Asset Information Services Strategic Plan

V3.0 – January 2018

Contents

1. Purpose, role & vision

1.1 Purpose

Asset Information Services (AIS) provides Network Rail and the rail industry with insight, intelligence and reporting on railway network assets, allowing informed asset management and safety-related business decisions to be made.

1.2 Role

We are responsible for enabling and providing asset data, intelligence and insight through the delivery of key services across three centres of excellence – data collection, data management and data services.

Our services include the collection of asset condition data through train-borne systems, plain line pattern recognition (PLPR) and aerial surveys; the management and maintenance of systems and registers including the geospatial Track Centre Line model, the Asset Data Store and the corporate works management system Ellipse; and the provision of over 140 corporate, regulatory and safety-related reports each period.

AIS also manages key tools used by operational and asset management colleagues and professional communities that allow faster, smarter, more efficient and informed decision-making through specialised, detailed views of the railway network and associated assets in easy access formats, including the Linear Asset Decision Support tool (LADS) and the Geo-RINM Viewer.

We are a key part of the Group Digital Railway (GDR) directorate, a central function providing the centre of excellence for data services and telecommunications to the GB railway, and delivering a key transformation program – the Digital Railway Programme. Asset Information services and products inform and support the key asset management decisions that enable the safe, efficient and effective delivery of the operational railway.

1.3 Vision

Asset Information Services

To inspire and enable through the power of data

We serve **NetworkRail** and the GB rail industry as the trusted source of asset-related information and insight from which informed business decisions can be made.

WHY we are doing it

To enable the optimal and sustainable balancing across the railway system of

investment,

safety risk,

and performance,

to deliver a better railway for a better Britain

WHAT we are trying to achieve

Appropriately manage our public funds to satisfy our stakeholders

Run our supply chain efficiently, cost effectively, and with appropriate resilience

Maintain, manage, and provide a portfolio of services that are relevant and meet our customer's and organisation's needs

Understand our customer's needs, forecasting demand and meeting requirements wherever possible

HOW we are going to do it

1. Be operationally excellent
   a) Deliver right first time
   b) Minimise variations to reduce costs and improve efficiency
   c) Always strive to be better every day through structured continuous improvements

2. Have an engaged, diverse, committed, positive, and motivated workforce

3. Be accountable, challenging, collaborative and customer driven; always considering our health, safety, and wellbeing

Our vision is: **To serve Network Rail and the GB rail industry as the trusted source of asset-related information and insight from which informed business decisions can be made to optimally and sustainably balance investment, safety risk, and performance across the railway as a system.**

Introducing our strategy:

Our CP6 strategy focuses on providing the railway industry with a managed portfolio of services that are relevant and meet our customer's needs, enabling the optimal and sustainable balancing of investment, safety risk, and performance of the railway. It also supports Network Rail's strategic asset management business plans and is a key foundation for the digital railway.

In CP6 we will be focussing on these priorities:

- obtaining infrastructure information from service trains, reducing the need for a dedicated infrastructure condition monitoring fleet

- extending AIS's management of data to all asset and operational data and information that has a defined value to the organisation

- developing the data management and analysis services we offer to Network Rail businesses and the wider rail community to enable the more efficient operation of the railway asset base

- increasing the cost efficiency, resiliency and sustainability of our systems and services, thereby reducing risk to the business

Rationale

As the railway evolves a key expectation in CP6 is that the operational and capital costs of the railway will reduce. Data and information is a key enabler to achieving this and with the introduction of a digital railway and devolution within Network Rail, we must provide what our customers require in order to meet this challenge and support the delivery of current and future railways.

Our strategy has been designed to help our key customers, the route businesses, make informed decisions about the most appropriate interventions for their assets – from safety risk to lifespan – allowing them to offer more reliable services to their customers, the train- and freight-operating companies and ultimately, passengers.

Our strategy also considers the changing nature of data and data processing, and the expected increased demand for more regular and more detailed data and intelligence. To this end, AIS is also delivering automation opportunities which will streamline data processing requirements, releasing resources, reducing costs and improving productivity.
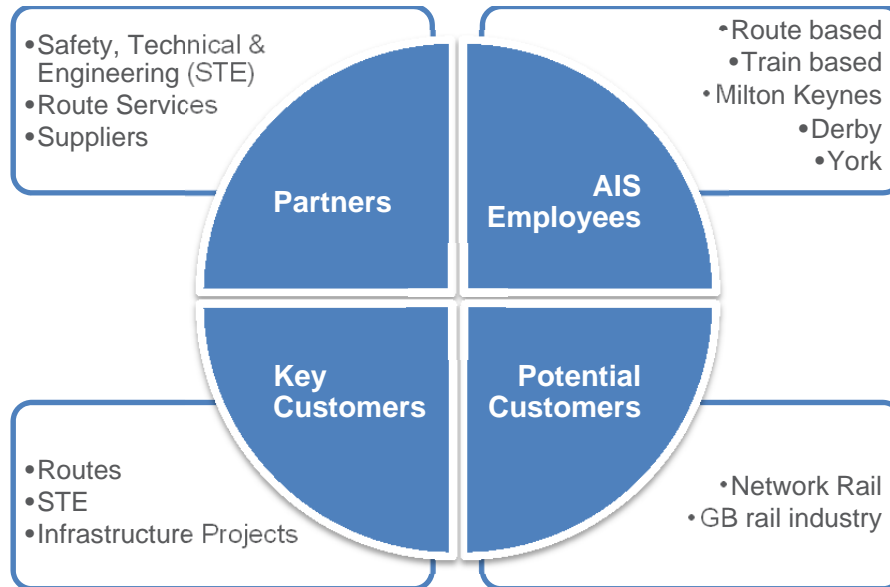
Several of our services rely on assets or systems that are operating beyond their designed life or are out of, or increasingly difficult to, support, with the increased risk of failure that this entails. We need to refresh and upgrade these assets and investigate and invest in automation where appropriate in order to improve resilience, reduce failure and deliver sustainable services. This will deliver cost-savings and decrease safety risk throughout the national network by reducing the need for recovery activities and associated disruption to passengers, customers and stakeholders.

To deliver our strategy, our submission reflects the need to provide resilient and sustainable products, systems and services that meet our customers' and the GB railways' changing needs.

2. Objectives & Stakeholder priorities

2.1 Stakeholders & priorities

Our key stakeholders are found in four main groups:

Partners
- Safety, Technical & Engineering (STE)
- Route Services
- Suppliers

AIS Employees
- Route based
- Train based
- Milton Keynes
- Derby
- York

Key Customers
- Routes
- STE
- Infrastructure Projects

Potential Customers
- Network Rail
- GB rail industry

Customer and stakeholder engagement

AIS' CP6 plans have been developed in conjunction with all four main stakeholder groups through a series of meetings. The process has focussed on key customers, partners and employees; there has also been engagement with wider industry. The Intelligent Infrastructure Programme carried out a comprehensive review of stakeholder requirements for future asset data demands. The output of this programme, to be delivered by STE, will contribute to the future of AIS's services in CP6.

Ongoing customer and stakeholder engagement
Through our key business objective to increase the value customers place on our services, we have a dedicated account management team that are locally based and carry out a series of formal and informal meetings with our customers. The purpose of these is to provide information on the performance of our services, support the integration of business change capabilities into our customer base, and gather requirements for future enhancements or impact on demand.

Addressing stakeholders' priorities
Our plan is based around enabling our key stakeholders to meet their operational requirements, and in providing the tools and maintaining the asset data and information systems that support asset management decisions. Outlined below are the output requirements from our key stakeholders. In order to meet these needs, AIS has seven key business objectives which are identified in section 2.3 below to deliver these stakeholder needs.

Stakeholder	Prioritised needs
Route Businesses	Meet standards requirement at minimum cost and disruption Resilient train borne asset monitoring services, including PLPR, structure gauging, ultrasonics and track geometry Availability and enhancement of data, tools & reporting to support key asset related decisions Understand quality of data in existing asset data systems
STE	Provision of a resilient and sustainable structure gauging service To contribute to the development of the Intelligent Infrastructure Programme and adapt our service portfolio to accept the agreed outputs
IP	Ability to access data on demand and by their supply chain Easy mechanism to exchange asset data throughout the lifecycle of a project

2.2 Specific objectives and KPI's

1. **Embed the AIS vision within our organisation**

Owner: Head of Service Performance
Value: embedding the vision and associated culture supports the delivery of all our other objectives by underpinning AIS' operating model that enables the effective and cost-efficient delivery of a range of agreed services to our customers and stakeholders.

2. **Enable our people to drive continuous improvement**

Owner: Head of Business Management
Value: providing our people with the tools, processes and frameworks to deliver structured continuous improvement, enables them to drive efficiency and value into AIS services and customer delivery, contributing to making things Better Every Day and increasing overall employee engagement.

3. **Work together to deliver right first time services**

Owner: Head of AIS Service Portfolio
Value: collaboratively working with customers to understand requirements and develop sustainable, reliable and consistent services that deliver right first time performance, drives down AIS service delivery costs and removes the need to undertake recovery activities, reducing costs to the wider business.

4. **Manage effective change through portfolio and service management processes**

Owner: Head of AIS Service Portfolio
Value: through effective business and service change management new and enhanced capabilities and services are delivered to our customers on time and with the minimum disruption, enabling earlier or on time realisation of identified benefits for AIS and its customers.

5. **Increase the value customers place on our services**

Owner: Head of Service Performance
Value: understanding our customers and their evolving needs in a devolved environment enables AIS to develop and deliver consistent services, forecast future service demand and drive down cost through more effective and informed forward planning.

6. **Fully align our services with our strategy**

Owner: Head of AIS Service Portfolio
Value: minimising variation in the services AIS provides and focussing on ensuring that our delivery reflects customer needs allows us to maintain our operational efficiency and deliver to budget.

7. Manage our supply chain effectively

Owner: Head of Supply Chain
Value: understanding and balancing demand against our ability to satisfy that demand enables us meet the quality of outputs required through the effective and efficient use of our people and resources, whilst understanding, managing and driving down unit costs.

Objective	What it will deliver								
	Improved employee engagement	More resilient services	Improved product quality	Decreased operating cost	Improved operational efficiency	Better service planning	Improved customer relations	Improved transition of capabilities	More collaborative working
1. Embed the AIS vision within our organisation	✔	✔	✔	✔	✔	✔	✔	✔	✔
2. Enable our people to drive continuous improvement	✔				✔				✔
3. Work together to deliver right first time services		✔	✔	✔	✔		✔		✔
4. Manage effective change through portfolio and service management processes	✔						✔	✔	✔
5. Increase the value customers place on our services						✔	✔		
6. Fully align our services with our strategy				✔	✔		✔		
7. Manage our supply chain effectively		✔	✔	✔	✔				

Strategic Objective	KPI	Target	Desc.
Embed the AIS vision within our organisation	Engagement of employee in AIS' strategic direction. Employee engagement index.	3.90 74%	1 is worse 5 is best % promoters less % detractors
Enable our people to drive continuous improvement	Progress against CI maturity model. Tier 2 CI Benefits Realised following Completion of CI Initiatives. (reported Quarterly)	Level 3 (by March 2019) £107,200	Network Rail model Annual benefits realised
Work together to deliver right first time services	Customer satisfaction.	4	Customer satisfaction score
	Offerings Delivered within SLA. - Track geometry - Ultrasonics - PLPR - Rail profile - S and C dynamic - Power distribution - Telecoms data - Decision support - Infrastructure modelling - AI reporting - Controlled documents - Wheel impacts - National Vehicle Register - NHDMT - Asset data management - Executing work - Geo analytical intelligence - Worksite survey	95%	% outputs delivered within SLA

	Offerings Delivered within SLA. • Structures	100%	% outputs delivered within SLA
Manage effective change through portfolio and service management processes	Delivery against roadmap milestones.	100%	Forecasted delivery of milestones achieved.
	Alignment with Delivery Partners. (DP)	100%	% of projects passing DP gates which passed OLM gates.
	Compliance of Offerings against portfolio criteria.	100%	% offerings taken through portfolio criteria in the past one year.
Increase the value customers place on our services	Account plans on target.	95%	% Customers on plan.
	Customer awareness.	4.0	Awareness score from customer engagements.
	Customer NPS.	0%	% promoters less % detractors.
Fully align our services with our strategy	OPEX on non - aligned products.	1.5%	% OPEX spent on non - aligned offerings.
	Alignment to CP5 funding.	£187.6m	OPEX at current run rate to target agreed for CP5.
Manage our supply chain effectively	Forecasting accuracy.	90%	% volume delivered to Forecasted.
	Effective resource utilisation.	74%	% effort spent on delivering offering outputs.
	Unit cost reduction.	-3%	% change in unit costs.

3. What Asset Information Services is

3.1 Structure

The primary focus of AIS is to provide insight, intelligence and reporting on railway network assets to Network Rail and the GB rail industry. We are a service provider to Network Rail for asset related data and specify, collect, evaluate, collate, analyse and communicate information about Network Rail's infrastructure assets to enable accurate, informed asset management decisions to be made that balance cost, risk and performance.

Asset Information Services was brought together in 2010 to create a centre of excellence for asset data. The teams were restructured in April 2015 to align with the new operating model, detailed in section 3.2. Today we have around 300 people working out of three locations and on a fleet of infrastructure measurement trains, with a small account management team working across routes. We are part of the Group Digital Railway (GDR) directorate that includes Network Rail Telecoms and the Offering Rail Better Information Services (ORBIS) and Digital Railway programmes. Our primary customers are the route businesses, together with the Safety, Technical and Engineering directorate and Infrastructure Projects.

The teams that make up Asset Information Services are;

1. Supply Chain, formed of
   a. Data Collection
   b. Data Management
   c. Data Services
2. Service Performance
3. Service Portfolio
4. Development
5. Business Management

All the above are supported by designated GDR Finance and HR teams.

There are three centres of excellence within the AIS Supply Chain which together deliver our asset information services, which are needed for the operational railway to succeed.
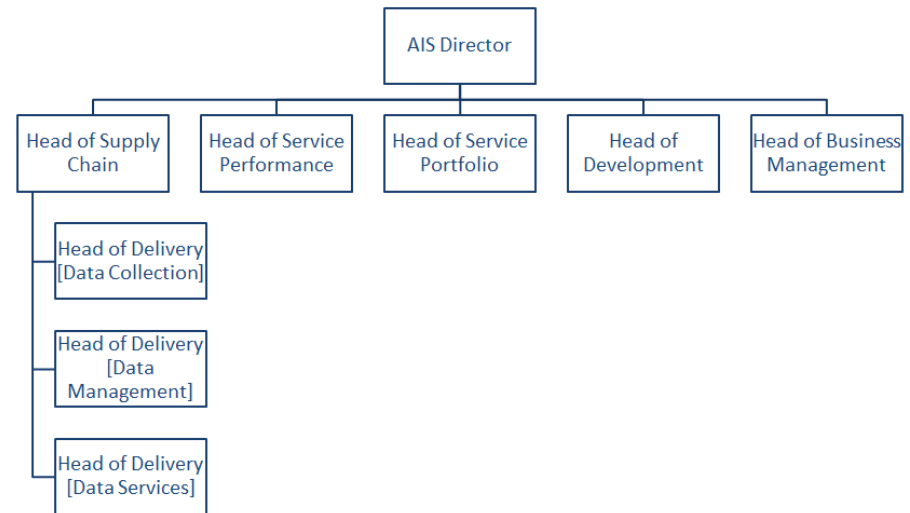
Asset Information Services organisational structure

Supply Chain
At the heart of our business the Supply Chain covers the following:

Supply Chain: Data Collection
Data Collection comprises the collection of asset condition data related to infrastructure from specialist trains, collecting 18 different data streams from rail profiles to structure gauging. This is captured using a variety of technologies fitted to the infrastructure monitoring fleet.

Supply Chain: Data Management
Data Management delivers ongoing collation, processing, and evaluation of the data received from Data Collection and other data sources, including Infrastructure Projects and trackside colleagues. This team additionally maintains the asset information specifications, which define the data required about assets and their associated attributes to meet business needs.

Supply Chain: Data Services
Data Services delivers information and insight to our customers through an integrated business reporting service including the provision of managed services, geospatial maps, and other reporting formats for corporate and regulatory purposes.

Service Performance
This team covers three areas: customer account managers who develop and maintain relationships with key stakeholders providing a single point of contact; systems and service management team providing second line technical support for corporate asset management systems and applications; and communications.

Service Portfolio
This team develop a coherent and balanced portfolio of services and manage them through their lifecycle, taking into account the requirements of our customers, the impact of competitors, the state of the market, our strategic objectives and financial considerations. The service portfolio managers each manage a set of services and are responsible for making sure these meet their service delivery levels.

Development
The team manage the relationships between AIS and the programmes, connecting them with the service portfolio team and technical experts within the supply chain, facilitating the transition of new products and capabilities into AIS. They work closely with development programmes across Network Rail (e.g. ORBIS) to define the processes to transition their outcomes into services for our customers.

Business Management
This team provides support to all other areas of AIS with key expertise in the areas of corporate and legislative governance, risk and assurance, strategic and financial planning; the team also leads internal development and continuous improvement activities and provides a project management resource to support the delivery of internally led projects.

3.2 Operating model – present and future

We constantly strive to be operationally excellent, meaning that as a business we seek to:

- minimise the variation in services and products in order to drive quality and efficiency;
- ensure the integrity of our supply chain by driving operational efficiency; and
- embed structured continuous improvement.
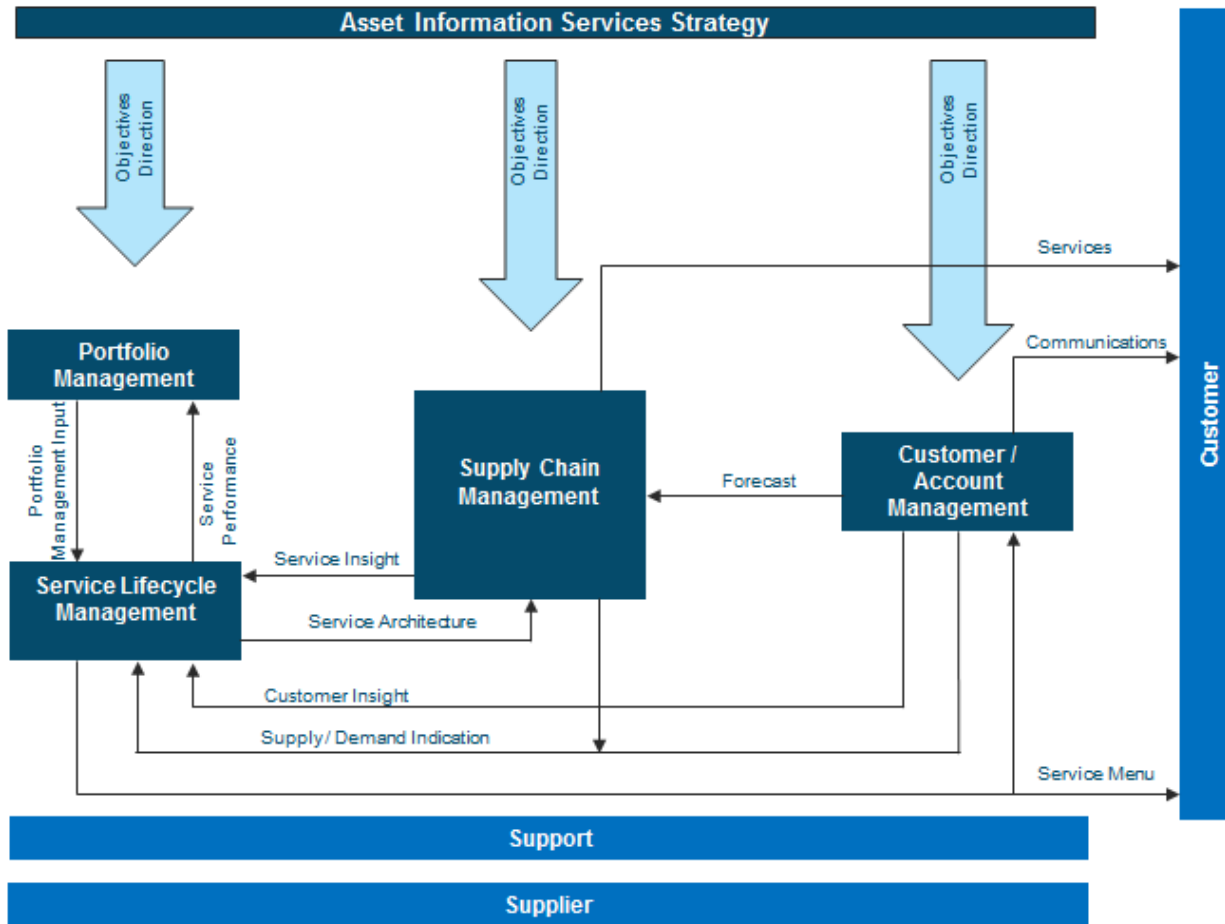
We manage our services as portfolios through their lifecycle using the service lifecycle management (SLM) process, understanding how they will change over time and with a clear plan to introduce, enhance and retire services as appropriate. Our immediate focus is on the quality and cost of our services; this means that in the short term we will not actively seek to expand our customer base beyond our current, established customers. Through CP6 and in light of devolution we will review our operating model and determine if it can be leveraged to provide services to a larger and more diverse customer base.

We deliver our services through four key portfolios:

Portfolio	Purpose	Service examples
Know My Assets	This group of services enables customers to understand their assets; to collect the required data, store it, and use it effectively based on information on data integrity.	• Data collection including structure gauging, ultrasonics and track geometry; infrastructure modelling, • Asset data management which includes the asset information specifications.
Enabling Decisions	These services enable the decision-making process for customers. It includes a variety reporting and data visualisation solutions and decision support capabilities	• Asset information reporting • Decision support tools such as LADS • Geo-analytics – the provision of data and mapping outputs to present and visualise analysis and mapping of assets and surrounding influencing environment
Worksite Survey	These services provide customers with worksite information that support planning and operational activities and enable more effective execution of work through mobile solutions.	• Worksite survey which provides detailed packs collating Network Rail, geological and third party assets on underground or buried assets and services; • Works management tools including My Work, field data manager, and the fault code look-up and Where am I? mobile apps
Corporate Capability	Services where the customer leverages the capability within Asset Information Services to provide Network Rail the required services; however, these may not align directly to our scope or strategy or be restricted to asset information data.	• Controlled documents distribution • Wheel impacts analysis • National vehicle register

4. Risks, opportunities, constraints & assumptions

No.	Key constraints, risks and opportunities	What we plan to do	Owner	Timescale (start/ finish)
A	**R: Workforce:** Failure to provide the people (capabilities, competencies and capacity) required to fully exploit AIS services due to: - poor business planning - ineffective operating model - increasing competition in the marketplace	**Key controls tracked via the AIS enterprise risk record:** - Workforce competency management and capability development - Workforce capacity planning - Continuity management planning (People) **Current improvement actions:** - Develop and implement an AIS People Plan - Review and update AIS timecards - Review and update AIS business continuity plans	Director, AIS	Controls are tracked quarterly as part of business as usual (BAU). All current actions to be completed during FY18
B	**R: Tools and system capabilities:** 1. Failure to provide the tools and systems required to fully exploit AIS services and products due to: - poor business planning - ineffective operating model 2. Failure to sustainably support technical systems due to: - poor systems management - incompatibility between AIS systems and IM platforms	**Key controls tracked via the AIS enterprise risk record:** - Continuity management planning (Systems / Processes) - System architecture mapping - Systems management **Current improvement actions:** - Review and update AIS business continuity plans - Complete an audit of the IT systems that AIS are the business system owner of, to identify whether AIS is undertaking the correct accountabilities - Carry out full review of this control following the audit to identify further or longer term improvement actions	Head of Development Head of Service Performance	Controls are tracked quarterly as part of BAU. All current actions to be completed during FY18
C	**R: Functional strategy and Business Plan:** Failure to understand our purpose in the face of a changing business context: - Changing customer requirements - Changing business context	**Key controls tracked via the AIS enterprise risk record:** - CP5 & CP6 strategy planning - Service safety - Account management - Communications strategy - Service Portfolio strategy - Costing - Data sharing / licensing - Regulatory Interfaces / governance **Current improvement actions:** - Develop processes for the application of CSM across AIS and agree formal representation at ISRP for AIS related changes - Gain agreement of customer service level agreements (SLAs) at route and national level - Develop a stakeholder plan - Work with Finance to develop fully loaded costing model	Director, AIS	Controls are tracked quarterly as part of BAU. All current actions to be completed during FY18

D	**R: Operating model** Failure to manage and develop a safety conscious operating model required to deliver our service portfolio, manage the scope, efficiency and effectiveness of the AIS Operation and develop the enhancements required to meet CP5 needs due to: - Failure to transition the AIS business strategy into a successful service delivery operation, aligned to corporate objectives and the strategic business plan (SBP) - Failure to monitor the scope, efficiency and effectiveness of the AIS operation (services) via robust internal reporting and key metrics.	**Key controls tracked via the AIS enterprise risk record:** - Unit / Fully loaded costing - Data sharing / licensing - Regulatory interfaces / governance - Service portfolio management - Supply Chain / Supplier management - AIS functional assurance (Audits, GALP, LMSA) **Current improvement actions:** - Update all service architectures and service improvement plans following service architecture audit - Complete actions identified by the recent contract management audit	Head of Service Portfolio Head of Supply Chain	Controls are tracked quarterly as part of BAU. All current actions to be completed during FY18
E	**R: Ineffective implementation of business change / Non alignment of programme deliverables to AIS operational requirements** 1. Failure to further develop the AIS operation / services due to lack of effective operational change processes. 2. Inappropriate delivery from wider Network Rail into AIS operations due to lack of appropriate business change process	**Key controls tracked via the AIS enterprise risk record:** - Business planning / management (financial management / re-forecasting) - Development / Service lifecycle management controls: a) Concept b) Develop c) Implement d) Enhance e) Retire **Current improvement actions:** - Complete service lifecycle management and assurance panel and implement agreed actions	Head of Business Management Head of Service Portfolio	Controls are tracked quarterly as part of BAU. All current actions to be completed during FY18
F	**R: Performance Management** Failure to monitor the scope, efficiency and effectiveness of the AIS operation, including the extended supply chain via robust internal reporting and key metrics	**Key controls tracked via the AIS enterprise risk record:** - Workforce competency management and capability development - Regulatory interfaces / governance - Service portfolio management - Supply Chain / Supplier management - AIS functional assurance (Audits, GALP, LMSA) - Business planning / management (financial management / re-forecasting) **Current improvement actions:** - Develop and implement an AIS People Plan - Update all service architectures and reporting following service architecture audit - Complete actions identified by the recent contract management audit	Head of Service Portfolio Head of Supply Chain Head of Business Management	Controls are tracked quarterly as part of BAU. All current actions to be completed during FY18

G	**R: Customer / Stakeholder relationship management** Failure to maintain effective relationships with key customers and stakeholders, impacting our reputation and resulting in a greater level of uncertainty of our business plan realisation - Poor industrial relations resulting in adverse impacts on our ability to deliver our services - Misalignment between AIS and route / customer requirements caused by poor route customer engagement and communication - Failure to establish engagement strategies for new market opportunities within Network Rail (e.g. the supply chain) will impact business opportunities	**Key controls tracked via the AIS enterprise risk record:** - Account management - Communications strategy - Service portfolio strategy - Service portfolio management **Current improvement actions:** - Develop CP6 demand forecast and review forecast to end of CP5 - Define the single point of contact process(Head of Service Performance) - Agreement of customer SLAs at route and national level - Develop a stakeholder plan - Work with Finance to develop fully loaded costing model	Head of Service Performance Head of Service Portfolio	Controls are tracked quarterly as part of BAU. All current actions to be completed during FY18
H	O: Extend NIM model to other datasets within NR to generate revenue during CP6	Leverage existing skills and competencies within AIS to identify potential areas for growth.	Head of Supply Chain Head of Service Portfolio	On-going throughout the CP6
I	O: Combine all NR Data Collection activities within AIS to realise efficiencies	Strategic overview of current Data Collection service points within Network Rail, associated costs and future delivery model.	Head of Supply Chain Head of Service Portfolio	April 2019 – March 2021
J	O: Seek income generating activities in HS2 and Crossrail etc.	Horizon scan Network Rail wide opportunities to generate such income. Strategic and subsequent operational level working to realise benefits.	Head of Business Management	April 2018 – March 2021
K	O: Investment into improvement activities identified through Continuous Improvement will enable better productivity and reduced costs.	Level 3 continuous improvement maturity achieved across AIS in CP5 that enables further efficiencies to be realised in CP6.	Head of Business Management	April 2017 – End of CP6
L	O: Efficiently manage our vacancies to optimise costs and workloads.	All recruitment into vacancies is managed to optimise efficiency savings.	Head of Business Management	On-going
M	O: Ensure, wherever possible, that we retain individuals' skills within AIS.	Colleagues who may be displaced as a result of improvements to services will, wherever possible, be redeployed into roles within AIS thus preserving valuable sector and business knowledge, skills and experience.	Head of Business Management	On-going

N	O: Increase our financial recoveries through the implementation of fully costed services.	It is proposed to baseline the volume of the services delivered in our portfolio giving customers options to pay for any additional work above the agreed baseline.	Head of Service Portfolio Head of Business Management	June 2017 - March 2022
O	O: Seek opportunities to generate even greater efficiencies in CP6.	Continuously review areas of the business to realise greater efficiencies, in particular the following areas represent the greater opportunities; Contracts – working with NRT's commercial experts to find opportunities to reduce the amount we spend on contracts with third parties and NSC. Duty passes for the OTTs - it is anticipated to be less than the amount we currently spend on travel, and would save time on booking. DCSE business cases – a number of cases originally proposed, but put on hold, will be reviewed.	Director, AIS	On-going throughout CP5 and CP6
P	O: Consider outsourcing of services and functions.	Carry out a review of all AIS functions to ascertain those that could be outsourced and carry out feasibility studies as required. Set up projects and implement as required.	Director, AIS	June 2017 – March 2023
Q	O: Investigate the potential for increased data collection.	Investigate the potential for more passenger/freight train functionality.	Head of Supply Chain	Throughout CP6
R	C: Organisational decisions that may impact upon AIS funding.	1. Network Rail decision not to reduce band 5 to 8 headcount constrains operating model 2. Availability of investment for operational improvement activities (e.g. improving operational resilience) 3. Network Rail strategic change from centralised funding to route based funding may affect budget and constrain development and delivery of AIS services	N/A	Throughout CP6
S	C: Network Rail contracts and purchasing policies that impact upon the supply chain.	1. The Network Rail operating model requires AIS into using internal suppliers (e.g. RSIT and C&P) rather than look for potentially more suitable external suppliers; 2. Single source suppliers in the marketplace (due to specialist requirements) leave AIS in a weak bargaining position and affects costs.	N/A	Throughout CP6
T	C: AIS operating model prohibits innovation or variation to services.	An operationally excellent operating model constrains the scope for development of novel or varied services to meet specific or regularly changing customer requirements	N/A	Throughout CP6; but we will regularly review our operating model
U	C: Skills and knowledge gaps due to lack of funds and organisational policy.	Funding (including for resourcing) constraints affect our ability to recruit, develop and retain specific skills that our competitors may have access to. Inconsistencies in role profiles and reward leading to retention issues within AIS.	N/A	Throughout CP6; we will however regularly review our training and development requirements and seek ways to meet this gap in other ways.
V	C: Regulatory compliance implemented	Legislation, policies and standards constrain the development and delivery of AIS	N/A	Throughout CP6

	without fully understanding the impact upon AIS.	services		
W	C: Organisational risk tolerance influencing service development opportunities.	Network Rail is averse to safety risk at the expense of performance, reputation and finance. This can constrain the development and delivery of AIS services	N/A	Throughout CP6
X	C: Organisational procurement policies impacting upon AIS operations.	1. AIS procurement is constrained by C&P capacity and capability as unable to source procurement externally. 2. Procurement is constrained by a requirement to comply with UK government body procurement legislation that our competitors may not have to adhere to.	N/A	Throughout CP6

4.1 Notable assumptions

It is assumed that the costs for providing the PLPR, S&C dynamic inspection and Eddy Current services, currently off-charged in CP5, will be wholly borne by AIS in CP6

It is assumed that any capital projects that require new or enhanced services from AIS will have made appropriate OPEX provision in their function's SBP submission

Excluding those agreed service volume increases that are included in this SBP, it is assumed that OPEX costs associated with any increase in required volumes, quality and performance of AIS services above current levels will be borne by customers

Costs for the infrastructure condition monitoring fleet and associated systems assume a successful Route Services bid for CAPEX to deliver new trains; life extension of the current fleet will result in increased costs and risk of service degradation

It is assumed that any increase in costs for maintaining IT systems upon which AIS is dependent are borne by RSIT (i.e. support, mandatory upgrades, licences, etc.)

It is assumed that there are no AIS services that will be devolved to the route businesses in the remainder of CP5 and in CP6

It is assumed that if there is a requirement for AIS to provide bespoke customer-specific services under devolution the customer will bear any CAPEX and additional OPEX costs

5. Expenditure & efficiency

5.1 Cost and volume summary

Expenditure (post headwinds and efficiencies in 17/18 prices)

Unit of measure		CP5						CP6						CP7
		14/15	15/16	16/17	17/18	18/19	CP5	19/20	20/21	21/22	22/23	23/24	CP6	24/25
Renewals	£m						-	4	10	10	4	-	28	-
Controllable OPEX	£m	41	38	36	38	38	191	56	56	51	48	48	260	48
Non-controllable industry costs	£m						-	-	-	-	-	-	-	-
Total	**£m**	41	38	36	38	38	191	60	66	61	52	48	288	48
Permanent headcount		286	268	301	319	335	335	349	351	351	351	351	351	351
Agency		-	-	-	-	-	-	-	-	-	-	-	-	-
Total headcount		286	268	301	319	335	335	350	351	351	351	351	351	351

The OPEX increase between final year CP5 and start of CP6 is largely down to services chargeable to routes in CP5 (PLPR, S&C dynamic inspection, Eddy Current) being borne wholly by AIS in CP6.

Summary of costs by team or activity within the function

Activity/team	CP6 total (£m)	Comments
Data Collection	£186m	Includes headcount, 3rd party contracts and costs of running IM Fleet trains
Data Management	£40m	Mainly headcount costs for data processing & analysis
Data Services	£12m	Mainly headcount costs for data reporting
Other areas	£22m	Covers all other departments within AIS
Renewals	£28m	Various initiatives to enhance the resilience and stability of train borne hardware & equipment and systems.
Total	**£288m**	

NB Accomodation, training and GDR leadership cost held separately within GDR Support.

5.2 Route Business Scotland details

Controllable Opex:

	CP5 Year			CP6 Year					CP6 total
	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	
National Cost (£m)	36	38	38	56	56	51	48	48	**260**
Scotland Cost (£m)				6	6	5	5	5	**27**
Scotland (%)				10.7%	10.6%	10.5%	10.5%	10.5%	10.5%
Basis for allocation to Route Business Scotland	Train Miles								

Renewals:

	CP5 Year			CP6 Year					CP6 total
	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	
National Cost (£m)	0	0	0	4	10	10	4	0	**28**
Scotland Cost (£m)				0	1	1	0	0	**3**
Scotland (%)				10.7%	10.6%	10.5%	10.5%	10.5%	10.5%
Basis for allocation to Route Business Scotland	Train Miles								

5.3 Cost drivers, headwinds and efficiency

Summary of cost changes between CP5 and CP6

CP5 to CP6 Cost Drivers (including scope and cost impacts)
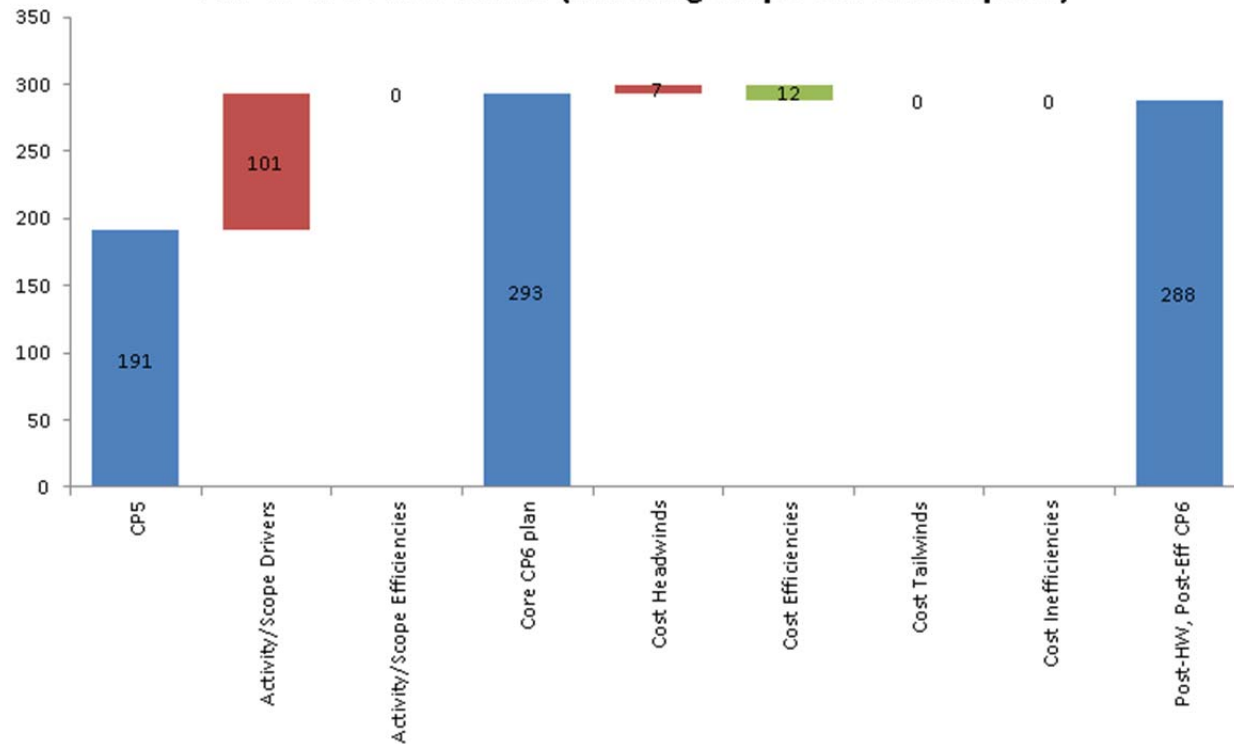
£101m Activity/Scope Drivers breaks down into:

- £35m chargeable services in CP5 wholly borne within AIS plan for CP6
- £39m resilience investment to replace end of life hardware and unsupported critical software
- £12m aerial survey activity
- £7m due to standards compliance (Asset Data Governance & Fatigue Risk Management)
- £5m due to increased route required activity in CP6

Summary of Asset Information Services efficiency

Totex (O,M,R)	Year			Year					CP6 total
	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	
Pre-efficient plan[1] (£m)	36	38	38	59	66	63	54	51	293
Activity/scope efficiencies (%)				-	-	-	-	-	-
Core plan (£m)				59	66	63	54	51	293
Head winds (%)				2%	2%	2%	3%	3%	2%
Efficiency (%)				-1%	-1%	-5%	-6%	-7%	-4%
Tailwinds (%)				-	-	-	-	-	-
Inefficiency (%)				-	-	-	-	-	-
Post-HW, post-Eff spend (£m)				60	66	61	52	48	288

Reasons for increase between 18/19 and 19/20:

- CAPEX resilience spend (£4m) held in 19/20. Comparable OPEX spend in 19/20 is £55m
- £7m increase due to costs of chargeable services in CP5 (PLPR, Eddy Current, S&C dynamic inspection) being borne wholly by AIS in CP6
- £5m due to Aerial Survey activity – the spend profile of which is weighted towards the start of the Control Period
- £2m due to OPEX resilience spend to provide additional support for back office systems
- £2m due to increased activity resulting from standards changes (e.g. Asset Data Governance, Fatigue Risk Management) and increases to electrification asset volumes in CP5.

---

[1] Note that pre-efficient plan is equivalent to core CP6 plan + 2a (activity/scope efficiencies) in the waterfall

Headwinds and efficiency by theme

Theme	Area	Description	Net % change
Technology (5)	Efficiency (5a)	Automation of data collection processes to reduce need for train borne staff ; Replacement of data collection train fleet leading to reduced maintenance costs.	-4%
	Tailwind (5b)		
	Inefficiency (5c)		
	Headwind (5d)		
Commercial (8)	Efficiency (8a)		+2%
	Tailwind (8b)		
	Inefficiency (8c)		
	Headwind (8d)	The majority of AIS's £81m 3rd party support costs are with monopoly suppliers, whose contracts will be for renewal during CP6, therefore it is foreseen that this will lead to a cost increase	

5.4 Risk and uncertainty in the CP6 plan

This section provides an explanation of the how we have built up our overall plan and sets out our estimate of the degree of financial uncertainty within this plan.

Pre-efficient costs in our plan are based on current rates but include any additional scope needed to deliver the outputs in the plan. We have used initial estimates to develop our capital expenditure forecasts and CP5 exit rates for operating expenditure forecasts. Drivers of rate increases (headwinds), and cost reductions (efficiencies), where there is a reasonable expectation they will occur, have been identified separately from the core CP6 plan.

The combination of our core CP6 plan, headwinds and efficiencies is our submission and represents the most likely outcome for CP6. The content of our plans reflect the funding that we understand to be available in CP6. We consider this plan to be realistic and, therefore, deliverable in CP6.

Current costs are likely to include some risks that were not originally included in CP5 plans but that have materialised during the current control period. As a result of this approach, it is likely that some risk and uncertainty is already be included in our core CP6 plan, as we have not sought to remove the impact of these unplanned events from our cost estimates.

5.5 Uncertainty ranges for CP6

The information in the table below, presents our estimate of the overall range of uncertainty across our expenditure for CP6. We have also identified the main drivers of the uncertainty ranges. The information in this table is based on the detailed inputs provided in our OPEX ND renewals submissions. Headwinds and efficiencies are included in the spot estimates.

Area (S, O, M, R, Income)	Potential range (low – spot – high)			Summary of key drivers of the uncertainty range	
				Driver of range	% of range
Renewals	Low (-£2.8m)	Spot (£27.9m)	High (+£2.8m)	Costs are made up of various initiatives, each of which are in early stages of planning activity, so costs could vary from current estimates once plans are finalised.	100%
Support and operations	Low (-£24.4m)	Spot (£260m)	High (+£17.9m)	Uncertainty around significant scope increases in CP6	72%
				Uncertainty around level of headwinds experienced in CP6	15%
				Uncertainty around level of efficiencies achievable in CP6	13%
Total expenditure	Low (-£27.2m)	Spot (£288m)	High (+£20.7m)		

6.   Sign-off

- This document and accompanying templates are owned by the Director, Asset Information Services.
- Submission of this document indicates confirmation that:
- all appropriate level 1 assurance activities have been undertaken (see separate advice on definition of level 1 assurance);
- the Director, Asset Information Services is satisfied with the quality, currency and appropriateness of the content of this document as well as the cost, volume and activity projections to which it refers;
- the signatories are satisfied that the plan has been assessed as deliverable, subject to the assumptions articulated in Appendix B.

Authorised by:

David Waboso
Managing Director, Group Digital Railway

Simon Atterwell
Acting Director, AIS

Mike Reynolds
Finance Director (GDR)

Appendix A N/A

Appendix B Key assumptions

Ref no.	Topic (e.g. dependency, deliverability, climate etc.)	Assumption	Areas of spend impacted (e.g. all OPEX, single team, all spend etc.)	Is this a change of assumption for CP6?
1	Chargeable services	It is assumed that the costs for providing the PLPR, S&C dynamic inspection and Eddy Current services, currently off-charged in CP5, will be wholly borne by AIS in CP6	Recoveries to routes	Yes – these services are funded by routes in CP5
2	Capital projects	It is assumed that any capital projects that require new or enhanced services from AIS will have made appropriate OPEX provision in their function's SBP submission	All costs	N/A
3	Additional service volumes	Excluding those agreed service volume increases that are included in this SBP, it is assumed that OPEX costs associated with any increase in required volumes, quality and performance of AIS services above current levels will be borne by customers	All costs	N/A
4	IM Fleet Maintenance	Costs for the infrastructure condition monitoring fleet and associated systems assume a successful Route Services bid for CAPEX to deliver new trains; life extension of the current fleet will result in increased costs and risk of service degradation	NSC IM Fleet costs	N/A
5	Information Technology	It is assumed that any increase in costs for maintaining IT systems upon which AIS is dependent are borne by RSIT (i.e. support, mandatory upgrades, licences, etc.)	All costs	N/A
6	Devolution	It is assumed that there are no AIS services that will be devolved to the route businesses in the remainder of CP5 and in CP6.	All costs	N/A

Ref no.	Topic (e.g. dependency, deliverability, climate etc.)	Assumption	Areas of spend impacted (e.g. all OPEX, single team, all spend etc.)	Is this a change of assumption for CP6?
7	Devolution	It is assumed that if there is a requirement for AIS to provide bespoke customer-specific services under devolution the customer will bear any CAPEX and additional OPEX costs	All costs	N/A

Appendix C N/A

Appendix D Scenario planning

Part (1): Tactical scenario planning for CP5
Provide information on the impacts on CP5 of each of the following scenarios:

- Scenario 1: 20% increase in total remaining expenditure

Details and benefits of additional expenditure in CP5

Area of spend	Yr 4-5 outstanding spend (£m)	Potential investment increase (£m)	Comment on benefits
Accelerate resilience activity	£0m	£3m	All AIS systems covered by RS-IT support (either internal or through 3rd party), reducing impact of any system failure.

- Scenario 2: 20% decrease in total remaining expenditure

Details and impacts of reduced expenditure in CP5

Area of saving	Yr 4-5 outstanding spend (£m)	Maximum potential saving (£m)	Comment on impacts/issues
Reduce SLA's/Cut services	£70m	TBC	Any sustained reduction in AIS services would have significant impacts on both train performance (as temporary speed restrictions, or in extreme cases network closures, would need to be implemented) and safety (as asset inspections would need to be carried out manually by route based staff) and significantly increase the likelihood of non-compliances against standards.

Appendix E   N/A

Appendix F   N/A

Appendix G Glossary of term

Balanced scorecard
A performance management tool which is used by business to align activities to the vision and strategy of an organisation and monitor performance against strategic goals. The balanced scorecard considers four perspectives of our performance: financial performance, customer performance, capability performance and culture.

Capability
A capability is the power or ability to do something. It is used within our organisation in the following ways:

- Capability within a service – a capability is knowledge, skills, and experience which is created in anticipation of a need or in response to a clear customer demand, and creates a valued business outcome. An example of this is a consultancy capability or an advisory capability;
- Capability within our organisation – within our operating model we describe four key capabilities that our business needs. These are the four key "things" that our business must have the ability to do e.g. account management;
- Capability delivered by ORBIS – some ORBIS projects will deliver a capability into Asset Information Services. This means ORBIS builds an ability for Asset Information Services to do something e.g. Asset Data Store provides an ability to store data and report on data more effectively.

Capital Expenditure (CAPEX)
This is money spent by a business or organisation on acquiring or maintaining fixed assets, such as land, buildings, and equipment.

Centre of Excellence
A centre of excellence is a team that provides thought leadership and best practice for a focus area. Our Supply Chain organisation is based on three centres of excellence.

Enhanced Vision
This moves the 'Vision' beyond a simple outcome statement to a more comprehensive picture of the enabling factors with which to achieve the Vision. This includes key processes and intangible assets such as people and technology. The 'Enhanced Vision' bridges vision and strategy.

Services
This is the name for a product, capability or solution that we provide to customers.

Operational Expenditure (OPEX)
This refers to money spent on the ongoing costs of running a business or organisation, such as wages, contracts, consumable equipment and staff costs etc.

Line Managers Self-Assessment (LMSA)

Each year Line Managers within specified parts of the company are required to complete an annual Self-Assurance Questionnaire to confirm compliance with certain responsibilities and requirements outlined in Network Rail's Health & Safety Management System (H&SMS), formal company and industry standards, procedures and safety legislation.

Operating model

An operating model describes how an organisation works across the following areas:

- Performance management;
- Processes;
- People and skills;
- Information and tools; and
- Values and behaviours.

Strategic Objective

A strategic Objective is one that is broadly defined that an organisation must achieve to make its strategy succeed.

Value proposition

A value proposition is a promise of value to be delivered and acknowledged and a belief from the customer that value will be delivered and experienced.

Value Disciplines

There are three generic value disciplines that companies can adhere to. They are Operational Excellence, Product Leadership and Customer Intimacy. In this model a company will strive to reach the market threshold on two value disciplines and vigorously and consistently pursue one discipline as their primary value principle. Asset Information Services has selected Operational Excellence as its value discipline.

Group Assurance Letter Process

GALP (Group Assurance Letter Process) is a self-assessed compliance by Network Rail Management against specific control requirements and policies. It aligns with the Department of Transport (DfT) requirements where each business and functional leader (Level 2) must complete a Control Questionnaire and a Management Assurance Letter for their area of accountability.