
NORTH EAST LONDON CANCER ALLIANCE
AI Strategy and Gap Analysis
AI Use Case Discovery Findings and Path to AI Adoption

Why AI. Why Now.

Rising demand
Cancer referrals increasing year-on-year, outpacing capacity across NEL trusts

Frontline Productivity Programme
there is 6% productivity gap below pre-covid levels, thus this government has set a larget of 2% annual productivity improvement

AI is ready
Proven and safe tools exist in imaging, MDT documentation, pathway management

Workforce pressure
Staff burnout, high vacancy rates and growing administrative burden divert from patient care

NHS 10 Year Plan
National mandate, hospital to community, analogue to digital, treatment to prevention and AI is i in only 5 named technologies that are listed for the £ 10B investment

Window of opportunity
Existing programmes (FDP, Snowflake, SCR) provide a rare integration foundation

AI in healthcare uses algorithms and machine learning to analyze medical data for diagnosis, treatment, and operational decisions. This ranges from cancer detection software to systems identifying patterns across vast datasets that individual clinicians cannot. Unlike consumer AI, healthcare AI operates under strict regulatory and data governance frameworks; the clinician remains accountable, and the technology acts as decision support, not a decision-maker.

How NELCA built this strategy

Key objectives:

- Assess AI readiness across North East London
- Identify high-impact use cases for AI adoption
- Develop implementation roadmap
- Establish ethical AI practices

01 Discovery and Assessment

- Stakeholder interviews and workshops
- Use case capture sessions
- Ai digital maturity review
- Benchmarking against NHS peers

02 Analysis and Prioritisation

- 81 use cases scored on impact + feasibility
- Staff surveys across clinical and admin roles
- Patient engagement via survey and forum
- GP primary care input sessions

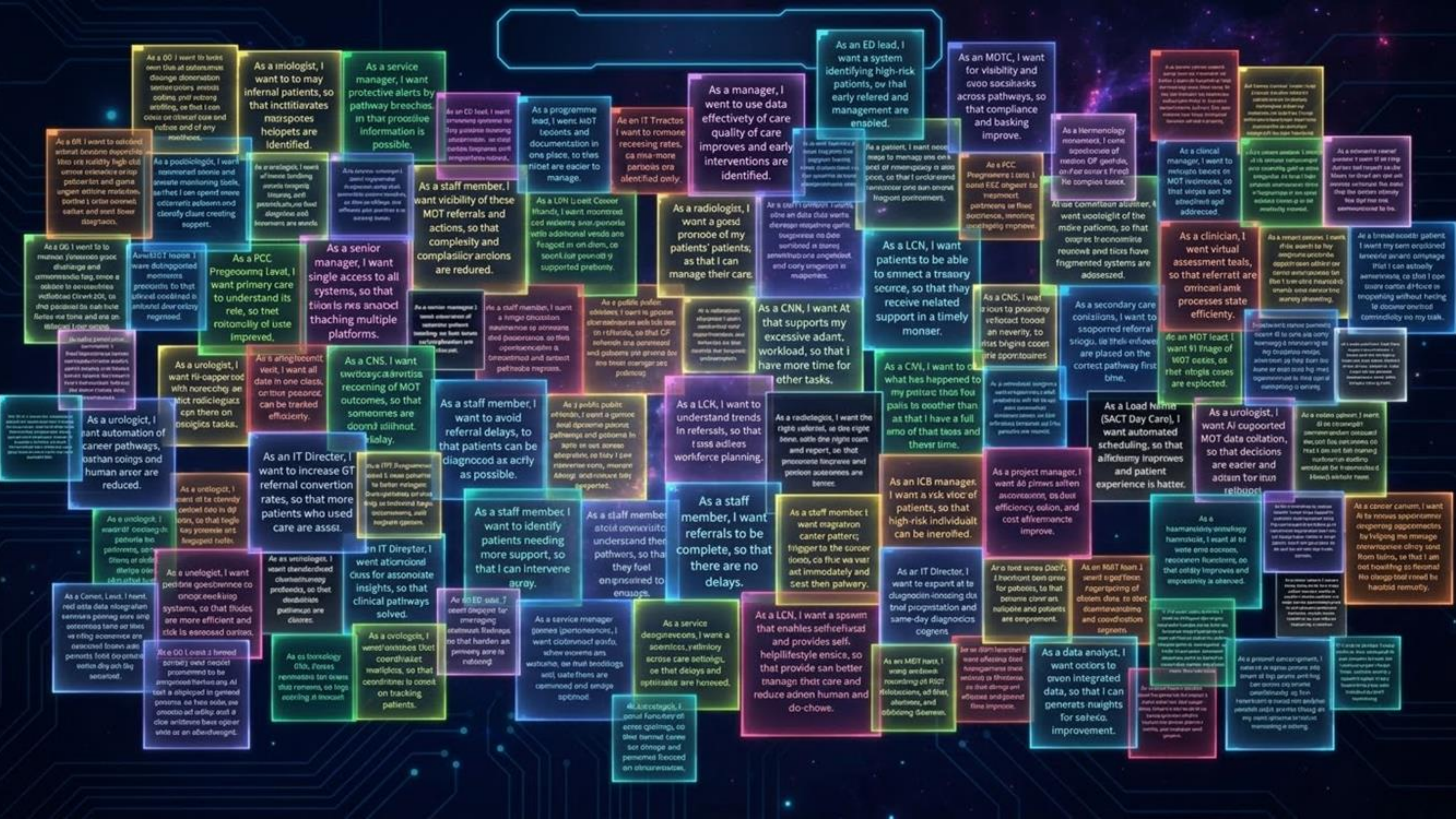
03 Strategy Development

- 8 strategic themes identified
- Governance framework designed
- Implementation roadmap built
- NHS 10 Year Plan alignment confirmed

04 Launch and Embed

- Today: stakeholder input and validation
- AI Steering Group launch
- First use case pilots
- Benefits realisation tracking begins

Purpose: Develop comprehensive AI Strategy and gap analysis for NELCA to leverage AI for innovation, efficiency, and improved patient outcomes.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As an MDTC, I want for visibility and cvoo socsihasks across pathways, so that compliance and basking improve.
As a manager, I went to use data effectivety of care quality of care improves and early interventions are identified.
As a service manager, I want protective alerts by pathway breeches, in that proactive information is possible.
As a urologist, I want to to may infernal patients, so that incttiiavates masspotes helopets are identified.
As a programme lead, I went MDT tepoonts and documentation in one place, to thes nibet are eacier to manage.
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As a staff member, I want vicibility of these MDT referrals and actions, so that complexity and complasiicy anclons are reduced.
As a radiologist, I want a goesd pronooe of my patients' patients, as that I can manage their care.
As a senior manager, I want single access to all systems, so that tiion is nes anaocd thaching multiple platforms.
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As a urologist, I want Hi-capperod with noreccheg an otict roiicicigiacs cpn there on osoigics tasks.
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As a urologist, I want AI cupoorted MDT data colation, so that decisions are eacier and adtam tor inm
As an IT Directer, I want to increase GT referral convertion rates, so that more patients who used care are assst.
As a staff member I want to identify patients needing more support, so that I can intervene acray.
As a staff member, I want referrals to be complete, so that there are no delays.
As an ICB manager I want a vsk vloc of patients, so that high-risk individuolt can be ineroifed.
As a project manager, I want efficiency, colion, and cost afficmmancte improve.
As ar IT Director, I want to expant at te diagnocian-ionecing dis tnel progistation and same-day diagnocios cogrens
As a LCN, I want a spswm that enahles selfcefiasd and provides self. helpilifestyle ensice, so that provide san better manage thdt care and reduce adnen human and do-chowe.
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As a service manager I want to
As a urologist, I want
As a service
As a unelogict, I want
As a cvologcit, I want
As a Conen, Lead, I hant

Use Case Discovery

Eight strategic themes

12
MDT Optimisation

11
Admin Automation

10
Pathway Tracking

10
Imaging

9
Referral Quality

12
Patient Self-Mgmt

8
Data Infrastructure

9
Early Diagnosis

81
Total Use Cases

5
Quick Wins

35
Strategic

8
Themes

Pathfinder-i

Key Findings

LEVEL 1
Ad-hoc/exploratory

Isolated experiments; no formal AI roadmap

- Fragmented data sources
- Manual extracts dominate
- No defined IG pathway for AI
- Minimal workforce awareness
- No role-based training
- No benefits tracking for AI

LEVEL 2
Developing

Early pIncts and appette; no formal set up

- Small-scale procurements
- Partial integration into federated data platforms
- Slow IG/DPIA processes
- Variable AI literacy
- Limitations on heavier work

LEVEL 3
Defined

Strategy and direction defined, no automation for new AI adoption

- Organisation-wide AI strategy
- Inventory and AI readmop
- Standing AI Governance
- Standard vendor onboarding
- Role-based training
- Interoperability plan
- Enriched data model fields
- Ring-fenced pilot budgets
- Basic benefit metrics

LEVEL 4
Managed

Functional use of AI, lack of full utilisation for funding and research

- Repeatable deployment pattern
- Model monitoring
- SLA-based improved DPIA
- Data access patterns
- Automation and remote monitoring feeding consistent analytics
- Costed compute strategy and environment provisioning

LEVEL 5
Measured

Clear benefit analysts across the organisation, measured by KPIs

- Outcomes-linked KPIs
- "AI Academy" certifications
- Lifecycle MLOps (drift, blas, re-training) and safety case refresh
- Secure Data Environment integrations
- Federated analytics as a standard
- Portfolio funding model
- Benefits realisation tracked across pathways

LEVEL 6
Optimised

Full use of AI across the organisation with rapid AI change management

- AI embedded "business as usual" across priority pathways
- Proactive risk/ethics management
- Synthetic data in routine use
- Cross-organisation collaboration and research partnerships
- Dynamic capacity/compute optimisation
- Automated governance
- Continuous improvement loop

OVERALL MATURITY

39%

Score: 11/28

Level 2 - Developing

Meaningful progress with gaps in implementation

5 priority use cases

Ambient MDT Documentation
Automates recording and summarisation of MDT meetings, reducing workload and improving real-time cancer-tracking integration

Lung CT AI Extension
CT AI (Lung) supports identification of suspcious lung modules to improve cancer detection

Referral Data Alerts for Breach Risk
Provides early warnings when patients risk breaching waiting-time targets, enabling proactive intervention and improved pathway management

Pre-Appointment Patient Questionnaires
Embeds risk-stratification questionnaires into EPR systems, reducing clinic time and improving triage and consultation preparation

Admin and Pathway Optimisation and Automation
Automates notifications, reduces manual coordination, optimises SACT appointment scheduling and improves capacity utilisation

What it could look like?

Governance and Stakeholders

AI STEERING GROUP

CORE LEADERSHIP

Chair | SRO | Programme Lead | AI Programme Director

AI CHAMPIONS

Barts Health NHS FT		BHRUT		Homerton University Hospital	
CCIO	Barts Health NHS FT	CCIO	BHRUT Ayann	Deputy CCIO / AI Lead	Homerton I Hospital
CNIO	Informatics Lead	CNIO	BHRUT Wangon	CNIO	Homerton UII Lead
Informatics Lead	Informatics Lead	Informatics Lead	BHRUT Johma	IT / Digital Lead	Homerton Univ Hospital

SYSTEM-WIDE ROLES

IG / DPIA Lead | NE Clinical Safety Officer | Training Lead | GP / Primary Care Rep. | Patient Representative

Technical Roadmap and Principles of Responsible AI Adoption

Safe, Confidential and Secure

Patient safety paramount. DCB0129/DCB0180 compliance. Human oversight on all clinical decisions.

Ethical and Transparent

Ethics Committee review for all AI. Bias audits. Explainable AI. No black-box decisions in care.

Co-produced with Lived Experience

Patients and carers shape AI design. Service user advisory groups. PPI embedded throughout.

Data Quality First

Strong data foundations before AI deployment. No AI on poor data. GDPR/Caldicott compliant.

Research and Evaluation Focused

Every deployment is rigorously evaluated. Academic partnerships. Evidence drives iteration.

Sustainable and Partnership-Driven

Built with trusts, ICB and community partners. No silo implementations. Shared governance.

Delivery Timeline and Milestones

Budget Allocation
Phase 1: Foundation and Mobilisation
Phase 2: AI Literacy and Capability Building
Phase 3: Pilot Implementations
Phase 4: Board Approval and Scale-Up
Phase 5: Operational integration

Core Delivery Team			
Clinical Lead		Data Science Lead	
IG Manager		Clinical Safety Officer	
Implementation Mgr		Comms Lead	
Bi Analyst		Programme Mgr	

Success Criteria

Delivery Performance

- All phasey within thorapties (≤1 month)
- Min. 3 pians completed by Month 15
- Expenditure within budget (›105)
- Board approved by Month 15

Benefits Realisation

- Improvement in 22 susteme demains
- 135 admio time ssvings achieved
- Credible 5-year ROI pathway
- AI initcarity progrestion 31 level
- Academic publication submittad

Patient Safety

- Zero serious hann from AI
- All patiens adequstely nolligated
- Safkty dashboards pogression
- No regulatory enforcement action

Recognition and Satisfactien

- Staff salffiactien ›4/5
- Meeningful pattent progresoant
- HIMSS AMAM Isoel progression
- National award commendation
- NHS England case stady feature

Delivery Timeline and Milestones

Foundation and Mobilisation
SRO appointed · Governance framework approved · AI Ethics Committee / established · Team mobilised

1

AI Literacy and Capability Bullding
AI literacy pregramme launched 15+ clinical champions assessnixeties · Infrastructure assessment

2

Priority Pilot Implementations
3-5 pllats vnplemented · Clinical sssets and OPIAs completed · Interim evoluatons at 6 months · Comprehensive resaive, resementation reports with scale-up recommendations

3

Board Approval and Scale-Up Decision
Independent acadution evalution · AI Ssering Group recommendations Financial analytl · Trust sord recured for minmum 2 implementatiens

4

Operational Integration
Phased poll voll acs aal altcs · Trancileatien to LanDD Benefis ownership · Programme 12 months

5

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Recognition and Satisfaction
- Staff satisfaction >4/5
- Meanhigfel patient involvement
- H0M2S AMAM level progression
- National award commendation
- NHS England case state feature

NELCA

Expected Benefits

30%
Admin burden reduction

20%
FDS breach reduction

+6%
Early-stage diagnoses

2-3M
GBP annual savings

WORKFORCE

- Hours saved per clinician/week: **5-10**
- Documentation reduction: **40-50%**
- Staff AI confidence: **80%+**

PATIENT EXPERIENCE

- Unnecessary contacts: **-15%**
- Confidence improvement: **+30pts**
- DNA rate reduction: **10%**

OPERATIONAL

- Referral delays: **-30%**
- Wrong pathway: **-25%**
- RPA time savings: **60-80%**

Target:
5-10% admin time saved

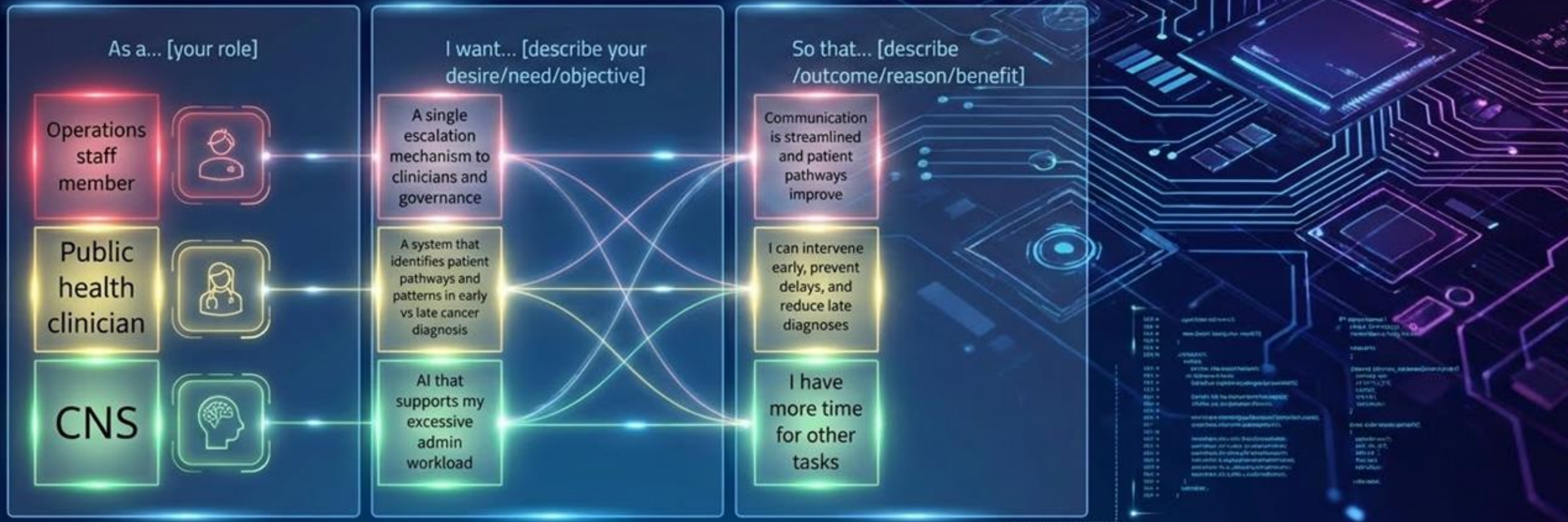
Target: 20%
FDS breach reduction

Target: 60%
stage 1-2 diagnoses

Workshop

As a (persona), I want (need), so that (deliverable)

Examples



Questions for Your Table

- Is anything standing out to you that may seem missing or needs to be incorporated in the strategy today?
- What are the biggest risks or concerns you foresee about the adoption of AI in NEL?
- You heard today how to make AI in healthcare inclusive, what else we can do?

Short - Medium term planning

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Early plncts and appette, no formal set up

Small-scale procurements
Partial integration into federated data platforms
Slow IG/DPIA processes
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Federated analytics as a standard
Portfolio funding model
Benefits realisation tracked across pathways

May – June 2026

→ AI Steering Group first meeting convened

→ AI literacy programme begins

July–Sept 2026

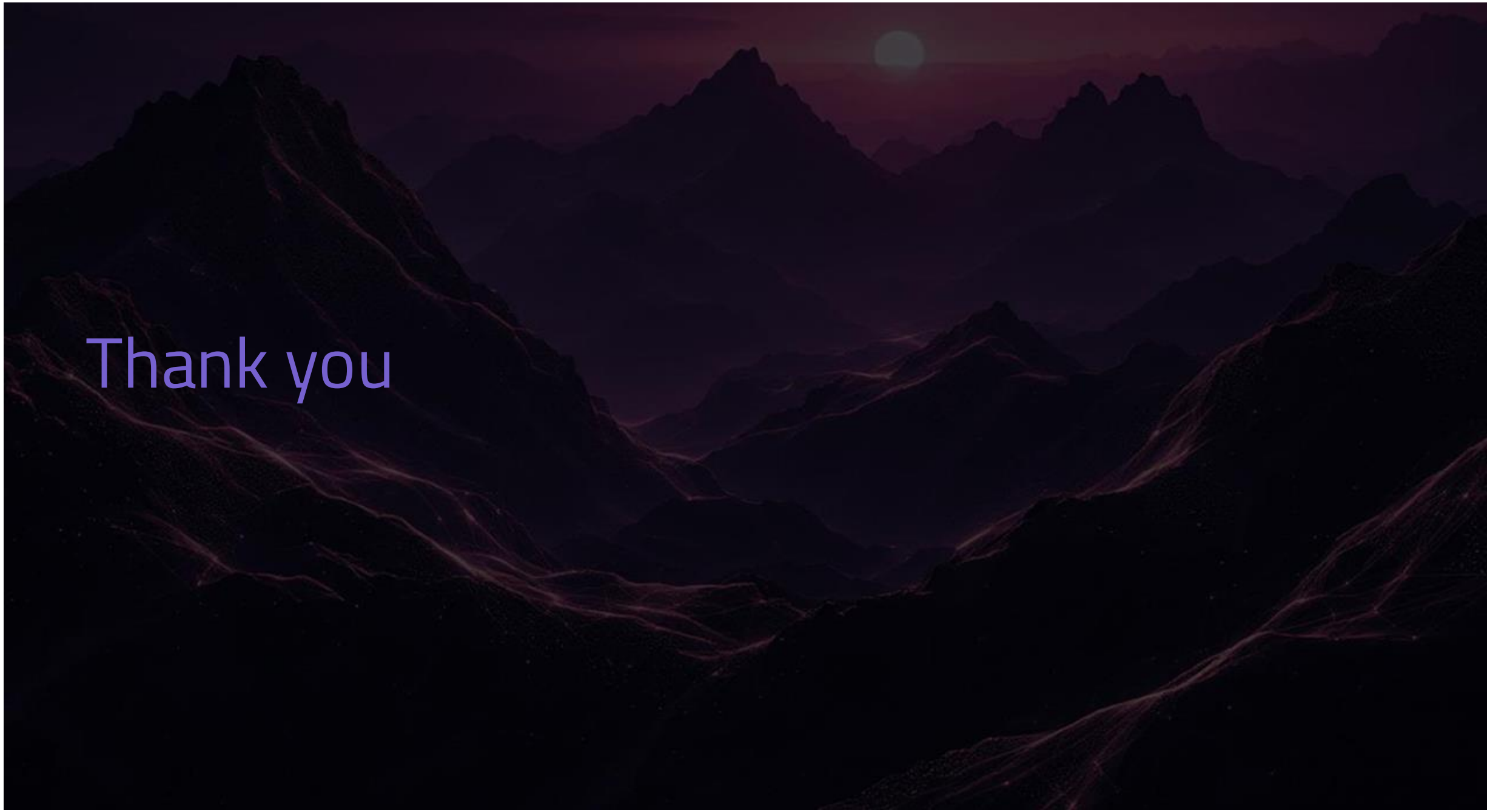
→ First pilot deployment (1-2 use cases)

→ Benefits tracking framework live

2027 Ambition

→ NELCA recognised as regional AI leader

→ Evidence base for national benchmarking ready


Thank you