

Public

NESO Technology Advisory Council

TAC-19 6th June 2025

Meeting pack

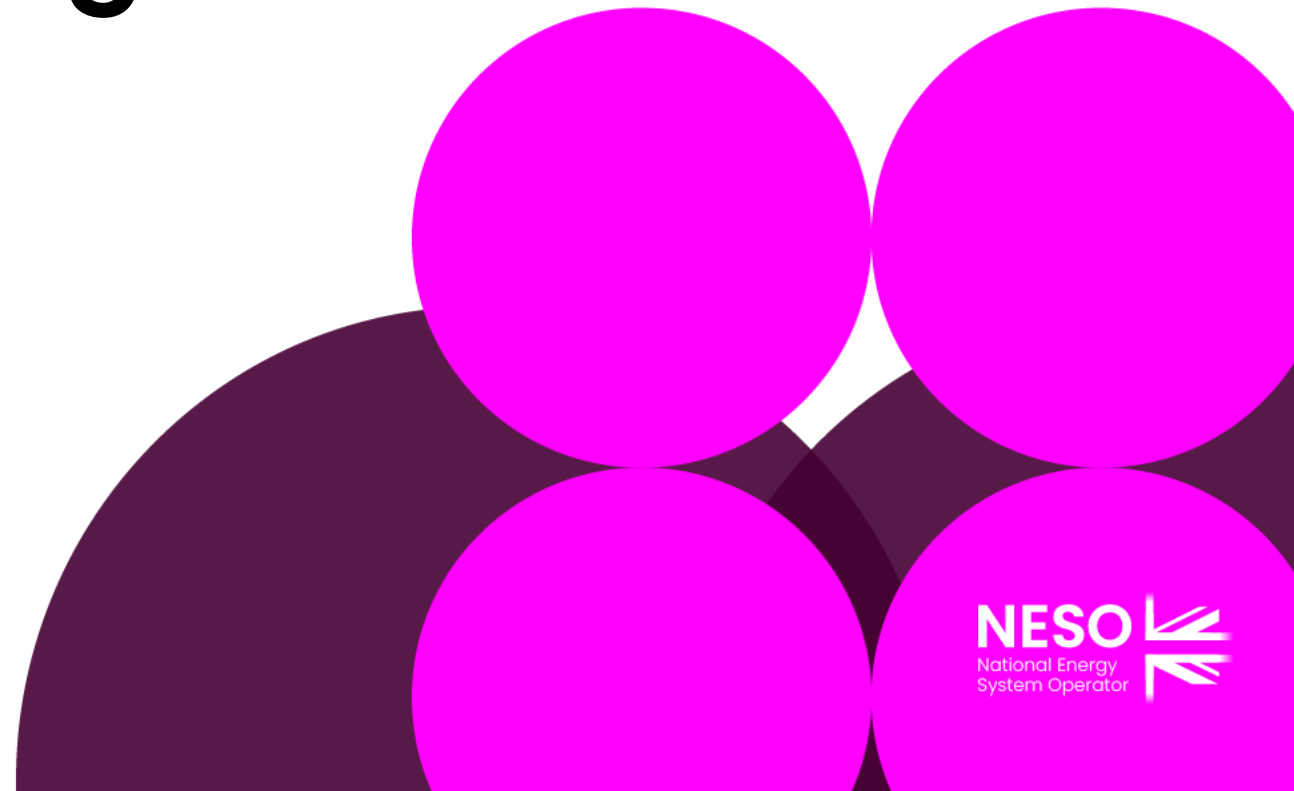
TAC-19 agenda – 6th June 2025

| Item | Start | Finish | Time | Item | Presenter | Notes |
|------|-------|--------|------|--|-----------------|---|
| 1 | 9:00 | 09:05 | 5 | Welcome & Apologies | Eric Brown | |
| 2 | 09:05 | 09:10 | 5 | Minutes of last meeting and matters arising | Eric Brown | |
| 3 | 09:10 | 09:20 | 10 | Feedback from the last meeting | Cameron Shade | |
| 4 | 9:20 | 9:35 | 15 | TAC membership and TOR | Eric Brown | |
| 5 | 9:35 | 10:15 | 40 | Digital Strategy | Joseph Stepney | |
| 6 | 10:15 | 10:55 | 40 | AI operating model and roadmap | Mo Al-Shakarchi | |
| | 10:55 | 11:10 | 15 | BREAK | | |
| 7 | 11:10 | 11:50 | 40 | Clean Power 2030 Tracker | Daniel Delgado | |
| 8 | 11:50 | 12:00 | 10 | Open Balancing Platform Update | Mayank Jha | |
| 9 | 12:00 | 12:10 | 10 | Subgroups update | Cameron Shade | |
| 10 | 12:10 | 12:20 | 10 | Next meeting | Eric Brown | Next meeting: Friday 5th September 2025 |
| 11 | 12:20 | 12:30 | 10 | AOB | Eric Brown | |

Welcome and apologies

Item 1

Eric Brown



Minutes of last meeting and matters arising

Item 2

Eric Brown

Minutes of last meeting and matters arising

- Minutes of TAC-18 have been published on the NESO website.
- The material from the meeting has also been published.
- This section will be used to discuss any matters arising.

Actions

| ID | Action Description | Owner |
|-----|--|----------------|
| A02 | Investigate whether teams can be used as an offline communication method with TAC members. | JS |
| A06 | Work with SP and FD to organise a session with another sector. | Chair |
| A11 | Draft 2 pages on what the ESO would like to discuss with Telecoms Organisation. | SR / JS / CS |
| A13 | Respond with any feedback on the Flexibility files distributed with the TAC-16 minutes. | All |
| A15 | Feedback on the AI implementation on Digital Code Management (DCM) on the NESO website. | All |
| A16 | Discuss updates to the TOR. | SR / Chair |
| A17 | Come back to TAC with details on the Engineering Advisory Council. | SR |
| A18 | Share any views on the TOR or membership of the TAC | All |
| A19 | Feedback on the Sector Digitalisation Plan | All |
| A20 | Continue the conversation on skip rates outside of the TAC meeting. | BL / SR |
| A21 | Review Control Room of the future sub group. | JS |
| A22 | Confirm location for September meeting. | CD |
| A23 | Share suggestions for future agenda items. | All |
| A24 | Share expected date for delivery of the LCP Delta Phase 3 work on calculating the cost of skip rates. | BL |

Feedback from the last meeting

Item 3

Cameron Shade

Feedback from the last meeting

Data Sharing Infrastructure

- Suggestions early adopters leave others behind making it hard to win hearts and minds.
- TAC recognised DSI does not address the entire problem.

Action Taken Since

- Industry show and tell hosted with 240+ attendees joining live. Recording and slides now available on website. Early adopter engagement and onboarding planned as part of MVP.
- Other initiatives are in flight to help address the wider issues such as the Sector Digitalisation Plan.

Data Programme

- TAC were pleased with the plans and praised initiatives such as the coding café.
- TAC suggested a feature store to share data packaged into something useful

Action Taken Since

- Data Programme continues at pace with focus around bringing data under governance for better transparency and trustability as well as and setting up data controls.
- Data and Analytics strategy work has kicked off which will address need for packaged data products to meet NESO and industry objectives.

Sector Digitalisation Plan

- Automation is key to getting consumers to participate in flexibility.
- For flexibility to be useful it needs to be concentrated in certain areas rather than spread around.

Action Taken Since

- NESO are undertaking additional stakeholder engagement activities (workshops, 12ls, interviews, etc) to further develop and test the sector digitalisation plan, and take onboard these and other comments received on the first draft.

Open Balancing Platform

- TAC emphasized the importance of the work to improve dispatch efficiency.
- TAC had more questions based on recent transparency on skip rates
- Actions were taken to discuss further offline

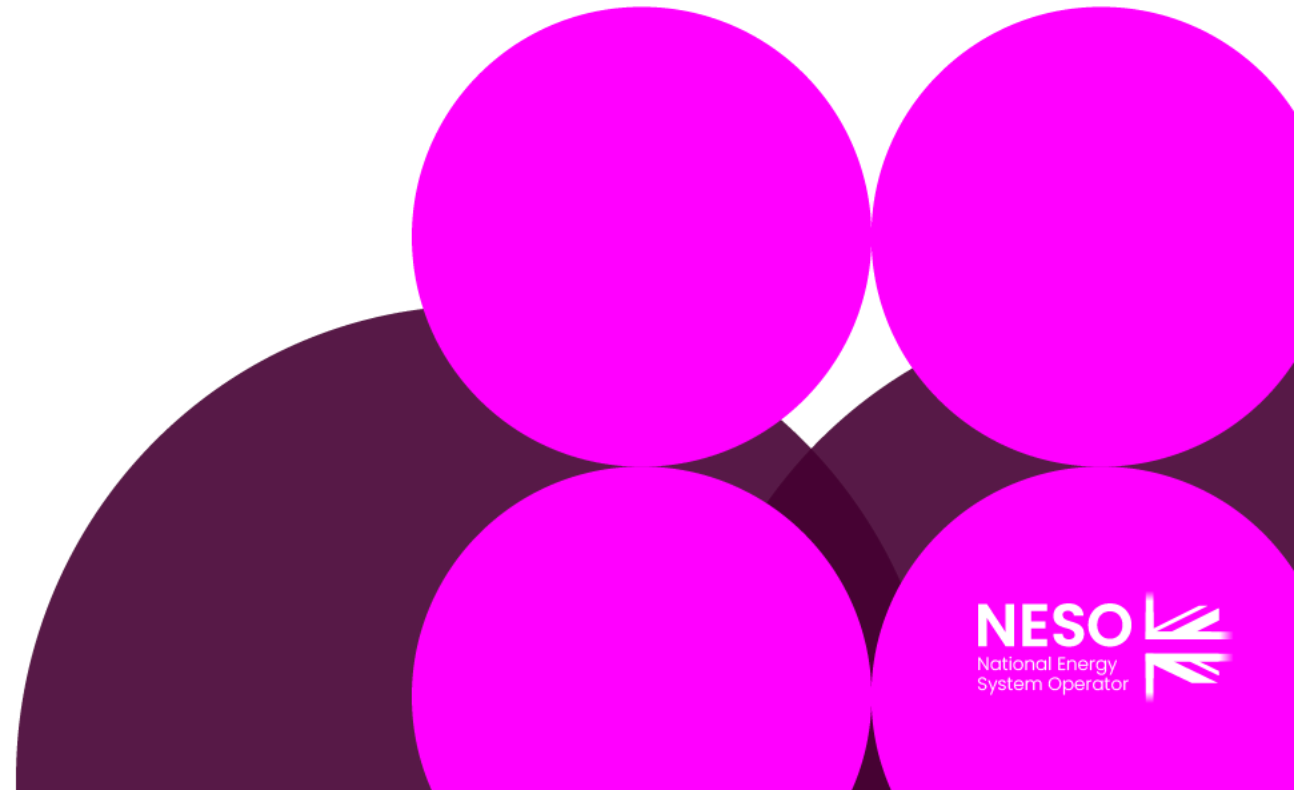
Action Taken Since

- NESO emailed TAC with contact details and a skip rate event on May 1st for further details on LCP Delta Phase 3.

TAC membership and TOR

Item 4

Eric Brown



Digital Strategy Action Plan (DSAP)

Item 5

Joseph Stepney

Topics to discuss...

- DSAP Summary Changes
- June 2025 update in detail
- Digital Strategy Roadmap

DSAP – June 2025, Summary changes

- The DSAP June 2025 submission will shortly be updated and whilst only required by Ofgem to reflect updates to Action Plans, we have taken the opportunity to make several considerable updates, in total revising 35 of 52 pages.

Key strategies and plans we have opted to reflect in this update

- Publication of Business Plan 3 and Ofgem response
- Our role as the Interim Coordinator for the UK's Data Sharing Infrastructure
- Updates to Customer, AI, Data, & Corporate strategies and plans



Major Revisions

- Customer definitions
- Digitalisation Strategy Guiding Principles:
 - Data & AI Driven
 - Customer Centric
- Action Plans:
 - Cross-Cutting Efforts
 - BP3 Investments

Minor Revisions

- Submission Foreword
- Welcome to NESO
- Digitalisation Strategy Guiding Principles:
 - Future Technology-Led

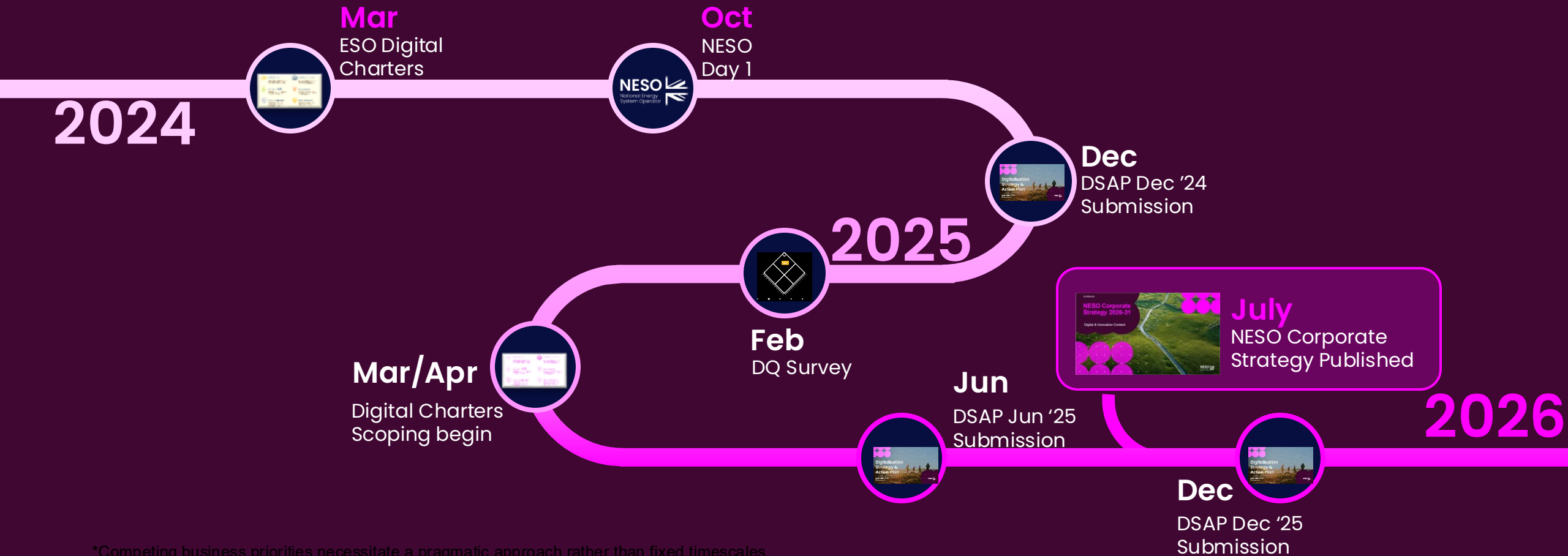
DSAP – June 2025 in detail

Here's a summary of where those changes have been made, for easy referencing when the final document is published in June.

| DSAP Page no. | Section | What was updated |
|------------------|---|---|
| 6 | Foreword | Reflecting our continuous efforts to be a Digital Leader as well as our new role as the Interim Coordinator for the UK's Data Sharing Infrastructure, recognising our leadership in digitalisation. |
| 9 | Our Customers | Updates to the customer sections, including latest definitions of customer and consumer. From a technology perspective we've highlighted how digital will underpin our customer initiatives. |
| 18 | Guiding Principles: Future Technology Led | ADO was updated to reflect the new Volta programme. |
| 21-22 | Guiding Principles: Data & AI Driven | Data and AI have been updated to align with ongoing work and the new AI strategy. |
| 24-25 | Guiding Principles: Customer Centric | We've incorporated NESO's current customer initiatives into the Customer Centric guiding principle. |
| 28-35 | Action Plan: Cross Cutting Efforts | All cross-cutting milestones have been updated and outdated efforts have been removed. |
| 38-53 | Action Plan: Digital Leaders | BP3 milestones have been updated according to change requests, highlighting progress and changes in milestone dates. |

Digital Strategy Roadmap

Directorate Digital Charters development will replace existing DSAP Action Plan roadmaps. Our approach is designed with the intention to have Digital Charters completed in a pragmatic and *timely manner. This change will demonstrate DD&T's priority on building digital strategy from the ground up, and future DSAP 2025 will reflect this new approach, whilst being fully aligned with the forthcoming Corporate Strategy



*Competing business priorities necessitate a pragmatic approach rather than fixed timescales.

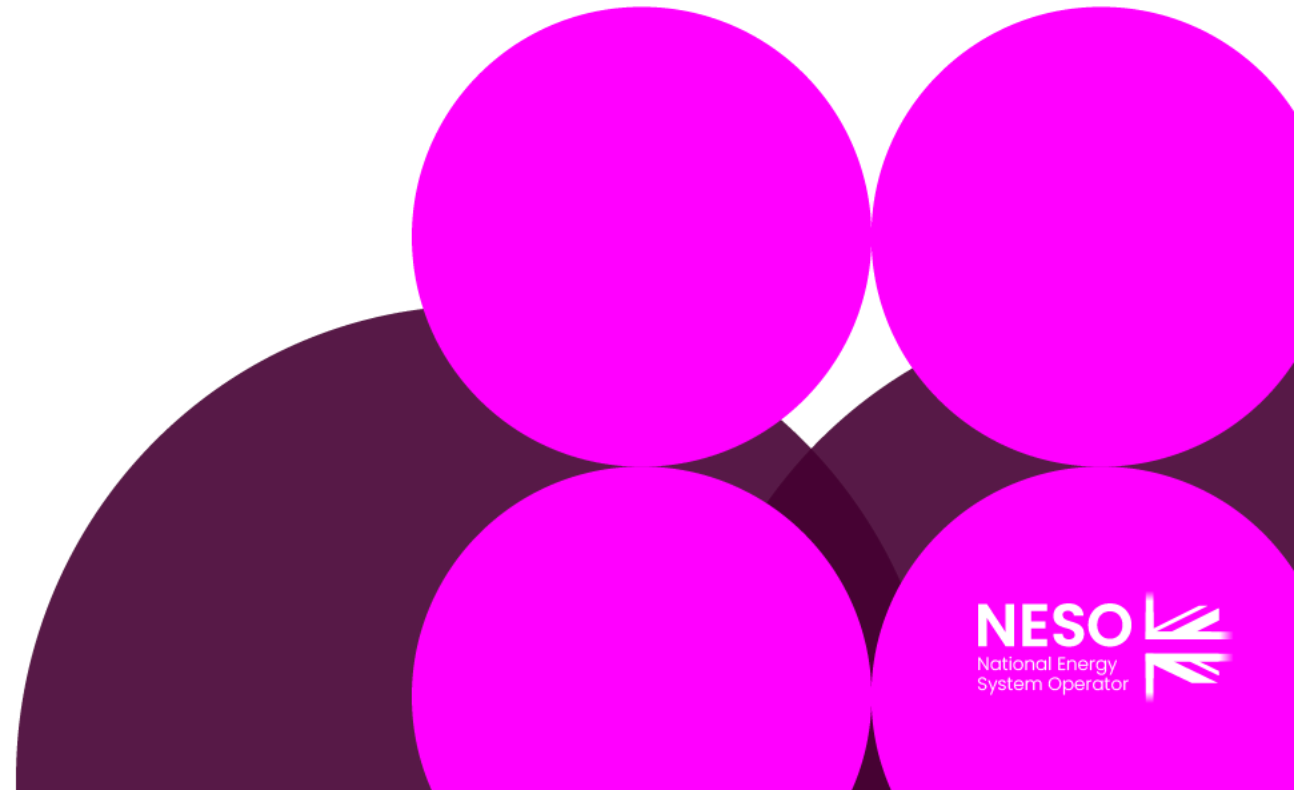
AI operating model and roadmap

Item 6

Mo Al-Shakarchi

Topics to discuss...

- AI North Star, outcomes and horizon map
- Target AI Delivery model
- Support from TAC on any known products that will help accelerate delivery



AI Charge to 2030 – North Star and Results



2030+ Mission & Pathways

Mission: Create AI technology that is deployed world-wide, to drive the transition to net zero

NESO Excellence

GB Industry Champion

Global Impact



2030 North Star

North Star: scale augmented AI to inform 100% of our critical decisions with Native application of AI into 100% of new NESO Work



2030 Key Outcomes



AI Whole System Planning, incl. Vanguard

Create an **Augmented AI Planning Advisor** that rapidly runs multiple scenarios, with **100% of key scenarios AI generated** and **100% adopted to advise on** key decisions



AI Whole System Operations, incl. Volta

Create an **Augmented AI Operations Advisor** that supports operations teams and control rooms to scenario plan multiple options real-time and adopted to advise on **100% of key real-time decisions**



NESO.AI Experiences – AI experiences through NESO.AI, incl. Neso. GPT

Develop an **augmented AI advisor** that offers **90% AI First experiences for customers** and carries out / advises on **100% of key enabling services for staff**



NESO.AI Platform Ecosystem – Industry wide ecosystem

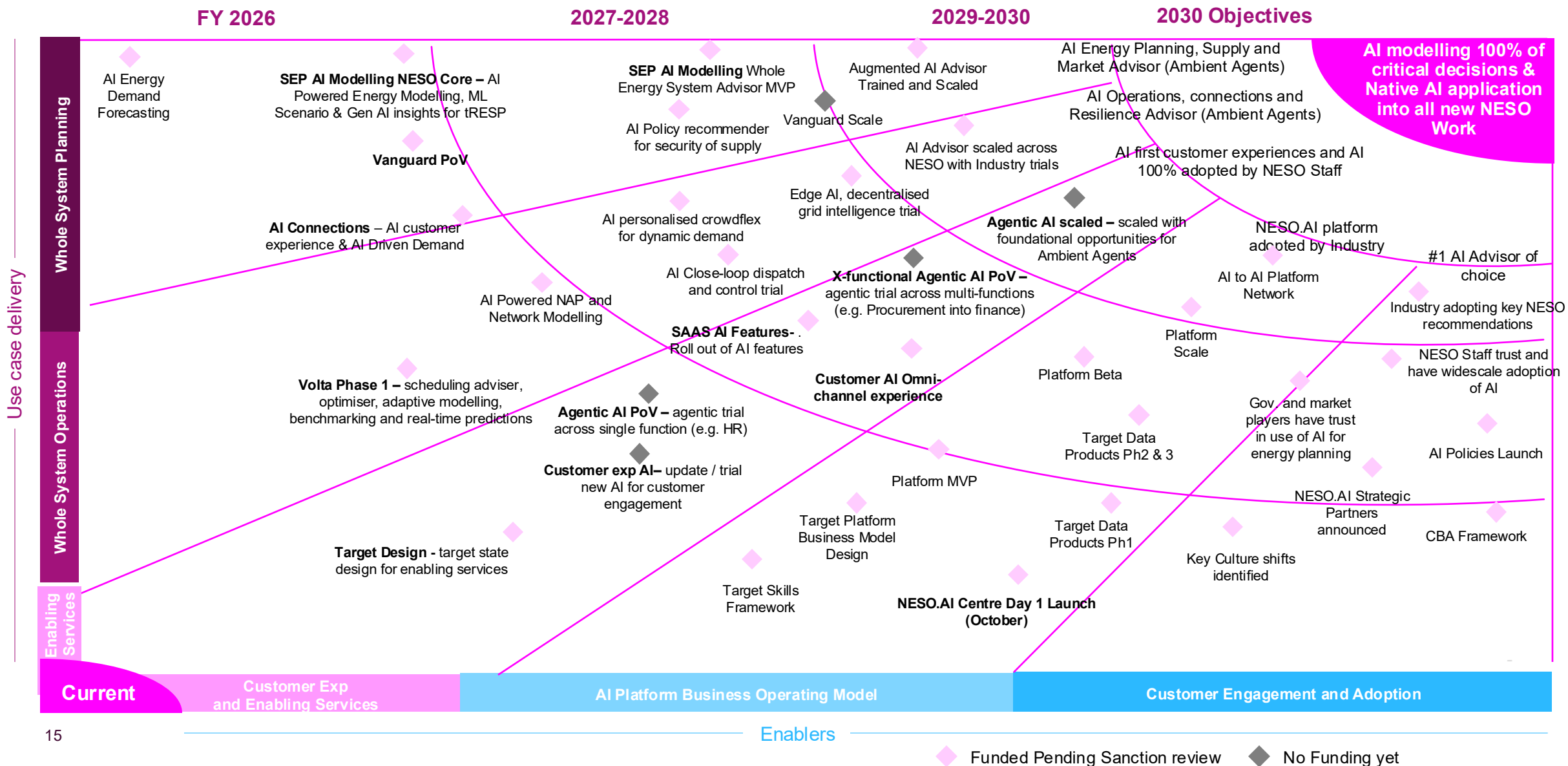
NESO.AI Whole Energy System Platform Ecosystem 70% adoption across GB industry with **Adoption of 30 GB AI models Globally**



AI Whole Energy System Community – from policies to AI Start-ups

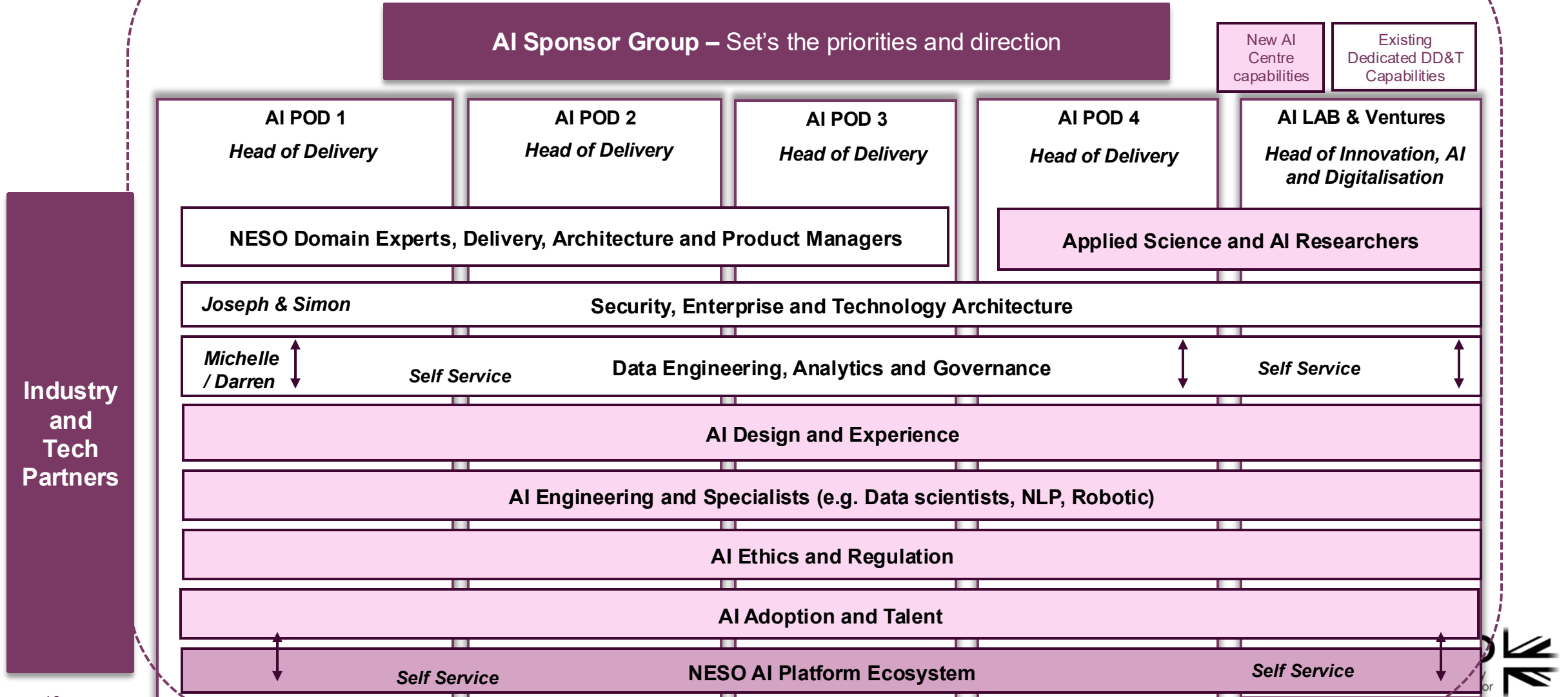
#1 AI Advisor of choice to Ofgem, DESNZ and Energy start-ups through our **NESO AI Energy Centre**

2030 Horizon Map



NESO AI Energy Core Team – Target Delivery Model

NESO AI Centre – Executive Owner (Shubhi Rajnish), Sponsor (Carolina Tortora), AI Strategy and Delivery (Mo Al-Shakarchi)



FY 26 – 3 Key Objectives to take us towards our AI Charge to 2030



2030 Key Outcomes

NESO Excellence



AI Whole System Planning, incl. Vanguard



AI Whole System Operations, incl. Volta



NESO.AI Experiences – AI experiences through NESO.AI, incl. Neso. GPT

GB Industry Champion



NESO.AI Platform Ecosystem – Industry wide ecosystem

Global Impact



AI Whole Energy System Community – from policies to AI Start-ups



FY 26 Objectives & Results

1) Deliver value through 6 AI initiatives

AI POD 1; Planning

- Inform 2 key decisions and scenarios through augmented AI
- Map Priority **Critical pathways** to be informed by AI

AI POD 2; Operations

- Inform 1 key decisions and scenarios through augmented AI
- + 10% automation of current workflows
- Map target state decision making for all **real-time scenario modelling**

AI POD 3; Customer and Enabling Services

- PoV for AI first customer experience, with 70% of journeys AI operated
- SAAS AI rollout (Value based)

2) Ensure 50% of AI is adopted as intended

3) Showcase our ambition and launch NESO AI

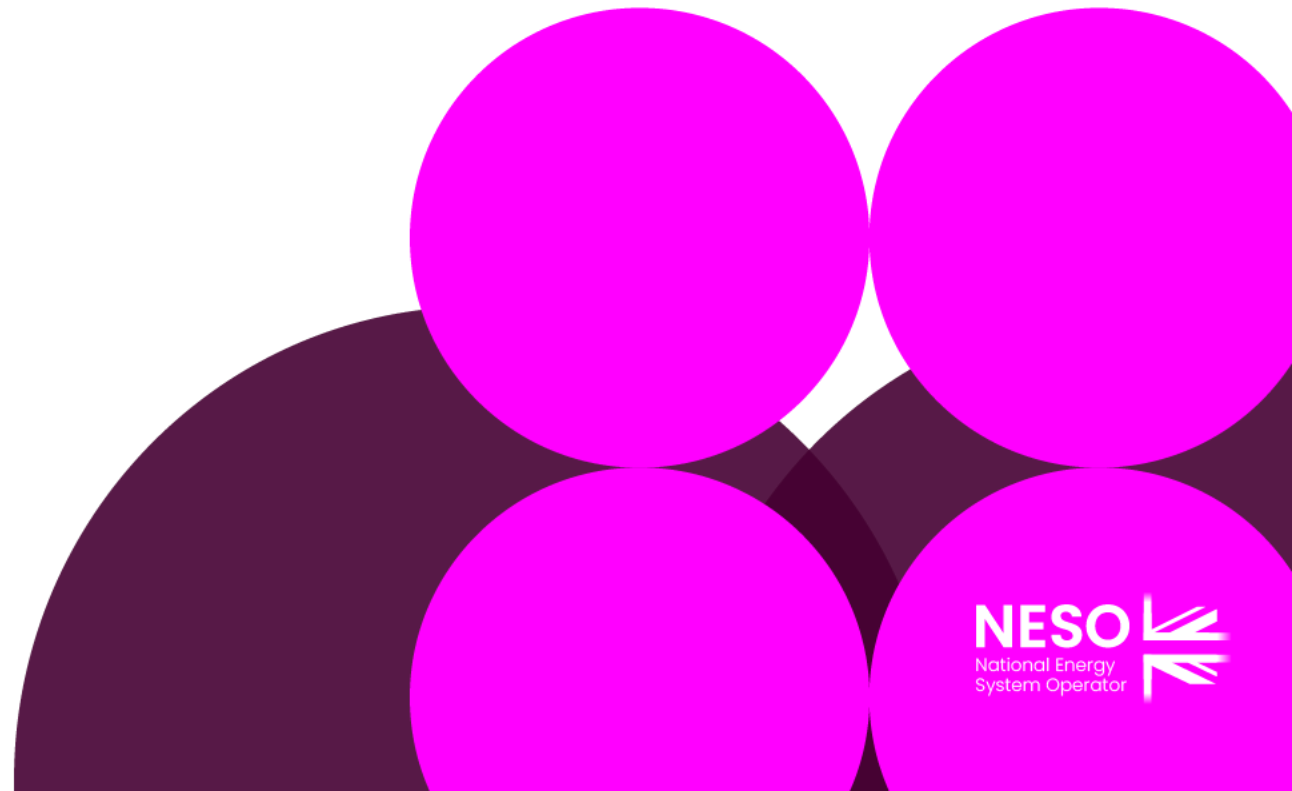
AI POD 4; Labs & Core Capabilities

- AI Adoption at 50% of intended use (NESO)
- Target autonomous AI decisions agreed
- NESO AI Community beta launch, with 1 model shared
- NESO AI Energy Core launched, with 2 key strategic partnerships announced

Delivered By Our NESO AI Energy Core Team

Break

10:55 – 11:10



Clean Power 2030 Tracker

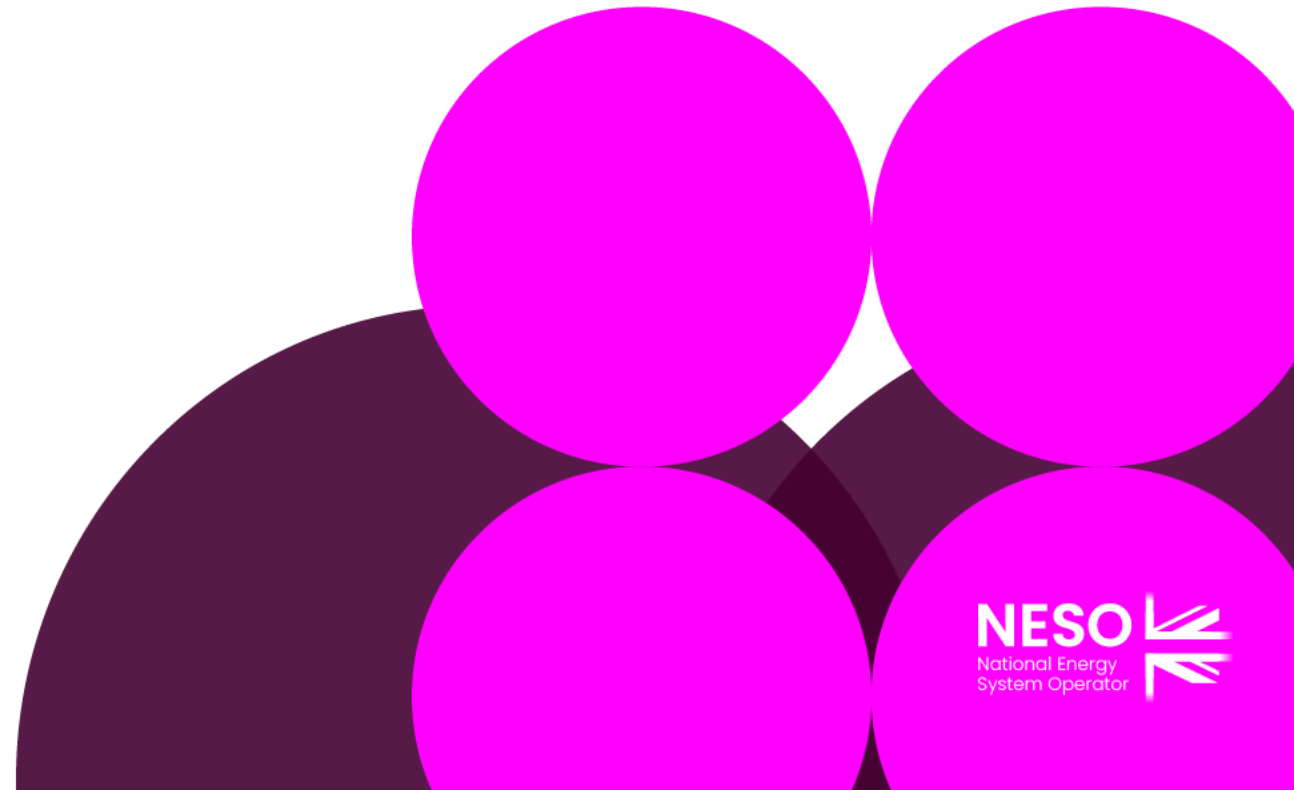
Item 7

Daniel Delgado

Open Balancing Platform Update

Item 8

Mayank Jha



Progress Since March 2025

New IT system:

- **Real Time Prediction (RTP)**



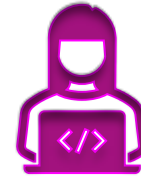
Deliverable: Online demand prediction using new machine learning algorithms

Benefit: More accurate demand profiles feeding new National Dispatch Optimiser

What does this mean for you? More accurate balancing actions resulting in lower balancing costs

Open Balancing Platform:

- **Constraint Management**



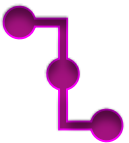
Deliverable: New OBP displays supporting the visualisation of constraints combined with a price stack so that instructions can be planned and then sent to resolve future issues

Benefit: Better constraint management

What does this mean for you? Supports improved economic dispatch

Open Balancing Platform:

- **Manual Instructions**



Deliverable: Ability for control engineers to issue individual instructions to BMUs. Initial deployment in Battery, Small, Solar and STOR Zones

Benefit: Allows functionality from legacy systems to be moved to OBP

What does this mean for you?: Allowing all instructions to be issued from OBP increases situational awareness supporting economic decisions.

Open Balancing Platform:

- **Enabled to support Clock Change**



Deliverable: OBP supports clock change

Benefit: Hands on use of Fast Dispatch and Bulk Dispatch over the clock change period (covering the change period 00:00 to 02:00 in summer and autumn)

What does this mean for you?: No interruption in the issuing of bulk instructions

Major Milestones and Expected Impacts



Delivered **automated** instruction creation and send allowing use of smaller flexible assets



Implemented new **optimisers** in the battery and small BMU zones reducing time for control engineers to make economic choice



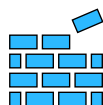
Major **increase** in the number of instructions sent to batteries and small BMUs



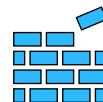
Enhanced **support** for constraint management improving balancing costs



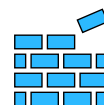
Implementation of BM Balancing Reserve and Quick Reserve



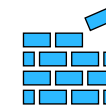
Summer 2025 – implement NBM version of **Quick Reserve** and provide new industry APIs supporting customers



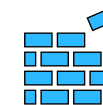
Summer 2025 – Provide **optimisation tools** to solve a constraint reducing balancing costs **and** ensuring units are not overly restricted



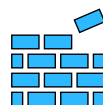
Autumn 2025 – new **national optimiser** with better **wind modelling** reducing balancing costs



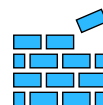
Autumn 2025 - implement BM and NBM **new Slow Reserve** product delivering consumer benefits and new opportunities for flexible assets



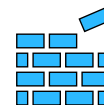
Autumn 2025 - deliver a **2nd Data Centre** providing enhanced resilience to OBP and reducing **sub-optimal market operation** during downtime



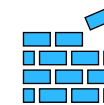
Autumn 2025 - **combine** management of BMU and NBM response on OBP **reducing balancing costs** through **joint monitoring**



Autumn 2025 - deliver new **real-time predictors** to the control room improving dispatch decisions

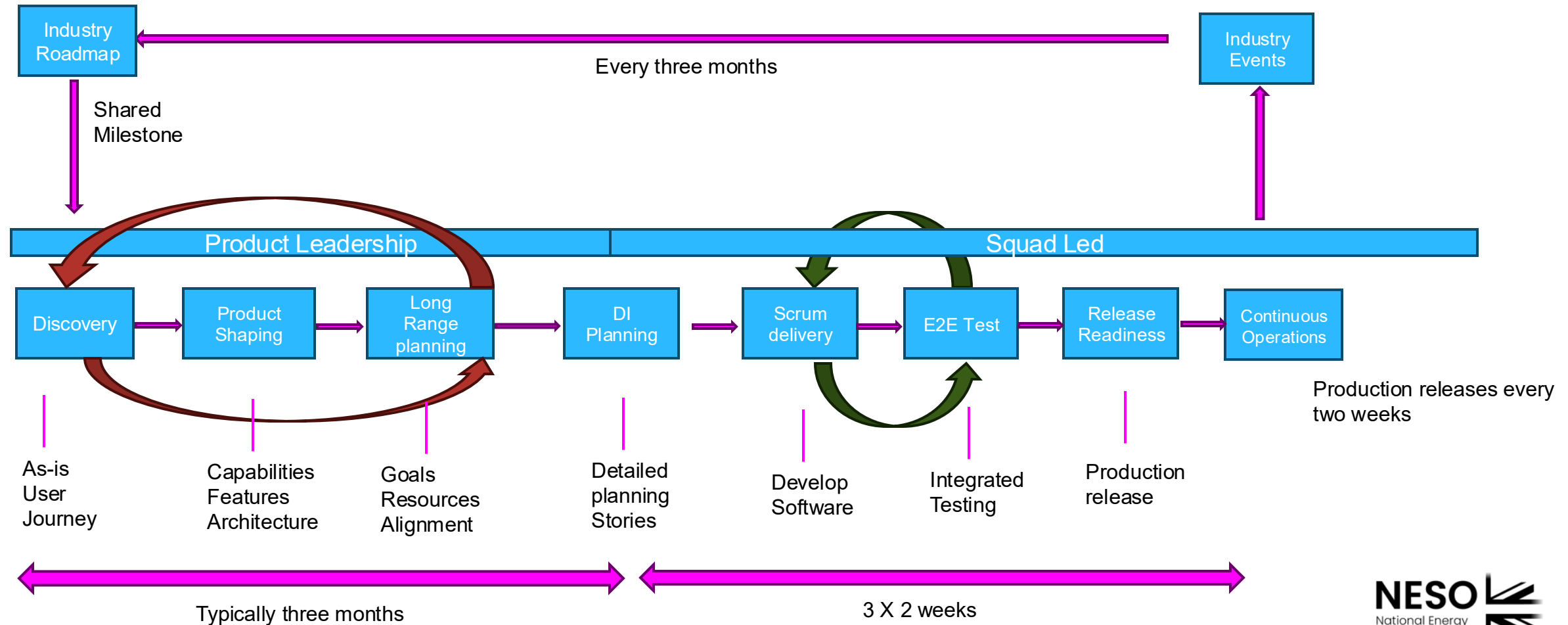


Autumn 2025 - improve **dispatch of Wind** by interfacing to new forecasting tools and choosing best profiles



Winter 2022 - implement Grid Code change **GC0166** for batteries **improving scheduling** decisions

Converting an Industry Roadmap into Agile Delivery



Balancing Systems Release Plan

Key:

- Complete

PI 14 (Oct 24 – Jan 25)

OBP Capabilities & Enablers:

1. Interface to **Data Analytics Platform** (DAP)
2. **BM Quick Reserve** Business Go-Live

Non-OBP Capabilities:

1. **ASDP System** – Final release
2. **BM System** – Legacy Dispatch Algorithm updates (NEW)
3. **VERGIL** – addition to improve economic dispatch (NEW)
4. **Dispatch Efficiency Monitor** – real-time monitor (NEW)

****Please note – GC0166 implementation date is dependent on the outcome of the Grid Code Modification process****

PI 16 (Apr 25 – Jul 25)

OBP Capabilities:

1. Non-BM Instruction Types
2. Non-BM Quick Reserve
3. National Optimiser
4. Pumped Storage BOAs
5. Bulk Dispatch Wind BMUs (rule based)

PI 18 (Oct 25 – Jan26)

OBP Capabilities:

1. Constraints Pathfinder
2. Stability Pathfinder
3. Manage Sync/De-sync

OBP Enablers:

1. Ready to decommission ASDP
2. EDT/EDL mastered from OBP
3. PEF Integration

**Retire ASDP,
VERGIL & CLOGS**

PI 15 (Jan 25 – Apr 25)

OBP Capabilities:

1. Constraint Management
2. Manual instructions

OBP Enablers:

1. Interface to Ancillary Settlement for NBM
2. Non-BM APIs

PI 17 (Jul 25 – Oct 25)

OBP Capabilities:

1. BM & Non-BM Slow Reserve
2. Move MW Dispatch
3. Move Response (DC/DM/DR)
4. Optimisation within a Constraint

OBP Enablers:

1. Ready to decommission ASDP
2. OBP becomes Operationally Critical

PI 19 (Jan 26 – Apr 26)

Capabilities:

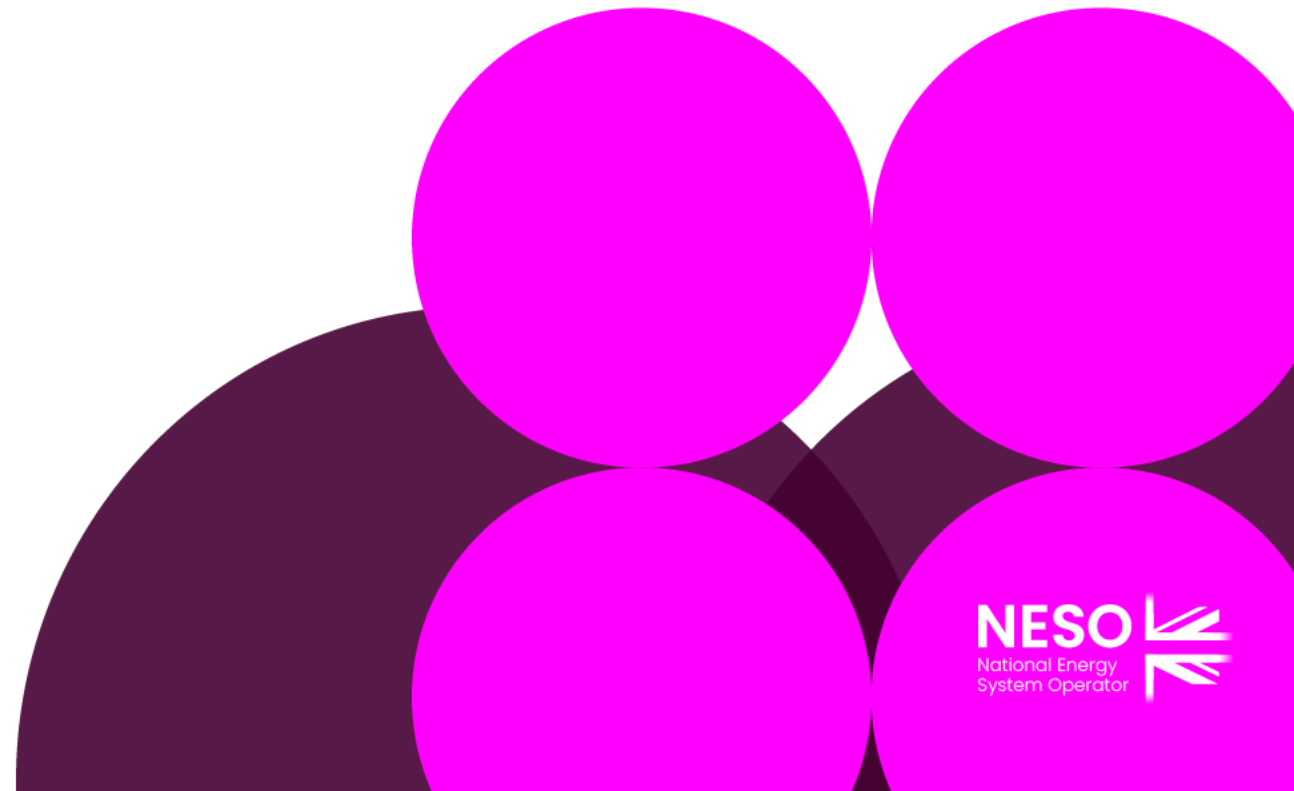
1. Interface to NCMS for constraints
2. Response and Inertia

Abbreviations: **DC:** Dynamic Containment **DM:** Dynamic Moderation **DR:** Dynamic Regulation **BOA:** Bid Offer Acceptance **DX:** Dynamic Response **VERGIL:** Versatile Graphical Instruction Logger **NCMS:** Network Control Management System **EDL:** Electronic Dispatch & Logging **EDT:** Electronic Data Transfer **ASDP:** Ancillary Services Dispatch Platform **CLOGS:** Contingency Logging System

Subgroups update

Item 9

Cameron Shade



Subgroups update

Digital and Data Strategy held 11th April

- Digital Quotient
- Digital Charters
- Next meeting 11th July 2025.

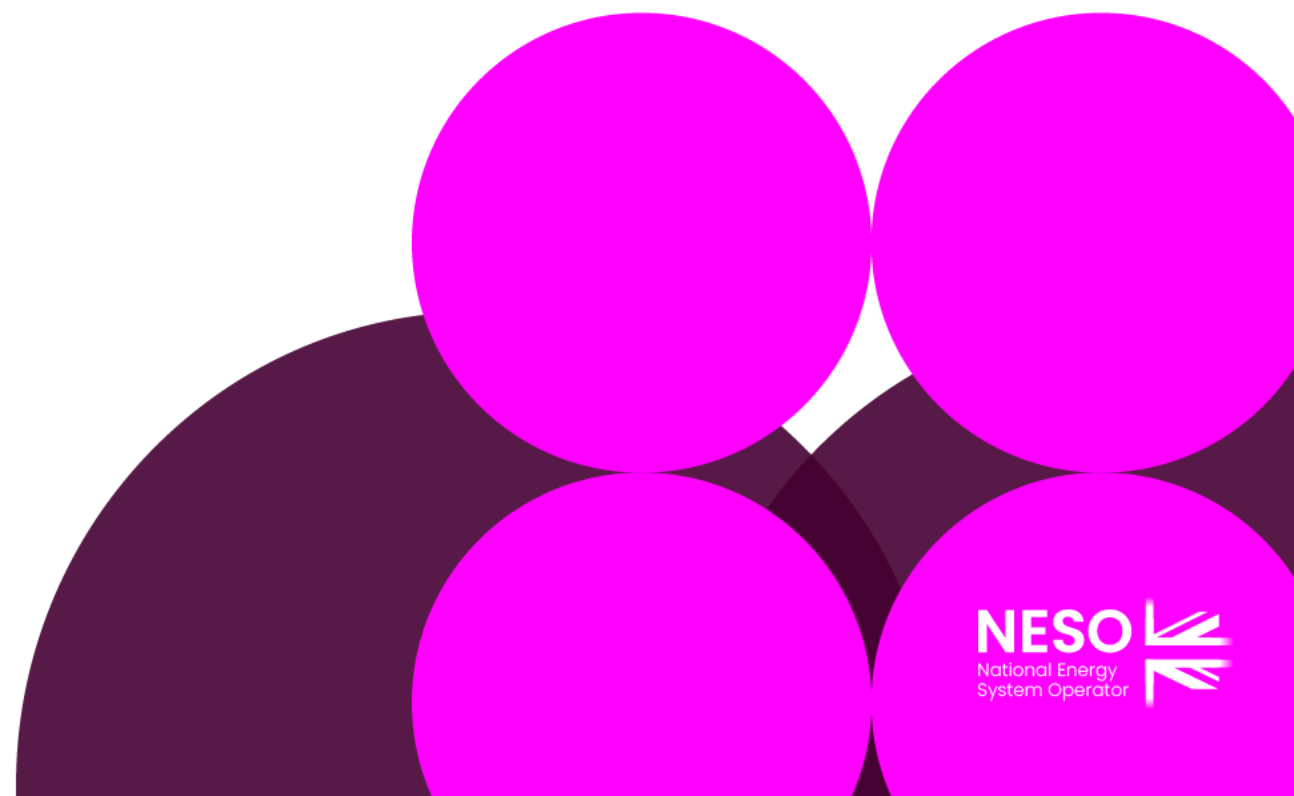
Control Room of the Future held 23rd May

- Data management
- Interoperability of systems and processes
- Achieving comprehensive visibility of assets
- Effective use of Distributed Energy Resources
- Primacy and Market Services design
- Next meeting date August exact time TBC.

Next meeting

Item 10

Eric Brown



Next meeting

Meetings are every quarter for a half-day on the first Friday morning of the month, 9am-12.30pm.

- 5th September 2025
 - In person Edinburgh

AOB

Item 11

Eric Brown

