continuous improvement over a number of years.		
Deliverability Risk Scores			
Available Level of Plan Detail	No plans or high-level milestones only	6%	
Delta from CP4 Exit Score	Delta >=15	3%	
Current Level of Embedment	Substantial understanding of subject and development plans at Route level	1%	
Track Record	Some improvements but not systematic	2%	
Wider Industry Interfaces	Wholly within Network Rail's control	0%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			70%

Table 16 Technical Standards & Legislation

A.12 Asset Creation & Acquisition

GFAM Group	GFAM Subject	GFAM Definition <i>(The Asset Management Landscape Second Edition (www.gfmam.org))</i>	
Lifecycle Delivery	Asset Creation & Acquisition	An organization's processes for the acquisition, installation and commissioning of assets.	
Network Rail Capability Statement	To be able to select optimal solutions for creation of assets based on Whole Life Cost and to be able to optimise the delivery of that asset.		
Network Rail Improvement Specification	Asset Creation & Acquisition will be improved by: <ul style="list-style-type: none"> • Adoption of Whole Life Costing Models to allow better option selection • Use of P3M3 to assess its asset creation strengths and weaknesses and to then define clear improvement plans. 		
Network Rail Planned Activities	<ul style="list-style-type: none"> • WLCC toolset deployed across agreed E and R projects (Mar 2015) (• Implement improvement projects resulting (from P3M3 assessment/s (• Continue to develop and mobilise IP IT BIM. (Monitor & measure uptake / success rate (• Implementation of an enhanced toolset consolidating all renewal and enhancement activities together with common reporting and review methodology into an integrated i.e. mutually compatible, set of systems • Implement second line assurance within IP • Introduce Programme Management Lifecycle 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> • Evidence that the WLCC toolset is being used as BAU
Baseline Score (based on timely achievement of all documented improvements)		81%	
AMCL Roadmap Factors	3.2		
Other Scope Opportunities	Programme management and alignment to ISO 15288, plus handback. Monitoring of planned against actual benefits.		
Deliverability Risk Scores			
Available Level of Plan Detail	Outline Plans only	4%	
Delta from CP4 Exit Score	Delta >0<5	1%	
Current Level of Embedment	Substantial understanding of subject and development plans at Route level	1%	
Track Record	Demonstrable phases of improvement	1%	
Wider Industry Interfaces	Largely within Network Rail's control	1%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)		73%	

Table 17 Asset Creation & Acquisition

A.20 Fault & Incident Response

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Lifecycle Delivery	Fault & Incident Response	Responding to failures and incidents in a systematic manner, including incident detection and identification, fault analysis, use of standard responses, temporary and permanent repairs as well as the taking over and handing back of sites.	
Network Rail Capability Statement	Responding better to incidents and capturing all relevant information. To then use that information to better management assets according to their associated risks		
Network Rail Improvement Specification	A better understanding of the reasons for asset failure is required. Also better processes/systems are required to better record the information gathered at an incident		
Network Rail Planned Activities	<ul style="list-style-type: none"> Handheld fault & incident data capture app completed (Aug 2014) Complete FMEA and embed in FMS & RBM processes (Mar 2016) 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> Roll out complete and in use across all routes/assets FMEA embedded in all routes/assets
Baseline Score (based on timely achievement of all documented improvements)			80%
AMCL Roadmap Factors	None.		
Other Scope Opportunities	All key opportunities included in Roadmap. Further improvement in maturity scores would be reliant on multiple small factors and demonstrable output performance and continuous improvement over a number of years.		
Deliverability Risk Scores			
Available Level of Plan Detail	Outline Plans only	4%	
Delta from CP4 Exit Score	Delta >5<15	2%	
Current Level of Embedment	Substantial understanding of subject and development plans at Route level	1%	
Track Record	Demonstrable phases of improvement	1%	
Wider Industry Interfaces	Largely within Network Rail's control	1%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			71%

Table 25 Fault & Incident Response

A.21 Asset Decommissioning & Disposal *

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Lifecycle Delivery	Asset Decommissioning & Disposal	The processes used by an organization to decommission and dispose of assets due to ageing or changes in performance and capacity requirements.	
Network Rail Capability Statement	The ability is required to identify assets which can be decommissioned and disposed of across the business.		
Network Rail Improvement Specification	To pull together the findings of a number of initiatives across the business with a view to identifying which assets can be disposed of without impacting long term capacity and performance targets.		
Network Rail Planned Activities	<ul style="list-style-type: none"> Development of a Risk Based Model to identify low usage/risk S&C that may be taken out of service (Mar 2015) Extension of usage/risk based S&C model to inform the selection of S&C maintenance regimes (Mar 2015) Incorporate learning from S&C rationalisation and route CP5 planning to develop enhanced processes (Mar 2015) 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> Annual management reviews and learning complied and incorporated into approach Annual management reviews and learning complied and incorporated into approach Annual management reviews and learning complied and incorporated into approach
Baseline Score (based on timely achievement of all documented improvements)			88%
AMCL Roadmap Factors	3.11		
Other Scope Opportunities	All key opportunities included in Roadmap - although optimisation is dealt with more in Subject 8. Opportunities to rationalise assets, considering optimised trade-offs with operational flexibility, performance risk and whole-life cost of ownership, are included in Route level Delivery Plans.		
Deliverability Risk Scores			
Available Level of Plan Detail	Detailed programme and resource plans but not yet implemented		2%
Delta from CP4 Exit Score	Delta >=15		3%
Current Level of Embedment	Substantial understanding of subject and development plans at Route level		1%
Track Record	Some improvements but not systematic		2%
Wider Industry Interfaces	Largely within Network Rail's control		1%
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			79%

Table 26 Asset Decommissioning & Disposal

A.22 Asset Information Strategy

GFAM Group	GFAM Subject	GFAM Definition <i>(The Asset Management Landscape Second Edition (www.gfam.org))</i>	
Asset Information	Asset Information Strategy	The strategic approach to the definition, collection, management, reporting and overall governance of asset information necessary to support the implementation on an organization's asset management strategy and objectives.	
Network Rail Capability Statement	An Asset Information Strategy is required to support the delivery of the Asset Management Strategy.		
Network Rail Improvement Specification	To create an Asset Information Strategy to supports the delivery of the Asset Management Strategy and objectives. This will involve the identification of systems and governance processes which will be necessary to deliver the required information and also the introduction of a regular review process to incorporate changes in Asset Strategy which may be brought about by technical, regulatory or environmental changes.		
Network Rail Planned Activities	<ul style="list-style-type: none"> Produce Asset Information (AI) Policy Produce, review/update AI Strategy Update mapping of systems to business need & use to formulate future plans Costed business cases for AI systems beyond CP5 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> Asset Policy to demonstrate alignment to asset management strategy and excellence at IIP & SBP 2018 Strategy reviewed on a regular basis in response to changes in Asset Policy, current at SBP 2018 System mapping to business needs complete and subject to regular review Costed business cases in place and subject to regular review
Baseline Score (based on timely achievement of all documented improvements)			89%
AMCL Roadmap Factors	None.		
Other Scope Opportunities	All key opportunities included in Roadmap. Further improvement in maturity scores would be reliant on multiple small factors and demonstrable output performance and continuous improvement over a number of years.		
Deliverability Risk Scores			
Available Level of Plan Detail	Work substantially complete	0%	
Delta from CP4 Exit Score	Delta >5<15	2%	
Current Level of Embedment	Limited understanding of subject at Route level and no available development plans	2%	
Track Record	Demonstrable history of systematic and sustainable improvement	0%	
Wider Industry Interfaces	Wholly within Network Rail's control	0%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			85%

Table 27 Asset Information Strategy

A.23 Asset Information Standards *

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Asset Information	Asset Information Standards	The specification of a consistent structure and format for collecting and storing asset information and for reporting on the quality and accuracy of asset information.	
Network Rail Capability Statement	A process is required to define the data quality standards that are required within the business		
Network Rail Improvement Specification	To pull together Asset Information from a number of sources and to validate it against the defined standards for each asset. The result of this will be a complete knowledge of all of the business assets which include a condition rating and where the condition is below that required, a clear plan to improve the data quality of these assets.		
Network Rail Planned Activities	<ul style="list-style-type: none"> • Signalling data specification available (Jan 2015) • E&P data Specification available (Apr 2015) • Structures data specification (Jun 2014) • Development and introduction of processes to maintain the required standards (June 2015) • Continuously improve the data specifications based on MDM outputs (June 2015) • To complete all asset information standards and guidance information to ISO/BS requirements (Jun 2015) 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> • Signalling data specification available on schedule • E&P data specification available on schedule • Structures data specification available on schedule • In place and operational - BAU • In place and operational - BAU • In place and operational - BAU
Baseline Score (based on timely achievement of all documented improvements)		91%	
AMCL Roadmap Factors	None.		
Other Scope Opportunities	All key opportunities included in Roadmap. Further improvement in maturity scores would be reliant on multiple small factors and demonstrable output performance and continuous improvement over a number of years.		
Deliverability Risk Scores			
Available Level of Plan Detail	Detailed programme and resource plans but not yet implemented	2%	
Delta from CP4 Exit Score	Delta >=15	3%	
Current Level of Embedment	Limited understanding of subject at Route level and no available development plans	2%	
Track Record	Demonstrable phases of improvement	1%	
Wider Industry Interfaces	Largely within Network Rail's control	1%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)		82%	

Table 28 Asset Information Standards

A.24 Asset Information Systems

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Asset Information	Asset Information Systems	The asset information systems an organization has in place to support the asset management activities and decision-making processes in accordance with the Asset Information Strategy.	
Network Rail Capability Statement	To put in place Asset Information Systems which are capable of supporting the Asset Information Strategy and which meet the business needs.		
Network Rail Improvement Specification	To provide Network Rail with the information systems required to support the Asset Management Strategy for all assets, routes and central functions. This includes all of the deliverables of the ORBIS programme.		
Network Rail Planned Activities	<ul style="list-style-type: none"> Track Linear Asset Decision Support tools (May 2014) Signalling Decision Support tool (Sept 2015) E&P Data Store (Dec 2015) Geogis Decommissioned (Dec 2016) Ellipse replaces CARRS (Jun 2016) Deploy Mobile Works Management tools to those involved in asset management /maintenance (Jan 2016) 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> Linear Asset Decision Support tools deployed on schedules Signalling Decision Support tool deployed on schedule E&P data store in place on schedule Geogis decommissioned on schedule CARRS replaced by Ellipse on schedule Tools deployed and operational
Baseline Score (based on timely achievement of all documented improvements)			81%
AMCL Roadmap Factors	None.		
Other Scope Opportunities	All key opportunities included in Roadmap. Further improvement in maturity scores would be reliant on multiple small factors and demonstrable output performance and continuous improvement over a number of years.		
Deliverability Risk Scores			
Available Level of Plan Detail	Detailed programme and resource plans but not yet implemented	2%	
Delta from CP4 Exit Score	Delta >=15	3%	
Current Level of Embedment	Substantial understanding of subject and development plans at Route level	1%	
Track Record	Demonstrable phases of improvement	1%	
Wider Industry Interfaces	Wholly within Network Rail's control	0%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			74%

Table 29 Asset Information Systems

A.25 Data & Information Management *

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Asset Information	Data & Information Management	The data and information within an organization's asset information systems and the processes for the management and governance of that data and information.	
Network Rail Capability Statement	To improve and maintain asset management data records across all assets and where appropriate to improve the quality of that data		
Network Rail Improvement Specification	To enact the data requirements defined in the Asset Management .strategy specifically around: <ul style="list-style-type: none"> • Data ownership • Required data standards • Improvements in data collection • 4. To improve the governance surrounding asset data 		
Network Rail Planned Activities	<ul style="list-style-type: none"> • Asset Management (AM) Policy in place • AM Policy available and communicated to the business • AMEM Lite Assessments completed to provide auditable evidence of the AM Policy being embedded into the Routes • Process to review and update the AM Policy developed, documented, communicated and embedded (Jun 2016) 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> • Issued version of the AM Policy available at IIP and SBP • Evidence that the AM Policy is available to the business and communication events completed • Key leaders are aware of and use the AM Policy • Evidence that the process to review and update the AM Policy is known within the business and evidence that the AM Policy has been reviewed and updated in accordance with the documented process.
Baseline Score (based on timely achievement of all documented improvements)			79%
AMCL Roadmap Factors	None.		
Other Scope Opportunities	All key opportunities included in Roadmap. Further improvement in maturity scores would be reliant on multiple small factors and demonstrable output performance and continuous improvement over a number of years.		
Deliverability Risk Scores			
Available Level of Plan Detail	Detailed programme and resource plans but not yet implemented	2%	
Delta from CP4 Exit Score	Delta >=15	3%	
Current Level of Embedment	Substantial understanding of subject and development plans at Route level	1%	
Track Record	Some improvements but not systematic	2%	
Wider Industry Interfaces	Wholly within Network Rail's control	0%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			71%

Table 30 Data & Information Management

A.26 Procurement & Supply Chain Management

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Organisation & People	Procurement & Supply Chain Management	The processes used by an organization to ensure that all outsourced Asset Management activities are aligned with the Asset Management objectives of the organizations and to monitor the outcomes of these activities against these objectives.	
Network Rail Capability Statement	To adopt a procurement approach consistent with the key themes directly supporting the business and broader industry. These themes are Safety, Engagement, Collaboration, Performance, Innovation, Sustainability and Communication. Some of these themes align with wider procurement standards such as BS11000 whereas others relate to the changed organization structure of Network Rail and the specific requirements of diverse clients.		
Network Rail Improvement Specification	To introduce a more collaborative approach to procurement and management of suppliers and to ensure the structure of the procurement function is aligned with the requirements of the business.		
Network Rail Planned Activities	<ul style="list-style-type: none"> Introduction of collaborative (contracting methods (NEC (approach, Commercial Directors Forum, Business in the community, BS11000) etc. Alignment of the procurement organisation with its clients, forming regional and major programme business units Commit to sustainability as a key contracting approach Support the introduction of alliancing within the supply chain 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> Collaborative contact approach embedded in both centre & routes Re-aligned procurement structure embedded throughout NR with continual review of results Embedment of the approach with the whole of Network Rail IP An understanding of the alliances which exist in the supply chain feedback demonstrating positive results
Baseline Score (based on timely achievement of all documented improvements)			82%
AMCL Roadmap Factors	None.		
Other Scope Opportunities	Consistent monitoring and improvement of actual against anticipated cost savings.		
Deliverability Risk Scores			
Available Level of Plan Detail	No plans or high-level milestones only	6%	
Delta from CP4 Exit Score	Delta >5<15	2%	
Current Level of Embedment	Substantial understanding of subject and development plans at Route level	1%	
Track Record	Demonstrable phases of improvement	1%	
Wider Industry Interfaces	Significant dependencies on external parties	2%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			70%

Table 31 Procurement & Supply Chain Management

A.27 Asset Management Leadership *

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Organisation & People	Asset Management Leadership	The leadership of an organization required to promote a whole life asset management approach to deliver the organizational and Asset Management objectives to the organization.	
Network Rail Capability Statement	Asset Management needs to be embedded in all aspects of leadership training with Network Rail.		
Network Rail Improvement Specification	Asset Management Leadership covers the planning and establishment of an organisational leadership team with clear definition of responsibilities and accountability all of which are focused on the delivery of the organisations asset management objectives. Within the Network Rail context, it is related to ensuring that Asset Management excellence is at the heart of management and leadership training and that appropriate competence development is available to those who require it		
Network Rail Planned Activities	<ul style="list-style-type: none"> The implications of excellence in Asset Management to be included in modules within management and leadership training programmes (Mar 2015) Success Criteria/Key Metrics to be developed for Asset Management excellence The required leadership competencies to be included within the overall strategy for Engineering and Asset Management competencies (Dec 2015) Leadership accountabilities within the asset management system are clearly laid out in the AM system 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> Evidence that the modules have been embedded into the training programmes Asset Management excellence included as a key objective in Network Rail Strategy including success criteria / key metrics Relevant delivery programmes delivered to schedule Relevant delivery programmes delivered to schedule
Baseline Score (based on timely achievement of all documented improvements)			81%
AMCL Roadmap Factors	None.		
Other Scope Opportunities	All key opportunities included in Roadmap. Further improvement in maturity scores would be reliant on multiple small factors and demonstrable output performance and continuous improvement over a number of years.		
Deliverability Risk Scores			
Available Level of Plan Detail	Detailed programme and resource plans but not yet implemented	2%	
Delta from CP4 Exit Score	Delta >5<15	2%	
Current Level of Embedment	Substantial understanding of subject and development plans at Route level	1%	
Track Record	Some improvements but not systematic	2%	
Wider Industry Interfaces	Wholly within Network Rail's control	0%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			74%

Table 32 Asset Management Leadership

A.28 Organisational Structure *

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Organisation & People	Organisational Structure	The structure of an organization in terms of its ability to deliver the organizational and Asset Management objectives.	
Network Rail Capability Statement	To create an organisation in terms of its ability to deliver the organisational objectives and the specified behaviour complemented by appropriate organisational baseline, measurement and characterisation of barriers.		
Network Rail Improvement Specification	To better improve the mechanisms used to select members for teams and to fully understand what skills are required within the organisation to support the delivery of the Asset Management Strategy.		
Network Rail Planned Activities	<ul style="list-style-type: none"> • Process developed and embedded for selecting teams. The process is explicitly mapped to the company's Asset Management competency framework (Mar 2017) • Competences (skills, knowledge, etc.) for Asset Managers are defined as a group so that Asset Management strategic objectives can be met (Mar 2017) • Team coverage of these group competences is determined and translated into team goals and objectives and teams created as appropriate (Mar 2017) • Teams contributing to the delivery of the Network Rail Asset Management strategy are briefed on what is expected of them and how their performance will be measured. (Mar 2015) 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> • Relevant delivery programmes delivered to schedule • Relevant delivery programmes delivered to schedule • Relevant delivery programmes delivered to schedule • Relevant delivery programmes delivered to schedule
Baseline Score (based on timely achievement of all documented improvements)			75%
AMCL Roadmap Factors	5.4		
Other Scope Opportunities	Definition of information flow requirements between different teams, functions and management levels.		
Deliverability Risk Scores			
Available Level of Plan Detail	Detailed programme and resource plans but not yet implemented	2%	
Delta from CP4 Exit Score	Delta >=15	3%	
Current Level of Embedment	Limited understanding of subject at Route level and no available development plans	2%	
Track Record	Demonstrable phases of improvement	1%	
Wider Industry Interfaces	Wholly within Network Rail's control	0%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			67%

Table 33 Organisational Structure

A.29 Organisational Culture *

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Organisation & People	Organisational Culture	The culture of an organization in terms of its ability to deliver the organizational and Asset Management objectives.	
Network Rail Capability Statement	To create an organisation in terms of its ability to deliver an appropriate culture complemented by appropriate organisational baseline, measurement and characterisation of barriers.		
Network Rail Improvement Specification	To ensure that the desired organisational cultural is defined and to put in place processes to ensure that culture is achieved and is regularly monitored to ensure it is maintained.		
Network Rail Planned Activities	<ul style="list-style-type: none"> Network Rail has developed and maintained a definition of the organisational culture(s) it desires which is consistent with any mission or value statements in place and with its Asset Management Strategy. Annual analyses are undertaken on a sufficiently regular basis of the gap between the desired culture(s) and the current culture(s) - this should make use of such evidence as is already collected but may also require additional survey work. The key influencing factors for, and barriers to, culture change is understood and actions are in place to address these which are under regular review. 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> Clear evidence of maintenance of desired organisational cultures Evidence of regular analysis between desired and current cultures with remedial actions in place to deal with any adverse trends Clear evidence that all barriers to cultural change are understood including any emerging barriers
Baseline Score (based on timely achievement of all documented improvements)			78%
AMCL Roadmap Factors	None.		
Other Scope Opportunities	All key opportunities included in Roadmap. Further improvement in maturity scores would be reliant on multiple small factors and demonstrable output performance and continuous improvement over a number of years.		
Deliverability Risk Scores			
Available Level of Plan Detail	Detailed programme and resource plans but not yet implemented	2%	
Delta from CP4 Exit Score	Delta >5<15	2%	
Current Level of Embedment	Limited understanding of subject at Route level and no available development plans	2%	
Track Record	Some improvements but not systematic	2%	
Wider Industry Interfaces	Wholly within Network Rail's control	0%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			70%

Table 34 Organisational Culture

A.30 Competence Management *

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Organisation & People	Competence Management	The processes used by an organization to systematically develop and maintain an adequate supply of the competent and motivated people to fulfil its asset management objectives including arrangements for managing competence in the boardroom and the workplace.	
Network Rail Capability Statement	To put in place the frameworks and benchmarking along with processes to identify gaps between the organisational requirements and available competencies. To also make available training to address any perceived gaps.		
Network Rail Improvement Specification	To put in place the frameworks and benchmarking along with processes to identify gaps between the organisational requirements and available competencies. To also make available training to address any perceived gaps.		
Network Rail Planned Activities	<ul style="list-style-type: none"> • Creation of a competence framework with individual and team competencies aligned with Asset Management Strategy requirements and the processes to revise these annually • Development of professionalisation programme, including external qualifications, available for use in BAU Mar 2015) • Completion of core training catalogues Mar 2016) • Attainment of MSc or equivalent by priority cohort (Mar 2017) 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> • Competency framework in place and been through at least one revision cycle • Professionalisation programme deployed and in use for at least two years • Core training catalogues completed and available • Priority cohort of MSc or equivalent students achieved qualification
Baseline Score (based on timely achievement of all documented improvements)			81%
AMCL Roadmap Factors	None.		
Other Scope Opportunities	Incorporation of human factors policies and processes.		
Deliverability Risk Scores			
Available Level of Plan Detail	Detailed programme and resource plans but not yet implemented	2%	
Delta from CP4 Exit Score	Delta >5<15	2%	
Current Level of Embedment	Limited understanding of subject at Route level and no available development plans	2%	
Track Record	Some improvements but not systematic	2%	
Wider Industry Interfaces	Wholly within Network Rail's control	0%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			73%

Table 35 Competence Management

A.31 Risk Assessment & Management

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Risk & Review	Risk * Assessment & Management	The policies and processes for identifying, quantifying and mitigating risk and exploiting opportunities.	
Network Rail Capability Statement	To adopt standard methods of identifying risks and consequences across all assets and routes and in doing so, replacing the asset specific methods currently in use.		
Network Rail Improvement Specification	To put in place a number of initiatives designed to standardise the measurement and assessment of risk across the business so as to better allow relative risk across assets to be measured.		
Network Rail Planned Activities	<ul style="list-style-type: none"> Adoption of common consequences tool by (Mar 2015) Adoption of the Common Risk Matrix for safety (Sept 2015) Adoption of standard cost benefit analysis tool across NR (Jun 2017) Adoption of Bow Tie Risk Assessment as basic requirement including all projects being required to carry out Bow Tie Analysis at GRIP 1 within Network Rail (Jan 2018) 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> All assets and routes using tool with annual review All routes and assets adopt and use tool with annual reviews NR Investments and projects adopt the common Cost Benefit Analysis tool with annual reviews Bow Tie Analysis to be standard process used within Network Rail with evidence of a move towards wider industry adoption
Baseline Score (based on timely achievement of all documented improvements)		83%	
AMCL Roadmap Factors	6.1		
Other Scope Opportunities	Development of corporate risk appetite and identification and management of mitigations. Alignment of common strategic, tactical and operational risks and risk registers.		
Deliverability Risk Scores			
Available Level of Plan Detail	No plans or high-level milestones only	6%	
Delta from CP4 Exit Score	Delta >=15	3%	
Current Level of Embedment	Substantial understanding of subject and development plans at Route level	1%	
Track Record	Some improvements but not systematic	2%	
Wider Industry Interfaces	Wholly within Network Rail's control	0%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)		71%	

Table 36 Risk Assessment & Management

A.32 Contingency Planning & Resilience Analysis

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Risk & Review	Contingency Planning & Resilience Analysis	The processes and systems put in place by an organization to ensure it is able to continue either to operate its assets to deliver the required level of service in the event of an adverse impact or maintain the safety and integrity of the assets (whether or not they operate).	
Network Rail Capability Statement	To put in place the processes and systems to ensure that the business is able to continue to either operate its assets to deliver the required level of service in the event of an adverse impact or maintain the assets safety and indignity.		
Network Rail Improvement Specification	To put in place written and approved contingency plan, developed and agreed with key partners, integrated plans and information on assets and operating procedures.		
Network Rail Planned Activities	<ul style="list-style-type: none"> Contingency plan in place and agreed (Mar 2015) Contingency plan implemented across the business 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> Plan in place Contingency plan implemented and proven to operate across the business
Baseline Score (based on timely achievement of all documented improvements)			88%
AMCL Roadmap Factors	None.		
Other Scope Opportunities	Regular and prioritised testing of scenario responses.		
Deliverability Risk Scores			
Available Level of Plan Detail	Detailed programme and resource plans but not yet implemented	2%	
Delta from CP4 Exit Score	Delta >0<5	1%	
Current Level of Embedment	Substantial understanding of subject and development plans at Route level	1%	
Track Record	Demonstrable phases of improvement	1%	
Wider Industry Interfaces	Significant dependencies on external parties	2%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			81%

Table 37 Contingency Planning & Resilience Analysis

A.33 Sustainable Development *

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Risk & Review	Sustainable Development	The interdisciplinary, collaborative processes used by an organization to ensure an enduring, balanced approach to economic activity, environmental responsibility and social progress to ensure all activities are sustainable in perpetuity.	
Network Rail Capability Statement	To embed processes which demonstrate the businesses commitment to include sustainable measures as part of asset policies and to reflect the company's commitment to increase resilience in the light of climate change.		
Network Rail Improvement Specification	<ul style="list-style-type: none"> Asset Policy updated to reflect S&SD strategy requirements Process in place to be able to measure S&SD outcomes Adopt a two phase approach to ensuring the business planning process aligns with S&SD strategy 		
Network Rail Planned Activities	<ul style="list-style-type: none"> Asset Policies updated and implemented with agreed coverage of S&SD strategy requirements (Mar 2015) Agreed set of measures in place to monitor and review effectiveness of S&SD outcomes to support continuous improvement (Mar 2016) Phase 1 Business planning processes and project development processes fully aligned to requirements of the S&SD strategy (Mar 2015) Phase 2 Business planning processes and key project development processes fully embedded in CP6 policies and plans (Mar 2016) 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> Policies updated as per schedule Agreed measures in place and being monitored Processes fully aligned to schedule Ongoing annual reviews/updates as part of BAU management & monitoring
Baseline Score (based on timely achievement of all documented improvements)			78%
AMCL Roadmap Factors	None.		
Other Scope Opportunities	Clarity around environmental incentives and financial impact assessment (e.g. triple bottom line). Integration of triple bottom line into Asset Management System.		
Deliverability Risk Scores			
Available Level of Plan Detail	Detailed programme and resource plans but not yet implemented		2%
Delta from CP4 Exit Score	Delta >=15		3%
Current Level of Embedment	Limited understanding of subject at Route level and no available development plans		2%
Track Record	Demonstrable phases of improvement		1%
Wider Industry Interfaces	Wholly within Network Rail's control		0%
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			70%

Table 38 Sustainable Development

A.34 Management of Change

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Risk & Review	Management of Change	An organization's processes for the identification, assessment, implementation and communication of changes to people, processes and assets.	
Network Rail Capability Statement	To put in place processes, systems and training to support the change management function.		
Network Rail Improvement Specification	Identify what actions are required to improve the current Change Management process. Define and communicate actions throughout the business		
Network Rail Planned Activities	<ul style="list-style-type: none"> Define specific actions to improve established processes and cascade by assimilating current best practice to the routes (Mar 2015) 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> Actions implemented and subject to continuous improvement
Baseline Score (based on timely achievement of all documented improvements)			65%
AMCL Roadmap Factors	None.		
Other Scope Opportunities	Overall change management framework and accountabilities for the Asset Management System. Further definition of plans for Management of Change. Consistent corporate policy and processes required.		
Deliverability Risk Scores			
Available Level of Plan Detail	No plans or high-level milestones only	6%	
Delta from CP4 Exit Score	Delta >5<15	2%	
Current Level of Embedment	Limited understanding of subject at Route level and no available development plans	2%	
Track Record	Some improvements but not systematic	2%	
Wider Industry Interfaces	Wholly within Network Rail's control	0%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			53%

Table 39 Management of Change

A.35 Asset Performance & Health Monitoring *

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Risk & Review	Asset Performance & Health Monitoring	The processes and measures used by an organization to assess the performance and health of its assets using performance indicators.	
Network Rail Capability Statement	To review current asset performance indicators and where weaknesses exist, to put in place processes and measures to allow the health of assets to be measured.		
Network Rail Improvement Specification	<ul style="list-style-type: none"> Define suitable measures which can be used across the business to monitor asset performance and health Develop a body of knowledge on best asset management practices Develop and embed suitable monitoring processes to enable continual improvement 		
Network Rail Planned Activities	<ul style="list-style-type: none"> Launch , adopt and monitor new suite of periodic KPIs for CP5 Develop Body of Knowledge (BoK) for best practice asset management available across business (Sept 2014) Annual tailored programme of Route capability benchmarking, applied within AMEM Lite Continue to develop plans in response to findings of benchmarking activity 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> All new KPI's in place and in use as BAU BoK in place and reviewed on an annual basis Annual AMEM Lite benchmarking in place as BAU Demonstration of the existence change programmes which are in direct response to the findings of AMEM Lite
Baseline Score (based on timely achievement of all documented improvements)			85%
AMCL Roadmap Factors	None.		
Other Scope Opportunities	AMEM Lite should be considered under Subject 36. More focus on clear definitions of lifecycle measures and feedback into the Asset Management System / Asset Policies, including greater clarity of feedback loop from asset performance to continuous review/improvement against corporate objectives and outputs.		
Deliverability Risk Scores			
Available Level of Plan Detail	Outline Plans only	4%	
Delta from CP4 Exit Score	Delta >5<15	2%	
Current Level of Embedment	Substantial understanding of subject and development plans at Route level	1%	
Track Record	Demonstrable phases of improvement	1%	
Wider Industry Interfaces	Wholly within Network Rail's control	0%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			77%

Table 40 Asset Performance & Health Monitoring

A.36 Asset Management System Monitoring

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Risk & Review	Asset Management System Monitoring	The processes and measures used by an organization to assess the performance and health of its Asset Management System.	
Network Rail Capability Statement	Processes are in place for reviewing and auditing the effectiveness of the company's asset management processes and asset management system by means of a rolling programme of KPI's and audit (both internal and external).		
Network Rail Improvement Specification	To review the current Asset Management System Monitoring approach and in the light of the review, to define what additional measures are required to ensure the on-going maintenance or improvement of standards		
Network Rail Planned Activities	<ul style="list-style-type: none"> Launch, adopt and monitor new suite of KPI's for CP5 Develop Body of Knowledge (BoK) for best practice Asset Management and make available across business (Sept 2014) Network Rail Asset Management independently assessed as Excellent Benchmarking strategies for each asset / business unit / area are developed in line with corporate benchmarking framework Plans developed/updated in response to the findings of the annual benchmarking of route capability via AMEM Lite. 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> New KPI's reported periodically as part of BAU Evidence of continuous improvement to BoK Excellent score achieved Benchmarking planning and activity is a BAU activity with all assets at target benchmarking maturity model levels AMEM Lite established as BAU activity Evidence of route plans being reviewed and updated in accordance to the findings of the AMEM Lite process
Baseline Score (based on timely achievement of all documented improvements)			70%
AMCL Roadmap Factors	6.4, 6.5		
Other Scope Opportunities	Focus on Asset Management System management review process. Clarity of how adherence to the system and its overall fitness-for-purpose will be assessed and continually improved.		
Deliverability Risk Scores			
Available Level of Plan Detail	Outline Plans only		4%
Delta from CP4 Exit Score	Delta >=15		2%
Current Level of Embedment *	Limited understanding of subject at Route level and no available development plans		2%
Track Record	Some improvements but not systematic		2%
Wider Industry Interfaces	Wholly within Network Rail's control		0%
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			59%

Table 41 Asset Management System Monitoring

A.37 Management Review, Audit & Assurance

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Risk & Review	Management Review, Audit & Assurance	An organization's processes for reviewing and auditing the effectiveness of its asset management processes and asset management system.	
Network Rail Capability Statement	Processes to be in place to review and audit the effectiveness of its asset management processes and asset management systems.		
Network Rail Improvement Specification	To deploy the capabilities to carry out specific audits/reviews on potential Asset Management rationalisation and to put in place forums to debate the outcomes and to define refinements.		
Network Rail Planned Activities	<ul style="list-style-type: none"> Annual review of Asset Management System with corrective action developed for any shortcomings (AMEM Lite) Confirm presence of a systematic assurance and audit approach for Asset Management System (Mar 2015) Establish systematic approach and (improved tools to share work banks (Complete stated Engineering verification (programme (Review, monitor and debate reports (establishing corrective action plans if (required 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> Evidence of annual review process in place with continual improvement Evidence of Assurance and audit approach for Asset Management System embedded in business Establish approach on schedule Embedded annual review process in place Embedded annual review process in place
Baseline Score (based on timely achievement of all documented improvements)			76%
AMCL Roadmap Factors	6.5, 6.6		
Other Scope Opportunities	Focus on Asset Management System audit plan and feedback to management review via management of preventive / corrective actions.		
Deliverability Risk Scores			
Available Level of Plan Detail	Outline Plans only		4%
Delta from CP4 Exit Score	Delta >5<15		2%
Current Level of Embedment *	Substantial understanding of subject and development plans at Route level		1%
Track Record	Some improvements but not systematic		2%
Wider Industry Interfaces	Wholly within Network Rail's control		0%
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			67%

Table 42 Management Review, Audit & Assurance

A.38 Asset Costing & Valuation

GFMAM Group	GFMAM Subject	GFMAM Definition (The Asset Management Landscape Second Edition (www.gfmam.org))	
Risk & Review	Asset Costing & Valuation	An organization's processes for capturing 'as built', maintenance and renewal unit costs and the methods used by organization for the valuation and depreciation of its assets.	
Network Rail Capability Statement	Accounting practices to be put in place which allow the costs associated with both maintenance and renewal activities to be captured. To also put in place methods to allow the value and depreciation of assets to be monitored.		
Network Rail Improvement Specification	<ul style="list-style-type: none"> Ensure that the business has standard and agreed methods for capturing and reporting the key cost items associated with both Maintenance and Renewal activities To be able to assist in the definition of policies by means of these key cost items 		
Network Rail Planned Activities	<ul style="list-style-type: none"> Develop and implement key cost line (work for maintenance costs (Mar 2015) (Define Policy needs and resolve through key cost line work (Mar 2015) 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> Implemented to schedule Implemented to schedule
Baseline Score (based on timely achievement of all documented improvements)			77%
AMCL Roadmap Factors	2.16		
Other Scope Opportunities	Embedding of RMM and MUCs in particular, plus asset valuation and liabilities. Documented asset valuation methodology and register aligned with criticality analysis.		
Deliverability Risk Scores			
Available Level of Plan Detail	No plans or high-level milestones only	6%	
Delta from CP4 Exit Score	Delta >5<15	2%	
Current Level of Embedment	Limited understanding of subject at Route level and no available development plans	2%	
Track Record	Some improvements but not systematic	2%	
Wider Industry Interfaces	Wholly within Network Rail's control	0%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			65%

Table 43 Asset Costing & Valuation

A.39 Stakeholder Engagement

GFMAM Group	GFMAM Subject	GFMAM Definition (<i>The Asset Management Landscape Second Edition (www.gfmam.org)</i>)	
Risk & Review	Stakeholder Engagement	An organization's processes for capturing 'as built', maintenance and renewal unit costs and the methods used by organization for the valuation and depreciation of its assets.	
Network Rail Capability Statement	Accounting practices to be put in place which allow the costs associated with both maintenance and renewal activities to be captured. To also put in place methods to allow the value and depreciation of assets to be monitored.		
Network Rail Improvement Specification	<ul style="list-style-type: none"> Ensure that the business has standard and agreed methods for capturing and reporting the key cost items associated with both Maintenance and Renewal activities To be able to assist in the definition of policies by means of these key cost items 		
Network Rail Planned Activities	<ul style="list-style-type: none"> Develop and implement key cost line (work for maintenance costs (Mar 2015) (Define Policy needs and resolve through key cost line work (Mar 2015) 	Network Rail January 2018 Success Criteria	<ul style="list-style-type: none"> Implemented to schedule Implemented to schedule
Baseline Score (based on timely achievement of all documented improvements)			74%
AMCL Roadmap Factors	None.		
Other Scope Opportunities	Structured stakeholder management approach, including documented stakeholder management and engagement policies, processes and plans.		
Deliverability Risk Scores			
Available Level of Plan Detail	No plans or high-level milestones only	6%	
Delta from CP4 Exit Score	Delta >5<15	2%	
Current Level of Embedment	Clear understanding of subject in Routes	0%	
Track Record	Demonstrable history of systematic and sustainable improvement	0%	
Wider Industry Interfaces	Critical dependencies on external parties	3%	
Lower Estimate Score (based on Baseline Score minus Deliverability Risk Scores)			63%

Table 44 Stakeholder Engagement

Appendix B CP4 Roadmap Recommendations

The following table shows where the Improvement Specifications of AMCL's 2012 Asset Management Roadmap, developed on behalf of Network Rail, have been evidenced as included in the current CP5 Roadmap documentation. This represents the headline view of AMCL only, based on the evidence provided by Network Rail to support the prima facie review of the CP5 Roadmap. Whilst good evidence was available in a number of areas of Network Rail's plans, some were still lacking detail and required further evidence against one or more individual items in the relevant Improvement Specification from the 2012 Asset Management Roadmap.

Group	2012 Ref.	End of CP4 Status	Fully Covered by CP5 Roadmap?*	Improvement Specification Partially Outstanding?*
Asset Management Strategy & Planning	1.1	Partially Achieved	Yes	
	1.1	Achieved	n/a	
	1.3	Partially Achieved	Yes	
	1.4	Achieved	n/a	
	1.5	Achieved	n/a	
	1.6	Achieved	n/a	
	1.7	Achieved	n/a	
	1.8	Partially Achieved	No	Yes
	1.9	Achieved	Yes	
	1.10	Partially Achieved	Yes	
	1.11	Not Achieved	Yes	
1.12	Achieved	n/a		
Whole-life Cost Justification	2.1	Achieved	n/a	
	2.2	Partially Achieved	No	Yes
	2.3	Partially Achieved	No	Yes
	2.4	Achieved	n/a	
	2.5	Not Achieved	No	Yes
	2.6	Not Achieved	No	Yes
	2.7	Partially Achieved	No	Yes
	2.8	Achieved	n/a	
	2.9	Achieved	n/a	
	2.10	Partially Achieved	Yes	
	2.11	n/a	n/a	
	2.12	Not Achieved	Yes	Yes
	2.13	Achieved	n/a	
	2.14	Achieved	n/a	
	2.15	Not Achieved	Yes	
2.16	Partially Achieved	No	Yes	
Lifecycle Delivery	3.1	Not Achieved	Yes	
	3.2	Partially Achieved	No	Yes
	3.3	Achieved	n/a	

Group	2012 Ref.	End of CP4 Status	Fully Covered by CP5 Roadmap?*	Improvement Specification Partially Outstanding?*
	3.4	Achieved (with minor deficiencies)	No	Yes
	3.5	Partially Achieved	Yes	
	3.6	Partially Achieved	Yes	
	3.7	Not Achieved	No	Yes
	3.8	n/a	n/a	
	3.9	Partially Achieved	No	Yes
	3.10	Achieved	n/a	
	3.11	Partially Achieved	No	Yes
Asset Knowledge	4.1	Achieved	n/a	
	4.2	Achieved	n/a	
	4.3	Achieved	n/a	
	4.4	Achieved	n/a	
	4.5	Partially Achieved	Yes	
	4.6	Partially Achieved	Yes	
	4.7	Achieved	n/a	
Organisation & People	5.1	Not Achieved	Yes	
	5.2	Not Achieved	Yes	
	5.3	Partially Achieved	Yes	
	5.4	Partially Achieved	No	Yes
	5.5	Achieved	n/a	
	5.6	Not Achieved	Yes	
	5.7	Achieved	n/a	
Risk & Review	6.1	Partially Achieved	No	Yes
	6.2	Achieved	n/a	
	6.3	Achieved	n/a	
	6.4	Partially Achieved	No	Yes
	6.5	Partially Achieved	No	Yes
	6.6	Not Achieved	No	Yes
	6.7	Partially Achieved	Yes	
	6.8	Achieved	n/a	

*Based on AMCL's prima facie review of Network Rail's CP5 Roadmap