Digitalisation Strategy Action Plan

December 2023

Introduction

The Digitalisation Strategy Action Plan (DSAP) is a document that is due to be updated every 6 months as per our Ofgem obligations. The DSAP represents progress against our Digitalisation Strategy.

For our December 2023 update, we have taken on board feedback to bring more transparency and detail to our plan so we are moving away from the previous format and presenting a new comprehensive look and feel to our DSAP. All previous actions are referenced in this document so that history is not lost.

In February 2023 National Gas became independent of National Grid, bringing freedom to focus solely on the needs of National Gas customers and stakeholders. Our systems are being separated from National Grid and we are taking advantage of synergies between this and our funded plan to accelerate our digitalisation action plan. Further, independence brings the ability to right-size our systems, reduce technical debt, focus on standards that support digitalisation (such as Dublin Core) and make strategic platform decisions that improve agility. Separation also comes with cost challenges through reduction of scale and we are working to minimise these.

The future energy system will be more dynamic than ever before, and we recognise that digitalisation of our processes and exploitation of our data will be key to making the right decisions and ensuring that we continue to offer the best service to our customers and stakeholders. Therefore is it important that through the content of DSAP we highlight the progress we are making in all relevant areas; putting actions into words to realise the Digitalisation Strategy.
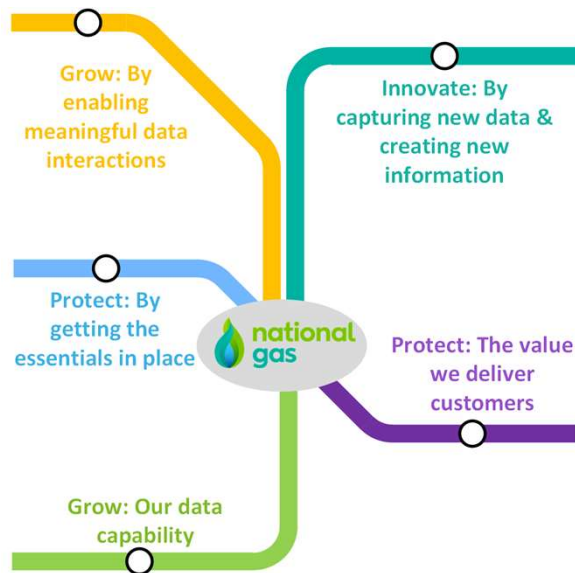
Our Digitalisation Strategy Action Plan

We have structured this document into the following sections:

A. Summary of how we are achieving Ofgem Data Best Practice Guidance through our revised Data Strategy and DSAP actions.

B. Overview of what we are delivering in IT in RIIO-GT2 with reference to DSAP deliverables and next steps. The projects are categorised into 5 value streams and for FY24-26 we have added an infrastructure category which manages Enterprise infrastructure and application separation activities. There are two parts:

    I.   Projects that we have delivered in FY22-23
    II.   Investment Plans that we have in place for FY24-26

C. Spotlight on stakeholder engagement on New Information Provision investment to showcase our stakeholder's views and demonstrate how our Product and Services are validated by stakeholders.

Section A – Progress made against Ofgem Data Best Practice Guidance

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We have fundamentally revised our data strategy to align to Ofgem Data Best Practice Guidance

Our Digitalisation Strategy has multiple initiatives focussed on data as well as a specific stream for Data Driven Asset Management. Over the course of this T2 PCD, we felt that we required additional focus and emphasis on data for a more holistic approach. Our Data Strategy therefore underpins ALL of our strategic delivery and links up data products and outputs ensuring continuity, consistency and economies of scale as we implement data capabilities across multiple programs.

The themes from the Data Strategy are cross-cutting and lend themselves to several of our key initiatives. Our Data Strategy also covers additional more global requirements and that we are embedding the Ofgem Data Best Practice Guidance and Dublin Core standards as we implement new capabilities.

The following actions: DSAP 014, DSAP 019, DSAP 020, DSAP 021, are now incorporated into our BAU and individual projects ensuring that Ofgem Data Best Practice Guidance, engagement with the industry, and involvement with Digital Spine are all covered.

Section B – Overview of RIIO-GT2 IT delivery

I. Projects that we have delivered in FY22-23
II. Investment plans that we have in place for FY24-26

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What we are delivering in RIIO-GT2 – an overview

FY22-23 Projects Delivered

We have successfully delivered the first two years of the RIIO-GT2 Regulatory period. Our IT projects are delivered using SAFe Agile methods and grouped into value streams that maximise efficiency for both IT Delivery and the business users of our core systems.

Market & Customer Insights
Deliver CRM to create clear customer processes and provide excellent understanding of interaction with our customers and their needs.
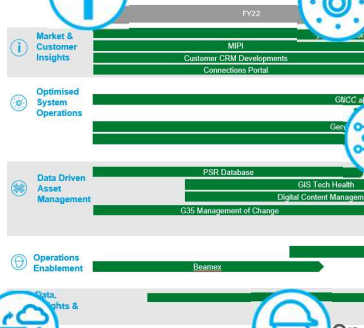
Optimised System Operations
Utilise smart tooling within System Operations and the Gas Control Suite to help understand the drivers and behaviours of customers and impact of actions and decisions.

Data Driven Asset Management
Collect more data on our assets than ever before and use this to systemise the build, maintenance and operation of assets.

Data Insights & AI
The first building block of many of the RIIO-GT2 investments, create and develop the Gas data lake to provide insights and modelling capability across Gas, enabling AI and enhanced decision making.

Operations Enablement
Empowering our field force to make the right decisions and have everything they need at their fingertips through the latest technology.

Finance
Utilise the latest technology to further improve the customer experience whilst reducing its cost and removing traditional transactional processes.

End User
Maintain performance levels across key end user services, while also looking at emerging technologies to identify opportunities for additional value.

Infrastructure
Maintain a secure and safe evergreen CNI network and create a network architecture that supports the rapid adoption of cloud base services and a mobile workforce.
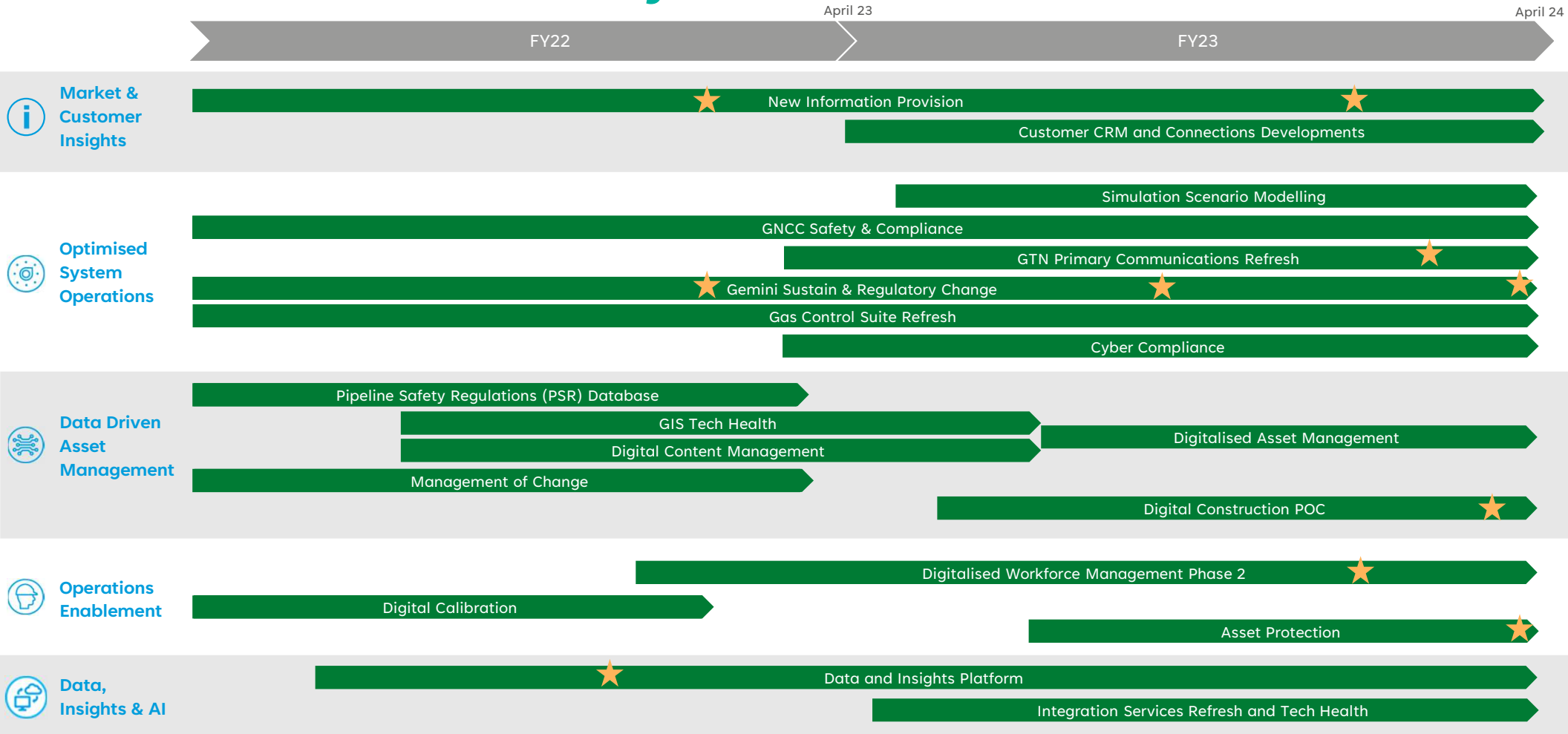
HR and Shared Services
Improvements to the service applications and processes that support National Gas and it's employees to create an improved and engaging experience.
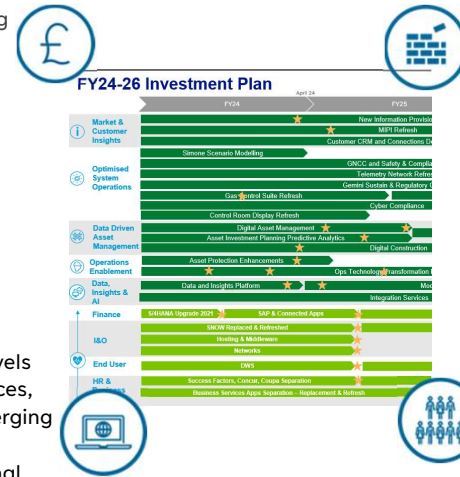
FY24-26 Investment Plan
In addition to the existing value streams, we are now in the process of separating our systems and processes from National Grid. This brings a lot of change and new responsibility in managing our own Enterprise suite of applications. We have created a new set of value streams to successfully deliver Separation and RIIO-GT2 commitments for these applications.

Section B Part I – Projects delivered in FY22-23

April 23   April 24

FY22	FY23

Market & Customer Insights
- New Information Provision
- Customer CRM and Connections Developments

Optimised System Operations
- Simulation Scenario Modelling
- GNCC Safety & Compliance
- GTN Primary Communications Refresh
- Gemini Sustain & Regulatory Change
- Gas Control Suite Refresh
- Cyber Compliance

Data Driven Asset Management
- Pipeline Safety Regulations (PSR) Database
- GIS Tech Health
- Digital Content Management
- Digitalised Asset Management
- Management of Change
- Digital Construction POC

Operations Enablement
- Digitalised Workforce Management Phase 2
- Digital Calibration
- Asset Protection

Data, Insights & AI
- Data and Insights Platform
- Integration Services Refresh and Tech Health

National Gas Transmission | DSAP December 2023

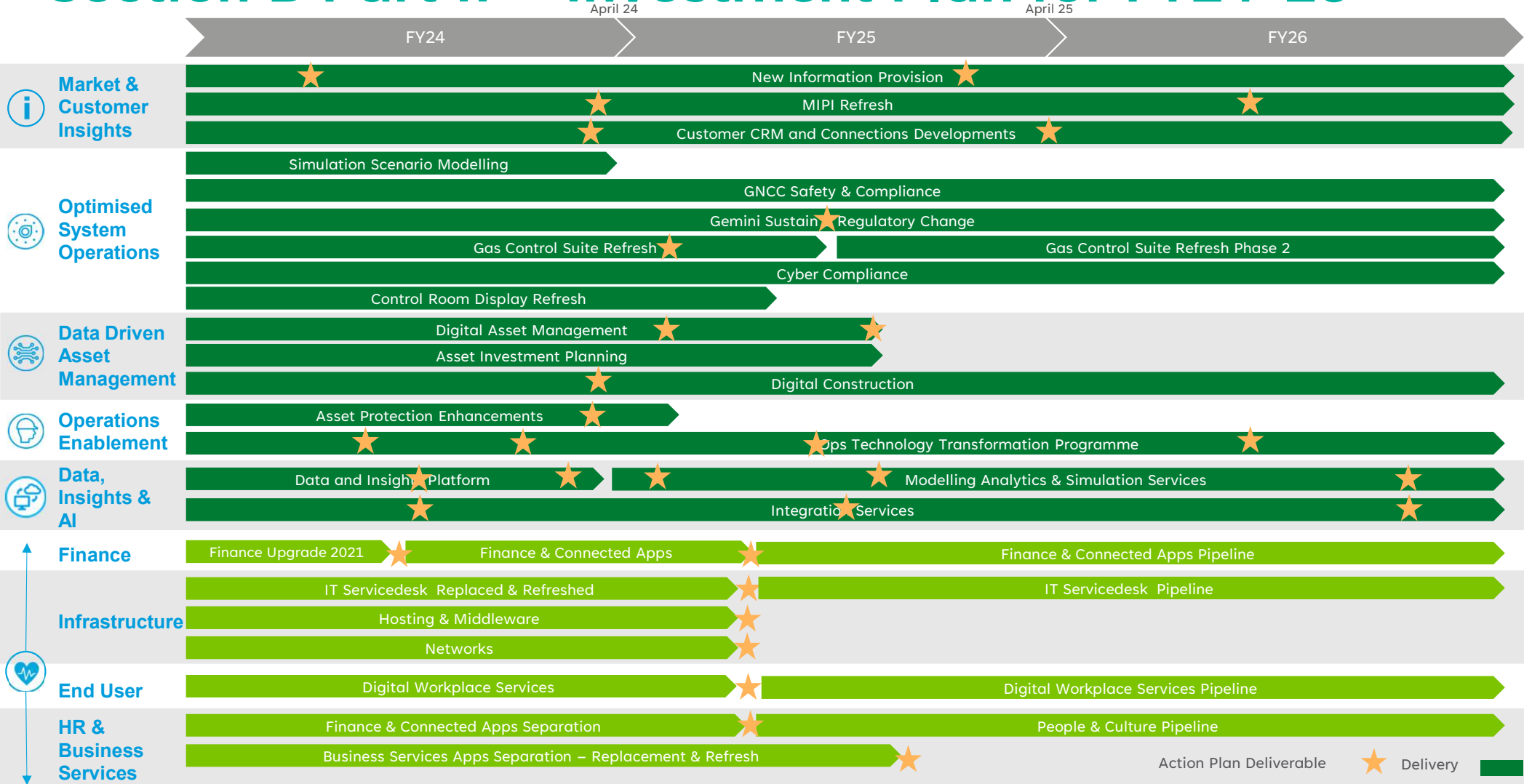Action Plan Deliverable ⭐   Delivery ▬

Summary of Projects delivered in FY22-23

We have recognised the importance of data and digitalisation, and over the last two years have invested in meeting the highest priority needs of our stakeholders and laying strong foundations for future work. We continue to participate and deliver outputs within the Digital Data Strategy Group, collaborating with other Gas/Electricity Networks, and internally aligning to Data Best Practice Guidance guidelines. Our projects in the first two years of RIIO-GT2 support the DSAP, the key ones are summarised below.

- **New Information Provision** – deliver data to the industry through transformation of our data provision platform. This includes National Gas data portal landing page, new gas system status view, improvements to navigation and easier access to data triage requests.
- **Gemini Sustain and Regulatory Changes** – New interfaces and screens being developed for Gemini through Sustain Plus will help to reduce the barriers to entry for new disruptive market players, helping to refresh the competitive tension within the gas market as wholesale prices reduce from their peaks over the last twelve months.
- **Digital Asset Management** – A programme to refresh our Asset Management Systems has been mobilised during this period and is on track to deliver at the start of FY24.
- **Digital Construction POC** – completion of the common data environment proof of concept to test the feasibility and capability of implementing a construction cloud collaboration system to improve the delivery of our capital projects and to align our processes to international (ISO) Business Information Modelling standards.
- **Digital Work Management Phase 2** - successfully delivered the first phase of enhancements to develop our Workforce Management systems
- **Asset Protection** - migrate some of our Asset Protection processes to a new platform to improve the information we gather about 3rd parties and the process through which we gather it, ultimately supporting our objective to become more proactive in identifying and managing risks.
- **Data and Insights Platform** - We have delivered the initial phase of our Data and Insights platform, a platform that will enable us to deliver a comprehensive view of NGT's data across the organisation and to external stakeholders.

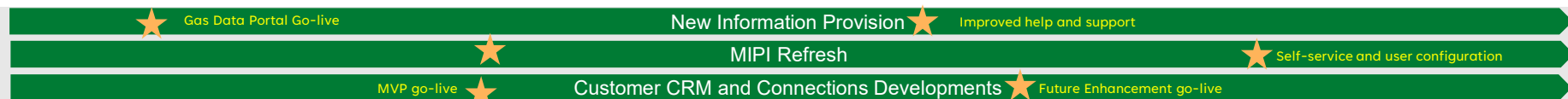# Section B Part II – Investment Plan for FY24-26

	FY24	April 24	FY25	April 25	FY26

Market & Customer Insights
- New Information Provision
- MIPI Refresh
- Customer CRM and Connections Developments

Optimised System Operations
- Simulation Scenario Modelling
- GNCC Safety & Compliance
- Gemini Sustain Regulatory Change
- Gas Control Suite Refresh
- Gas Control Suite Refresh Phase 2
- Cyber Compliance
- Control Room Display Refresh

Data Driven Asset Management
- Digital Asset Management
- Asset Investment Planning
- Digital Construction

Operations Enablement
- Asset Protection Enhancements
- Ops Technology Transformation Programme

Data, Insights & AI
- Data and Insight Platform
- Modelling Analytics & Simulation Services
- Integration Services

Finance
- Finance Upgrade 2021
- Finance & Connected Apps
- Finance & Connected Apps Pipeline

Infrastructure
- IT Servicedesk Replaced & Refreshed
- IT Servicedesk Pipeline
- Hosting & Middleware
- Networks

End User
- Digital Workplace Services
- Digital Workplace Services Pipeline

HR & Business Services
- Finance & Connected Apps Separation
- People & Culture Pipeline
- Business Services Apps Separation – Replacement & Refresh

Action Plan Deliverable ⭐ Delivery ▬

Market & Customer Insights – Investment Plan
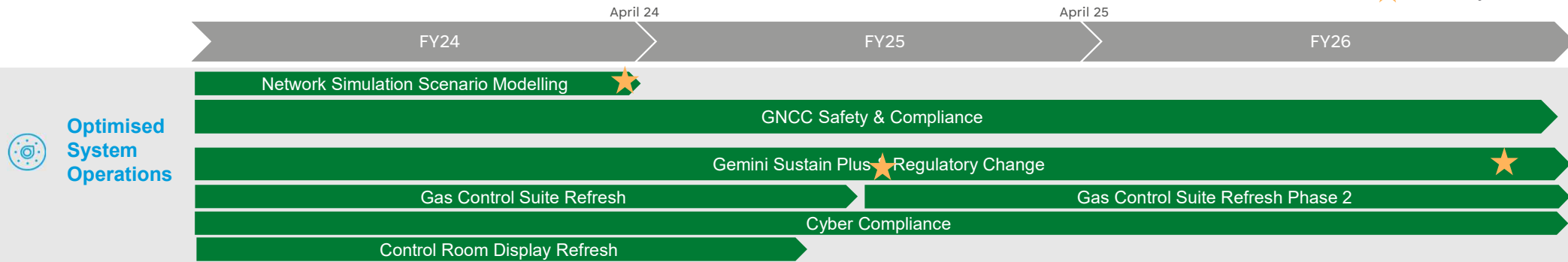
Action Plan Deliverable ⭐ Delivery ▬

| FY24 | April 24 | FY25 | April 25 | FY26 |

Market & Customer Insights

⭐ Gas Data Portal Go-live | New Information Provision ⭐ Improved help and support

⭐ MIPI Refresh | ⭐ Self-service and user configuration

⭐ MVP go-live | Customer CRM and Connections Developments ⭐ Future Enhancement go-live

Action No.	Project	Description	Action Outcome to date	Next Step
DSAP 026	MIPI Refresh	Improve the discoverability and interoperability of our Operational Data for customers by: • providing a modern RESTful API • data catalogue and metadata available via the API • Enabling customers to configure and personalise their view of our data • Enhancing our help and support for data	API solution design complete, development environments have been set-up and logging and error handling mechanism have been implemented	Build, test and deploy the API functionality and associated Developer Portal documentation Implement a means of identifying customers that supports Open Data principles and add customization features Provide a richer help and self-service support experience
DSAP 027	New Information Provision	Continue to provide richer data and information to customers by: • Improving how we manage data triage requests • Improving data quality • Create new metrics to measure successful delivery	We have continued to deliver enhancements to the Gas Data Portal through periodic releases and enhance the experience. This includes action DSAP 010 and DSAP 013.	Enhance our engagement with customers to identity their needs Initiate a Data quality review and commence activities to migrate data to new Data and Insights platform
DSAP 028	Customer CRM and Connections Development	Improve the customer journey, satisfaction and engagement for Customers & stakeholders by: • Refresh of automated connections process • Enhanced infrastructure • Single solution for customer & stakeholder data • Improving query management processes	Data – Implementation of new data structure, followed by data cleansing activities in CRM. Digitalisation – Reduction in offline communications and processes relating to Customers & Stakeholders.	Launch of Gas Customer Hub to replace Connections Portal

Optimised System Operations – Investment Plan

Action Plan Deliverable ⭐   Delivery ▬

	FY24	April 24	FY25	April 25	FY26

Optimised System Operations

- Network Simulation Scenario Modelling ⭐
- GNCC Safety & Compliance
- Gemini Sustain Plus ⭐ Regulatory Change ⭐
- Gas Control Suite Refresh | Gas Control Suite Refresh Phase 2
- Cyber Compliance
- Control Room Display Refresh

Action No.	Project	Description	Action Outcome to date	Next Step
DSAP 29	Network Simulation Scenario Modelling	Create new infrastructure for the latest versions of network models	Meet regulatory efficiency drivers and availability of historic data to inform decisions.	Assess whether automatic feed between live and historic models can be put in place
DSAP 30	Gemini Sustain+	Move Gemini and Gemini Exit to single instance of Gemini based on cloud hosted platform and microservices. Includes new user interface for industry users and improved process and system capabilities Reduced cost of ownership and development	Design completed. Currently in Build and Test.	Prepare for System Integration Testing, E2E testing and Market Trials
			On going engagement with industry in preparation for switch over	Prepare for Go-live
			Developing new Training Suite	Further develop training and communication plan
DSAP 31	Gemini Regulatory Change	Support all modifications to UNC that impact the operation of the Gemini system Provide changes to Gemini to maintain and enhance the solution	UNC846 – Movement of capacity from Easington to Rough Storage (Winter 2023 changes))	Awaiting Ofgem decision on UNC823 Short Haul changes
			UNC0799 – H100 Fife SGN 100% hydrogen trials	
			Various maintenance and enhancement activities	

Data Driven Asset Management – Investment Plan
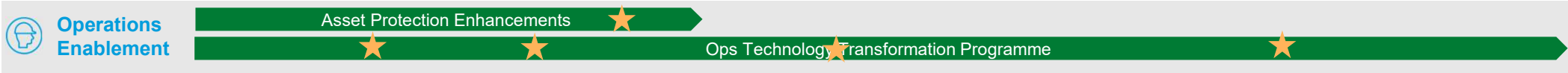
Action Plan Deliverable ⭐ Delivery ▬

| | | FY24 | | | April 24 | FY25 | | | April 25 | FY26 |

Data Driven Asset Management

- Digital Asset Management ⭐ ⭐
- Asset Investment Planning
- Digital Construction ⭐

Action No.	Project	Description	Action Outcome to date	Next Step
DSAP 024 & DSAP 025	Digital Asset Management	We are replacing our asset management solution, this includes Asset Management, Geospatial Information, and Content Management.	Standardisation of operational planning and work deployment processes. Synergising estate by combining systems, enriching data and information available. Refined reporting capability and new targeted data structures	Production roll-out of all three refreshed systems to users.
DSAP 032	Asset Investment Planning Tech Health and Enhancements	Implementation of new functionality to further enhance long term Asset Investment Planning and support creation robust proactive plans. Ongoing tech health investment to maintain the platform	Enriched functionality to further enhance long term Asset Investment Planning delivered	Ongoing tech health platform upgrades
DSAP 033	Digital Construction (Enhance Asset Design)	Implementation, utilisation of BIM-CDE capability and applied new standards on construction projects which are delivered by external contractors and are tendered after the first two years of RIIO T2	Standardised data policies for capital investment programs. Standardised ways of working. Proof of Concept assessment completed.	Scale onboarding of capital investment projects beyond pilot. Deploy new data policies into projects. Create new digital processes to drive efficiency.

Operations Enablement – Investment Plan

Action Plan Deliverable ⭐   Delivery ▬

| | April 24 | | April 25 | |
| FY24 | | FY25 | | FY26 |

Operations Enablement

Asset Protection Enhancements ⭐

⭐ ⭐ Ops Technology ⭐ Transformation Programme ⭐

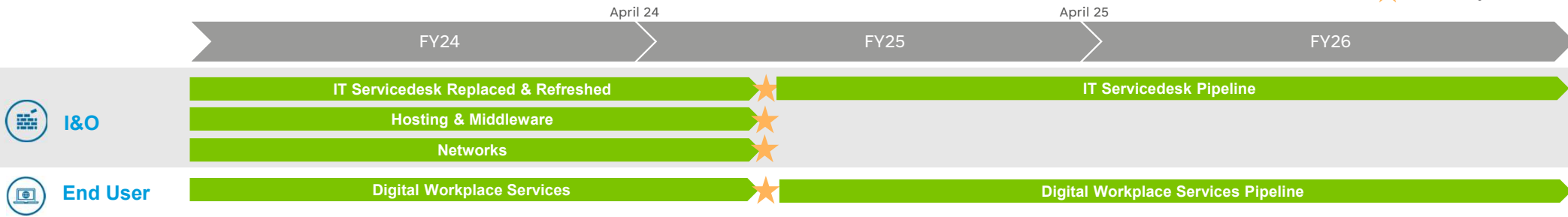| Action No.	Project	Description	Action Outcome to date	Next Step
DSAP 034	Asset Protection Enhancements	Digitalisation of our Asset Protection processes for sending 11k letters to landowners, through moving data and functionality to a CRM platform.	FY24 – Launch of automated letter generation process, with data cleansing activities and data standardisation.	FY25 – Development and launch of additional asset protection automated process, including query management.
DSAP 035	Ops Technology Transformation Programme	We will deliver improvements and extend digitalisation for our field force teams, including device refresh, connectivity and enhanced maintenance planning.	FY24 – 'on the go' connectivity proof of concept to provide the field force better internet connection for capturing data in real time whilst completing work orders.	FY25 – A network wide roll out of the selected 'on the go' connectivity option.
			FY24 – Selected a Competency Management system to ensure better skill management and provide better data reporting.	FY25 - Enhance integration between applications improving data flow between systems
			FY24 – Commenced development of a Time Recording capability from work orders resulting in an improved time data reporting.	FY25 - Manage risk and authorisations with an integrated electronic permit to work system, improving safety
			FY24 – Commenced development of an Ad-Hoc Work Order capability for Technicians which will increase the volume of work associated to a work order.	

Data Insights & AI – Investment Plan

Action Plan Deliverable ⭐ Delivery ▮

	FY24		FY25		FY26
		April 24		April 25	

Data, Insights & AI

Data and Insights Platform ⭐ ⭐ ⭐ Modelling Analytics & Simulation Services ⭐

⭐ Integration Services ⭐ ⭐

Action No.	Project	Description	Action Outcome to date	Next Step
DSAP 017 DSAP 023	Data and Insights Platform	We are building a data and insights platform as a central data store for data science, modelling, analytics and reporting.	Internal company wide data strategy aligned to D&I key deliverables, to improve data governance, quality and a roadmap from now into RIIO-3.	Migrate existing Data Science use cases onto D&I platform. Enhance reporting and visualisation on D&I
DSAP 012	Modelling Analytics and Simulation Services	We will continue to develop the D&I platform to support delivery of data science use cases which will improve how we run and forecast the network	FY24 – Develop delivery plan for data quality profiling exercise FY24 – develop a delivery plan for GT and GSO data science use cases FY25 – first machine learning models into production FY25 – following review, implement Dublin Core meta data standard on priority systems	Data quality profiling on priority GT and GSO systems Scaling up of Data Science team to deliver data science models.
DSAP 036	Integration Services	We are migrating to a new National Gas target architecture to simplify IT landscape, network, data transfer systems and interfaces.	FY24 – Productionised the different types of integration platforms ready to integrate data and systems, automating workflows and processes, and creating enhanced digital experiences.	FY25 – onboard all systems and application applicable as part of business separation programme FY26 – onboard all applicable RIIO GT2 applications to the National Gas target architecture.

Enterprise Infrastructure
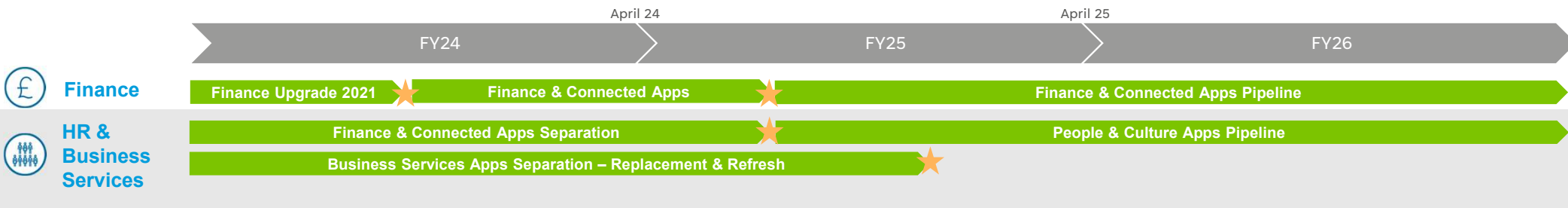
Action Plan Deliverable ⭐ Delivery ▮

	FY24		April 24	FY25	April 25	FY26

I&O
- IT Servicedesk Replaced & Refreshed ⭐ — IT Servicedesk Pipeline
- Hosting & Middleware ⭐
- Networks ⭐

End User
- Digital Workplace Services ⭐ — Digital Workplace Services Pipeline

Action No.	Project	Description	Action Outcome to date	Next Step
DSAP 037	IT Servicedesk	Provide a workflow platform to support the business.	FY24 – Core Platform go live	Employee centre portal go-live
			FY24 – ITSM and Sec-ops launch	IDAM process enablement
DSAP 038	Hosting Platform	Deliver a strategic platform for the hosting of applications as part of our cloud-first strategy.	FY24 – Hosting Platform Landing Zone, production ready	Complete application migration
DSAP 039	Digital Workplace Services (DWS)	Provide a modernised and updated DWS environment	FY24 – Replace End Of Life end user devices	Continue refresh devices as they reach end of live
			FY24 – Onboarded a new service desk partner	Deliver updates and patches to our 365 productivity suite

Enterprise Apps

Action Plan Deliverable ⭐ Delivery ▬

		FY24	FY25	FY26
			April 24	April 25

£ Finance

- Finance Upgrade 2021 ⭐ — Finance & Connected Apps ⭐ — Finance & Connected Apps Pipeline

HR & Business Services

- Finance & Connected Apps Separation ⭐ — People & Culture Apps Pipeline
- Business Services Apps Separation – Replacement & Refresh ⭐

Action No.	Project	Description	Action Outcome to date	Next Step
DSAP 040	Finance & Connected Apps Upgrade	Technical upgrade of applications	Upgrade completed July 2023	N/A
DSAP 041	Finance & Connected Apps	Refreshed Gas instance of Finance applications and connected applications	FY24 – Refreshed instance go live	Prioritise and deliver enhancement opportunities
DSAP 042	Enterprise Apps	Refreshed Gas instance of Enterprise Apps for Payroll, People & Culture & Purchasing	FY24 – Refreshed instance go live FY24 – Outsourced payroll provider go live	Prioritise and deliver enhancement opportunities Integration with new Digital Learning platforms
DSAP 043	Business Services Apps Separation	Refreshed Gas instance(s) of Business Services applications	FY24 – Refreshed instance(s) go live	Prioritise and deliver enhancement opportunities

Section C - Spotlight on stakeholder engagement

New Information Provision

New Information Provision – Stakeholder engagement

As an example of our Stakeholder engagement strategy in action we have included this spotlight on the New Information Provision investment.

In July 2023 we delivered the enhanced Gas Data Portal and this was designed in response to feedback from many stakeholders across different groups which we categorise into the four Personas shown in the graphic on the right-hand side.

By engaging these groups, we were able to take feedback from a wide range of stakeholders and use this to shape the look and feel and useability of the new Gas Data Portal.

This is very much an ongoing strategy throughout the life of this project to continue to engage with users and base our improvements on this feedback. The following explains what we have done and what is included in our future roadmap in response to the feedback we have received and continue to gather.

Enquiring Minds

Energy Insiders

Network and Asset Decision Makers

Policy Influencers

Home | National Gas Transmission Data Portal:
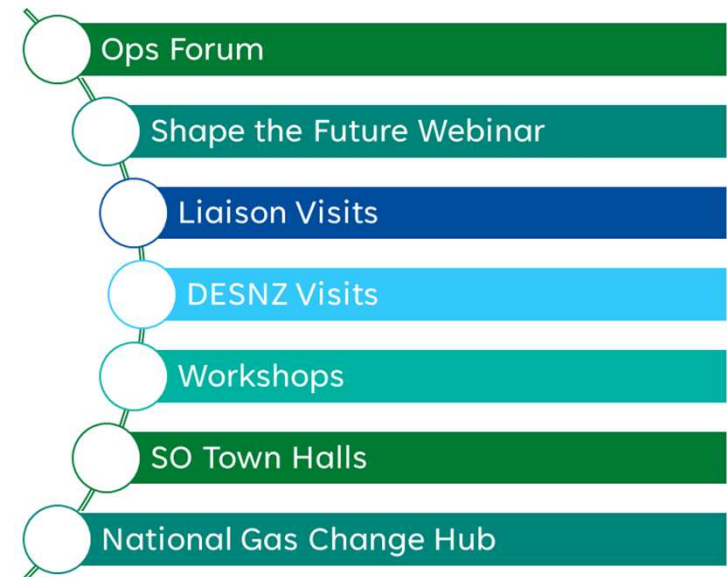
https://data.nationalgas.com/

Stakeholder / Customer Engagement

- **Gas Data Portal Go live –** We initiated some early engagement with users and gathered some regular themes of pain points and feedback. Our summary common themes and what features we delivered:

Feedback Theme	Features Delivered
Dated interface and look	Enhanced and redesigned user interface
Usability of Data Item Explorer	Redesigned how Data Item Explorer functions
Unable to find reports	Improved design of report layouts
Limited help and support	Dedicated Technical Design section for Data Portal Help
Difficult to link to MS Excel	Improved Power Query MS Excel Integration

- **User Research –** We engaged with a total of 56 users, across multiple forums such as workshops, rapid testing, surveys and interviews. The Users were spread across varying levels of knowledge of the energy sector, including enquiring minds. We collected a range of feedback based on the usability of our user Interface, how data is discoverable and site design.

- **Gas Data Portal User Community** - We are enhancing our Data User Community for the Gas Data Portal to enable richer feedback, early adopters and targeted communications and engagement.

- We continue to engage through the different channels - the key ones listed in the graphic on the right hand side. We are also now able to utilise enhanced analytics to target the users of our data for feedback. This is an area which we are developing further as the dataset grows since launch.

Ops Forum
Shape the Future Webinar
Liaison Visits
DESNZ Visits
Workshops
SO Town Halls
National Gas Change Hub

Gas Data Portal Community Sign up

https://forms.office.com/r/w8szn33rXF

Roadmap – MIPI & New Information:

Looking ahead, our key action plan deliverables are all aligned to stakeholder feedback and the Data Best Practice Guidance:

- Delivering Modern APIs – Specific engagements with API users to gather feedback to form our plans and test with stakeholders.

- Self Service & User Configuration – A customised service option for the future.

- New Instant Messaging Capability – Be more transparent and have a live/automated chat feature. This is in plan to be developed.

- Data Discovery & Interoperability – Common terminology, Dublin Core Metadata, "search everywhere" (also see API and Instant messaging above)

- Data Quality – Development of our Data & Insights platform capability will enable improved data quality.

- Continuous Incremental improvements and batched requirement releases based on feedback

This relates back to DSAP 015, DSAP 016 & DSAP 018.

Appendix

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Previous published Action Plan

To provide traceability and transparency, here is the link to the previous published action plan in June 2023. https://www.nationalgas.com/document/143406/download

All open actions from the previous published DSAP have been referenced and addressed in this pack.