

NHS HOSPITAL IT CONFERENCE

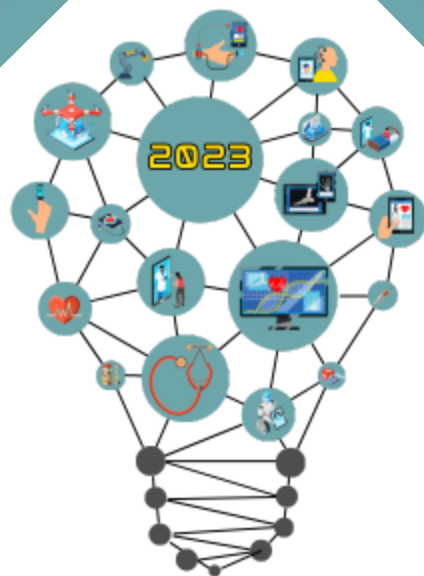
Wednesday 1st November | 15Hatfields, London

Agenda for today:





Welcome to the NHS Hospital IT
Conference!



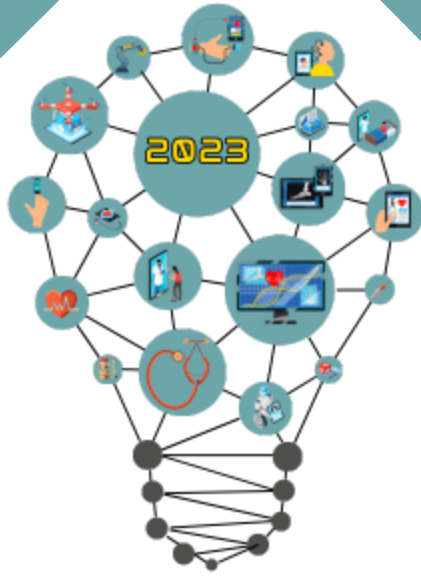
**NHS HOSPITAL IT
CONFERENCE**



1st November 2023
8am – 4pm
15Hatfields, London



Chairs Opening Address



**NHS HOSPITAL IT
CONFERENCE**



Dr Gurnak Singh Dosanjh

GP and ICB Clinical Lead for Home First -
Leicester, Leicestershire and Rutland ICB



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Slido

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Speaking Now...



**NHS HOSPITAL IT
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Mr David Norton

Senior Innovation Consultant -
NHS



Speaking Now...



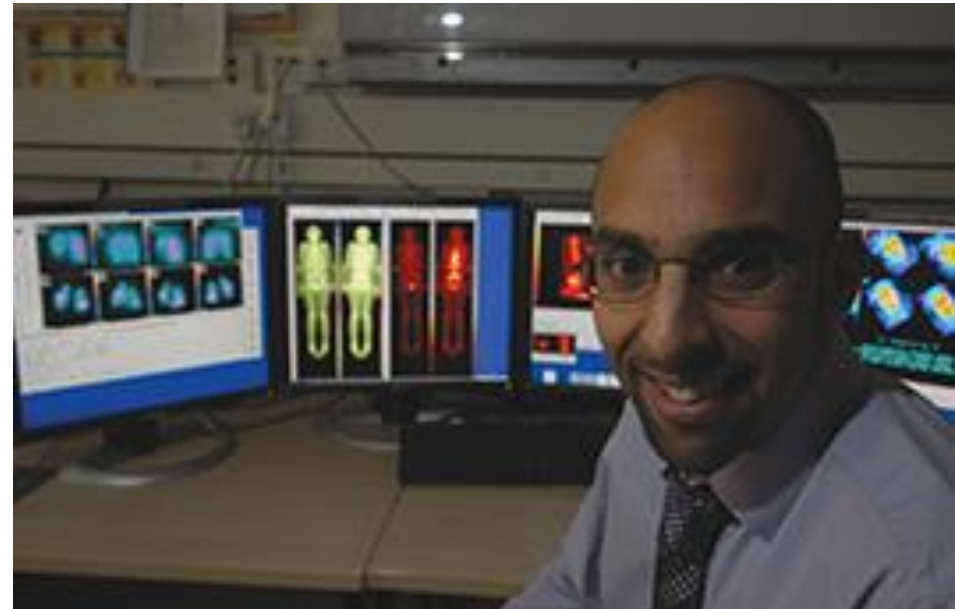
James Freed

Deputy Director of the Digital Academy for
Health and Care - NHS England

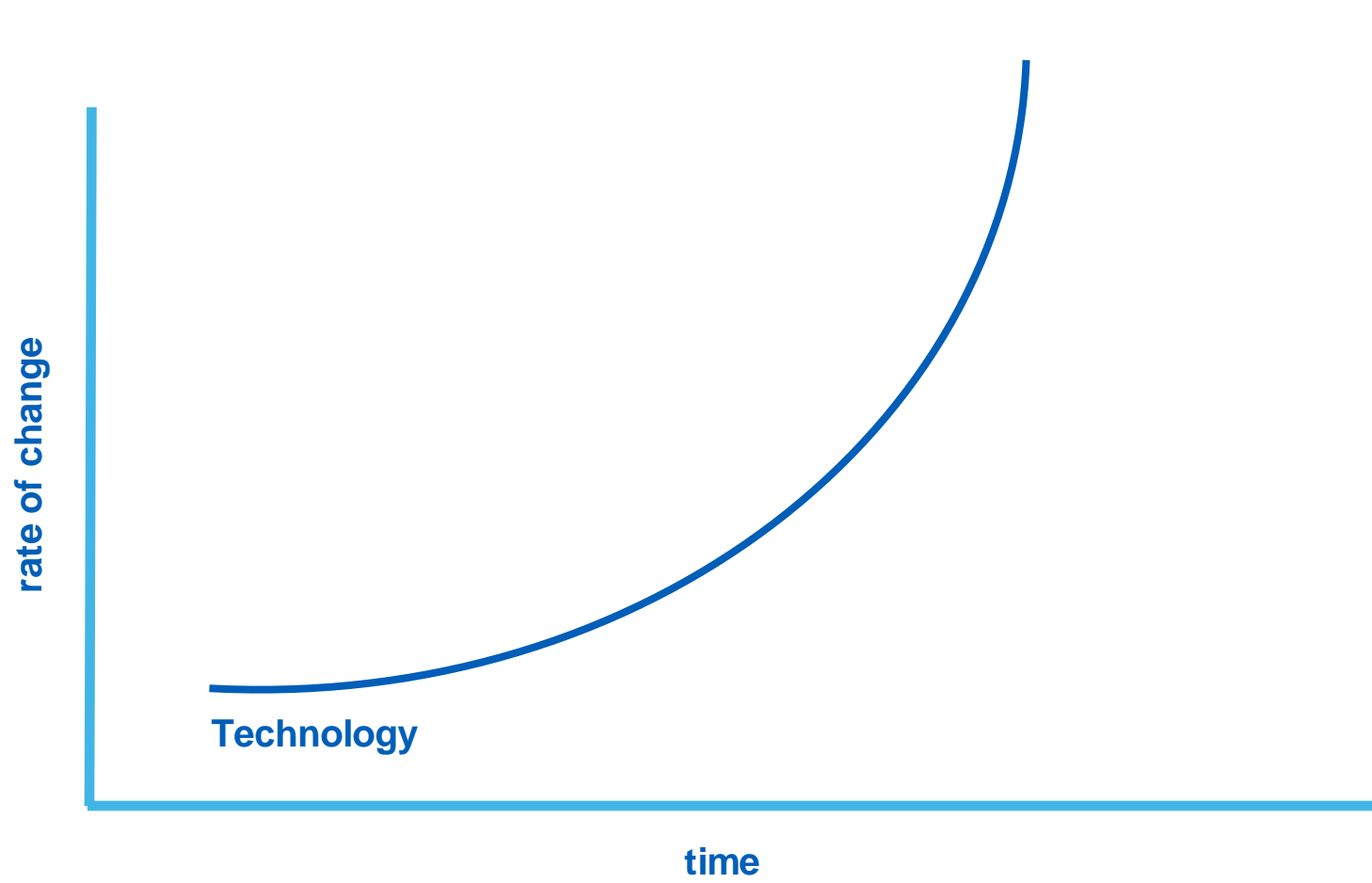


**NHS HOSPITAL IT
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Digital Innovation – Creating an Organisation that Gets It Right



James Freed
NHS Digital Academy
@jamesfreed5



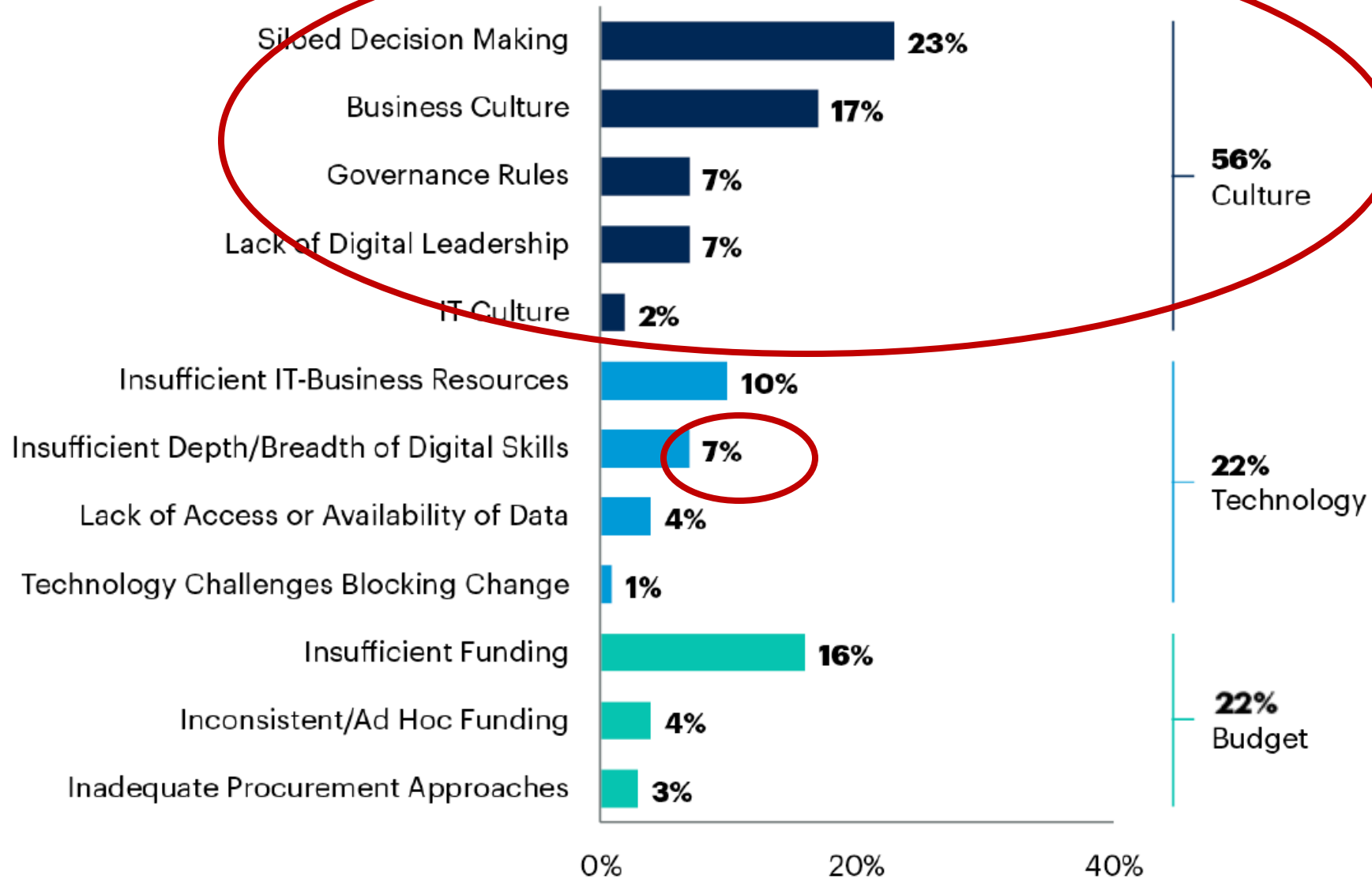
Getting more value from Digital...

Third party survey results

- Forbes – 75% did not deliver
- HBR – 70% did not deliver
- McKinsey – 66% did not deliver

Digital Transformation Challenges in Government

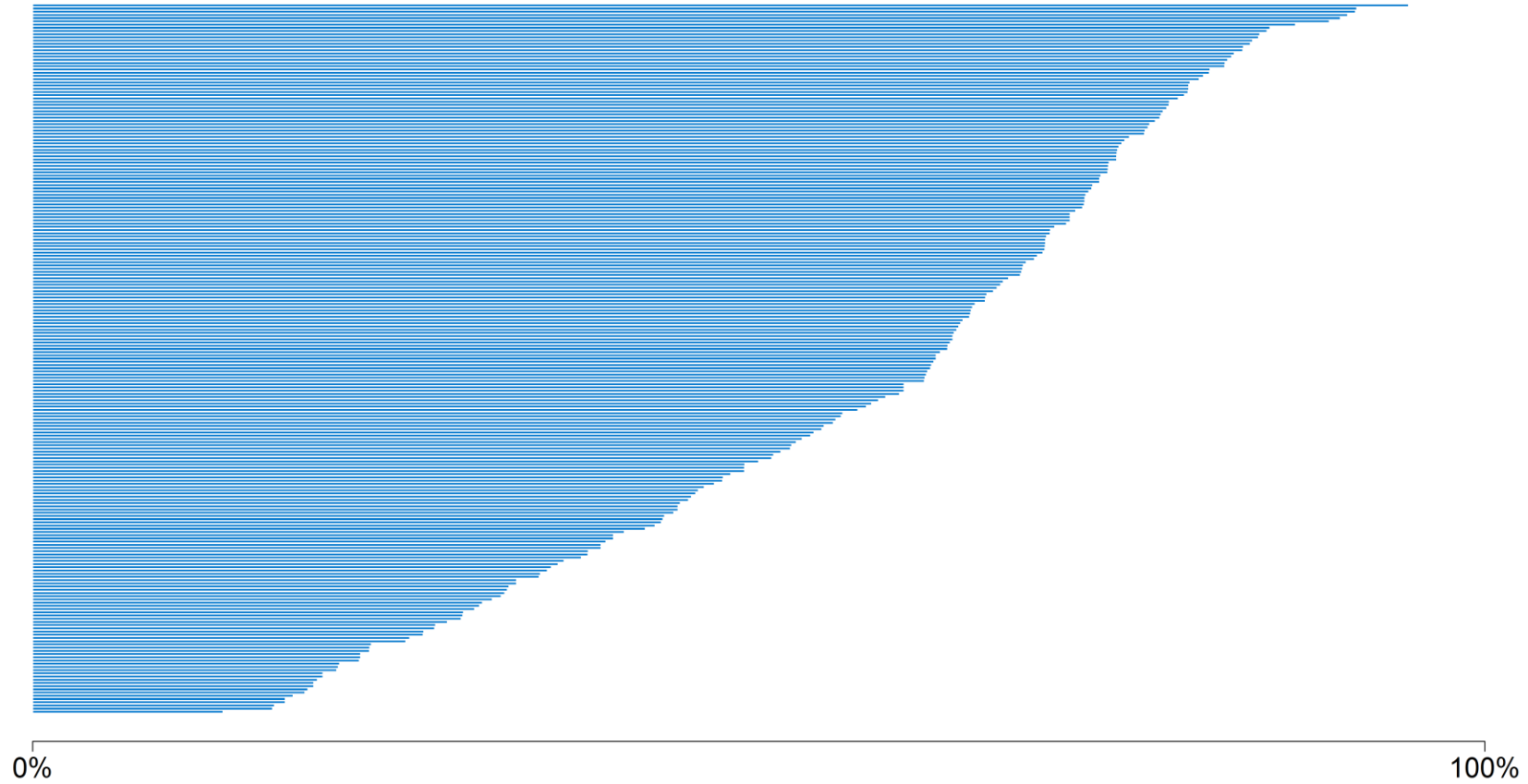
Percentage of Respondents: Rank One



n = 166 total answering

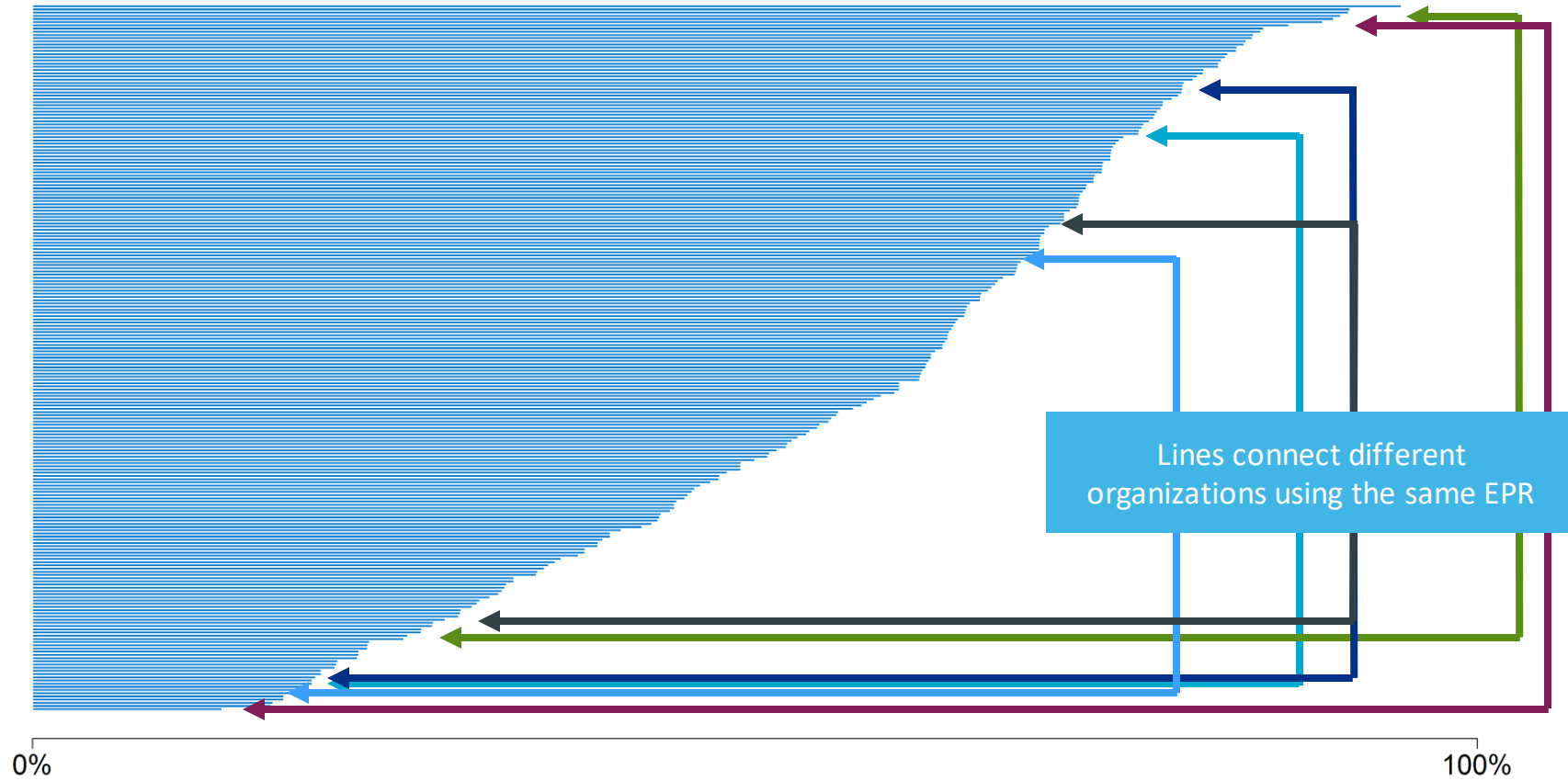
Percent of Providers Who Are Satisfied

n = 40,711 providers from 203 organizations: each bar is an EHR deployment with >20 responses



Percent of Providers Who Are Satisfied

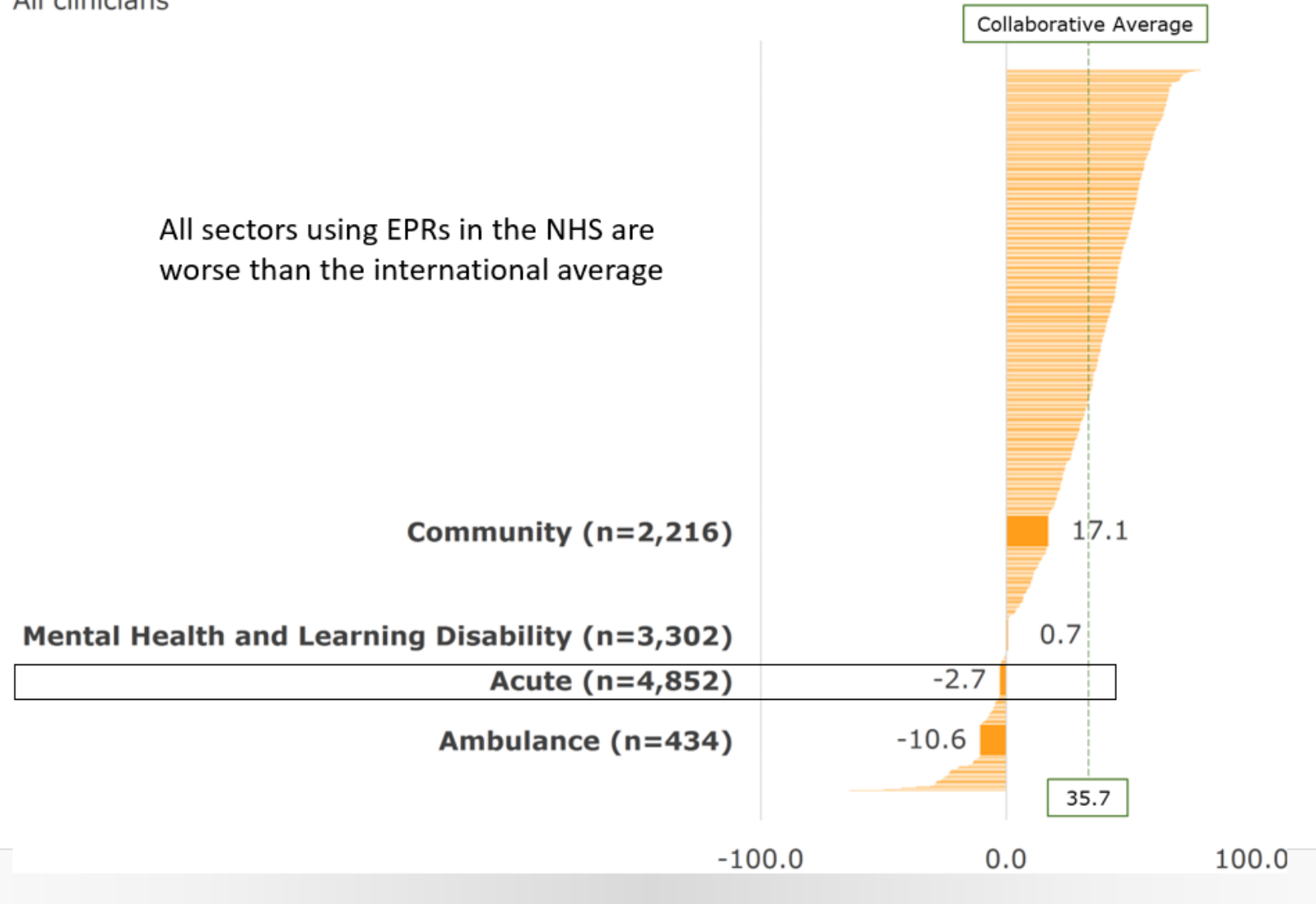
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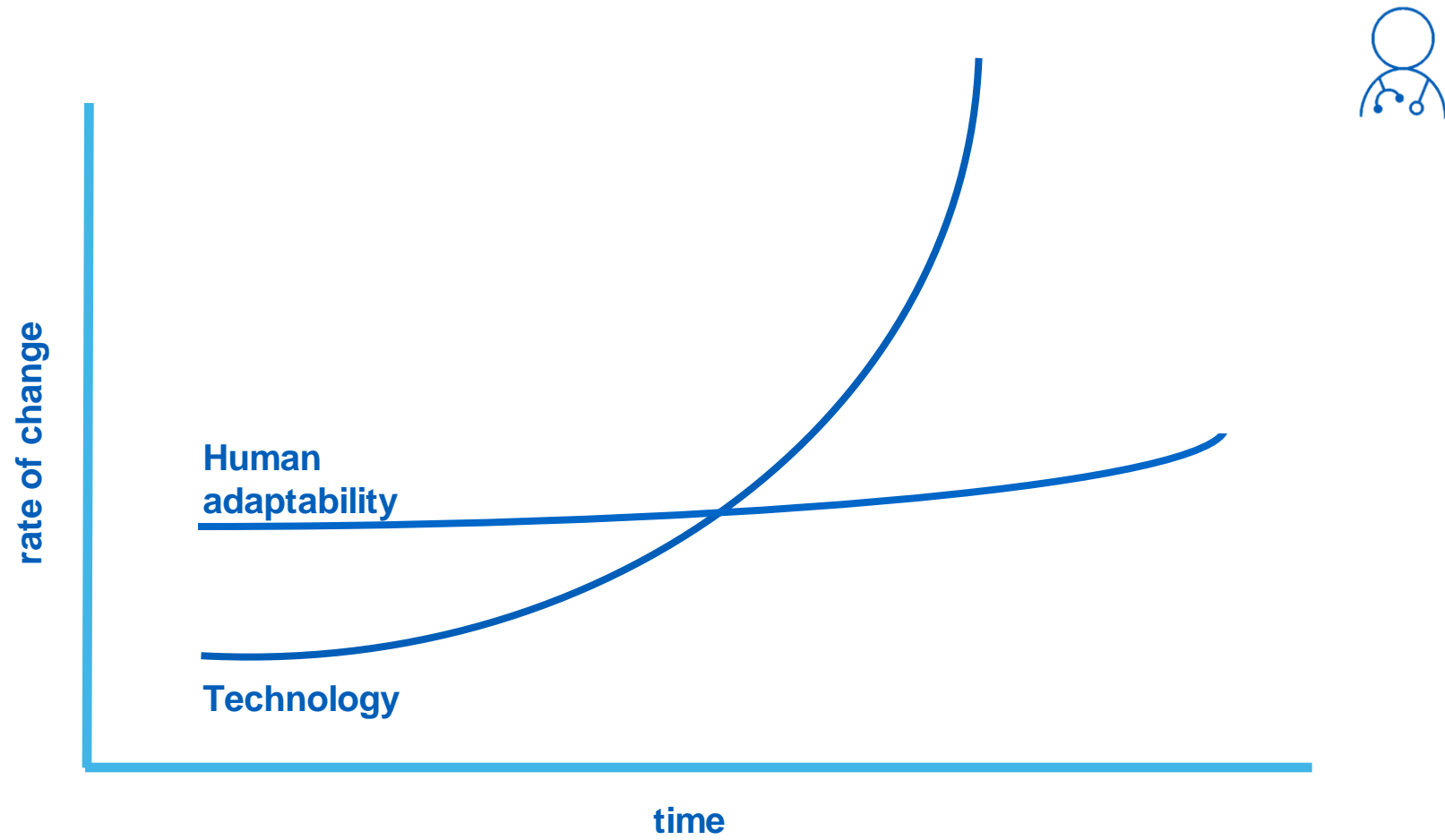


Net EPR Experience

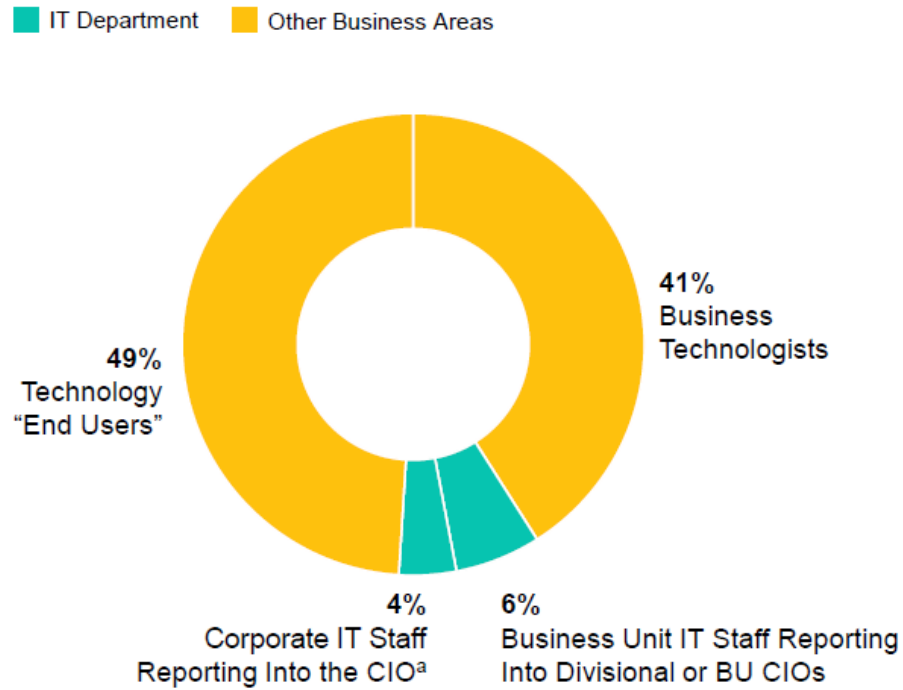
All clinicians

All sectors using EPRs in the NHS are worse than the international average





Prevalence of Business Technologists



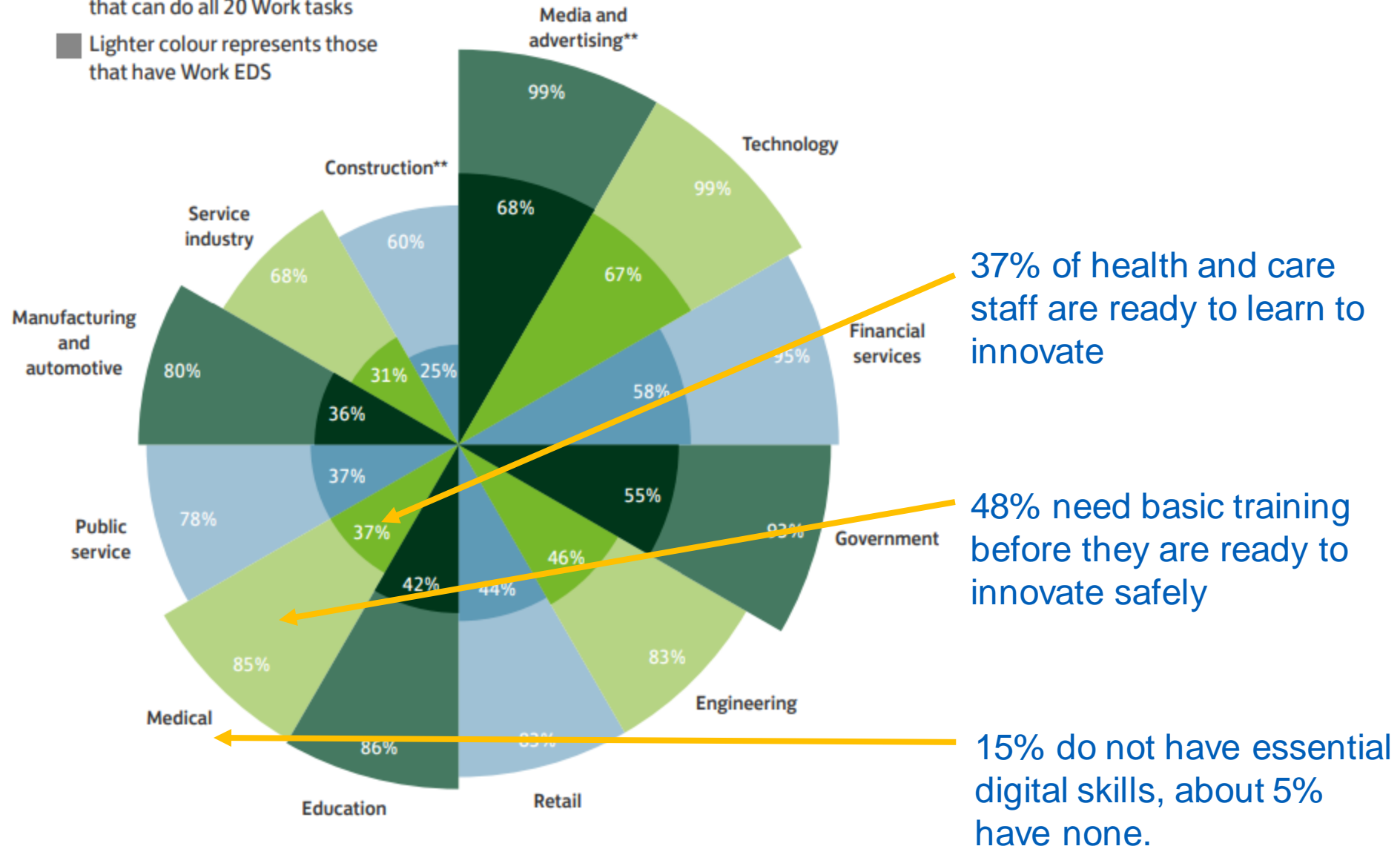
‘Digital’ is just becoming how we work

n = 11,848 employees

Source: 2020 Gartner Digital Friction Survey; 2021 Gartner Reimagining Technology Work Survey

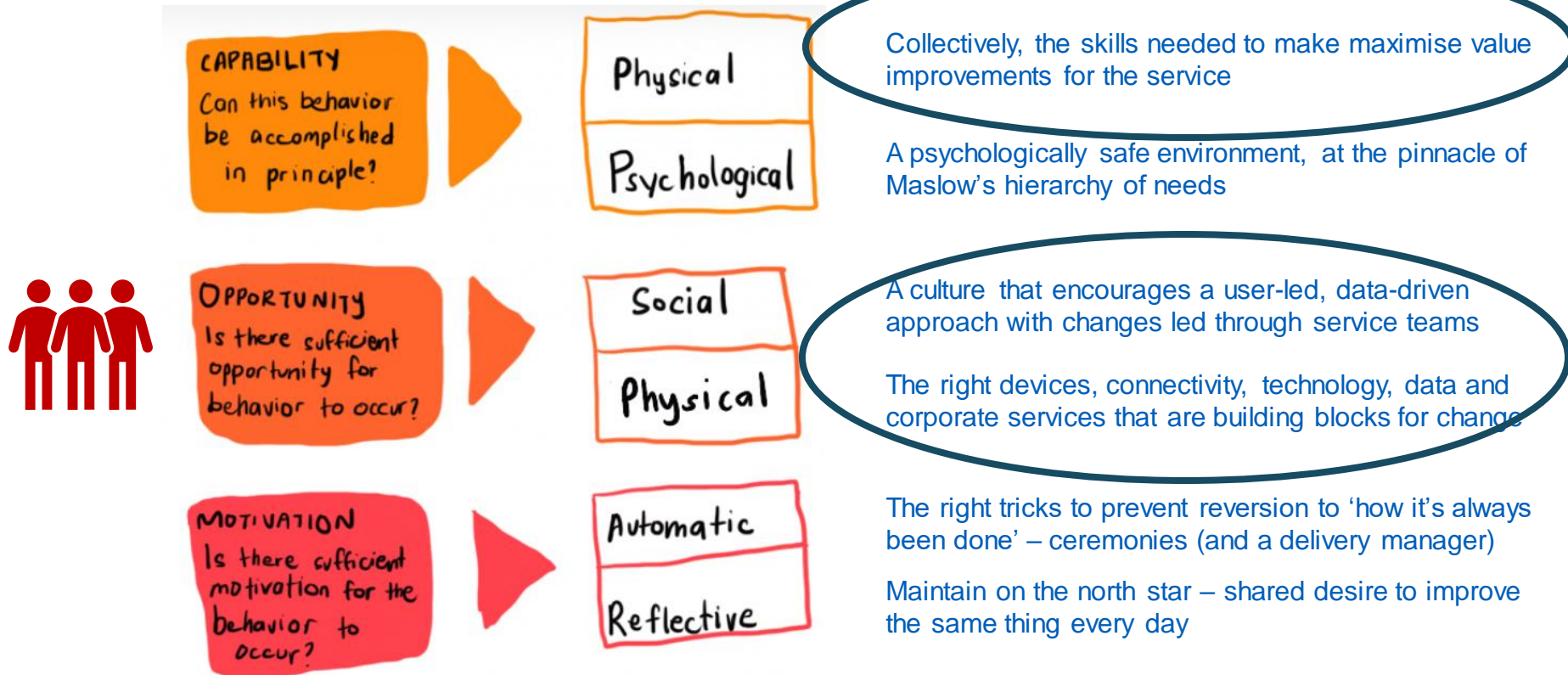
^a By CIO we mean the senior most IT executive. Titles may vary to include, Chief Digital and Information Officer, Chief Information and Digital Officer, Chief Digital Officer, Head of IT, Data & Analytics, etc.

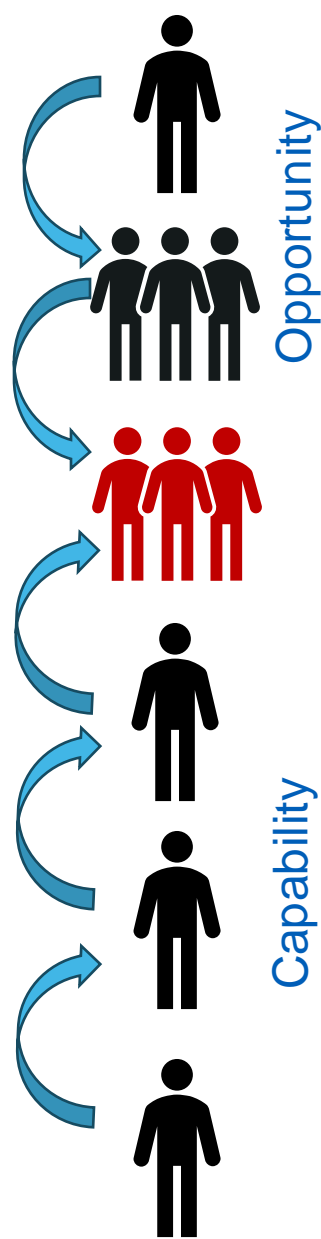
Key Darker colour represents those that can do all 20 Work tasks
 Lighter colour represents those that have Work EDS



A High Performing Team needs more...

We do (some of) the digital and data bits of these





...and leaders who create a user-led/ data-driven culture
 ...supported by user-centred and data driven **enabling functions**

Goal: the workforce are working in empowered MDTs (incl. DDaT)

37% of the workforce are ready to learn how to **deliver more value**

58% of the workforce are not fully digitally literate

5% of the workforce cannot use digital tools to learn

Digital Boards

Digital leadership training e.g. DHLP

Every member of staff recognises that they are part of a team, that is empowered and equipped to deliver more value tomorrow than they do today as fast as possible

Digital Competence education

Digital Literacy training

L&D strategy toolkit to support organisations to reach the digitally illiterate

The Digital Academy exists...

...to educate as many Health and Care **Teams** as possible to deliver more **Value** as **Quickly** as possible.

Thank you!

@NHSDigAcademy
@jamesfreed5
James.freed2@nhs.net





Speaking Now...



**NHS HOSPITAL IT
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Ben Jeeves

Associate Chief Clinical Information Officer, AHP
professional Lead, Advanced Practice Physiotherapist
- Midlands partnership NHS University Foundation
Trust



DIGITAL CLINICAL SAFETY

OUR JOURNEY AT MPFT

INTRODUCTION

- Benjamin Jeeves
- Associate Chief Clinical Information Officer
- Clinical Safety Officer
- AHP Professional Lead
- Advanced Practice MSK Physio



DCB 0129

DCB 0160

DCB

CLINICAL SAFETY ESSENTIALS

- Digital Clinical Risk Management System (CRMS)
- Clinical Risk Management File (CRMF)
- Clinical Risk Management Plan (CRMP)
 - Project specific
- Clinical Safety Case Report (CSCR)
 - Project specific
- Hazard Log (HL)
 - Project specific
- Clinical Safety isn't JUST the role of CSO
 - Includes everyone in digital AND clinical teams/ users/ services

THE LEGACY

- A Clinical Risk Management File
- An variable process
- Perhaps not initiated early enough
- Legacy systems
- Some CSOs / Register
- Demand/ capacity mis-match

THE FOCUS

- **Standardisation**
- The process
- Clinical Risk Management System (CRMS)
- Clinical Risk Management File (CRMF)
- Clinical Safety Case
 - Clinical Risk Management Plan (CRMP) (template)
 - Clinical Safety Case Report (CSCR) (template)
 - Hazard Workshop Invitation (Template)
 - Hazard Log (HL) (template)
- Capacity - CSOs

CLINICAL RISK MANAGEMENT SYSTEM

Clinical Risk Management System

Midlands Partnership University NHS Foundation Trust

Document filename: MPFT Clinical Risk Management System	
Directorate / Programme	Digital Transformation
Document Reference	V1.0
Director	Martyn Perry
Owners	Dominic Ellington, Rachel Rayner, Ben Jeeves
Authors	Dominic Ellington, Rachel Rayner, Ben Jeeves

Contents

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Governance	6
Healthcare IT Clinical Risk Management Deliverables	6
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Clinical Risk Management Plan	6
Hazard Log	7
Clinical Safety Case	7
Clinical Safety Case Report	7
Healthcare IT Clinical Risk Management Activities	7
Hazard Identification	7
Risk Assessment	8
Risk Evaluation	8
Risk Control	8
Deployment and Ongoing Maintenance	8
Incident Management	8
Clinical Safety Competence and Training	9
Overview	9
Competency	9
Training	10
Audits	10
Overview	10
Internal Safety Audits	10
Supplier Audits	10





CSO ALLOCATION PROCESS



RESOURCES



G Drive > Clinical Risk Management File > Templates

 Name	
 MPFT Clinical Risk Management Plan (CRM...	
 MPFT Hazard log template V1.2.xlsx	
 MPFTs Clinical Safety Case Report (CSCR) Te...	

TEMPLATES

Clinical Safety Case Report for *****

Midlands Partnership University NHS
Foundation Trust

Published XXXX 2023

Document filename: XXXXXXXXXXXXXXXXXXXX

Directorate / Programme: SSOT / Shropshire /
Specialist / Childrens & Families / Trust wide

Document Reference:

Chief Digital Information Officer:

Owner:

Authors:


Project:

Clinical Safety Officer:

Status:

Version:

Version issue date:

	A	B	C
1			
2			
3			
4			
5			
6			
7			
8	 Midlands Partnership NHS Foundation Trust A Keele University Teaching Trust		
9	Clinical Safety Hazard Log -		
10	Programme		
11	Sub-Prog / Project	Clinical Safety	
12	Document Record ID Key	INSERT PROJECT ID	
13	Prog. Director	INSERT PROJECT DIRECTOR	
14	Owner	INSERT PROJECT OWNER	
15	Author		
16	Status	DRAFT	
17	Version	V0.1	
18	Version Date		
19			
20	<h1>Clinical Safety Hazard Log</h1>		
21	<h2>Document Purpose</h2>		
22			
23			

CSCR TEMPLATE

Clinical Safety Case Report for *insert product /solution name*

Introduction

Purpose of the Clinical Safety Case Report and phase of lifecycle it relates to.

This Clinical Safety Case Report (CSCR) is a structured argument, supported by evidence, intended to justify that *insert system/ project name* is clinically safe and fit for purpose and, in doing so, satisfy the requirements of the Design Coordination Board (DCB) 0160 Standard.

The purpose of this report is to summarise and outline the processes undertaken and governance in place prior to the release of *insert system/ project name*.

System Definition / Overview

Description of the Health IT System; identification of Health IT System part and version number;

Description of the clinical environment it is to be used in;

Description of any existing systems it replaces or interfaces with;

Number of users and patients either in the system or will be using the system/ per annum for example

Clinical Risk Management System

Manufacturer's clinical risk management system:

Description of the manufacturer's clinical risk management system

Key personnel

Name	Role	Responsibility

MPFTs Clinical Risk Management Structure

MPFT utilises Ulysses Safeguard as the primary risk management system.

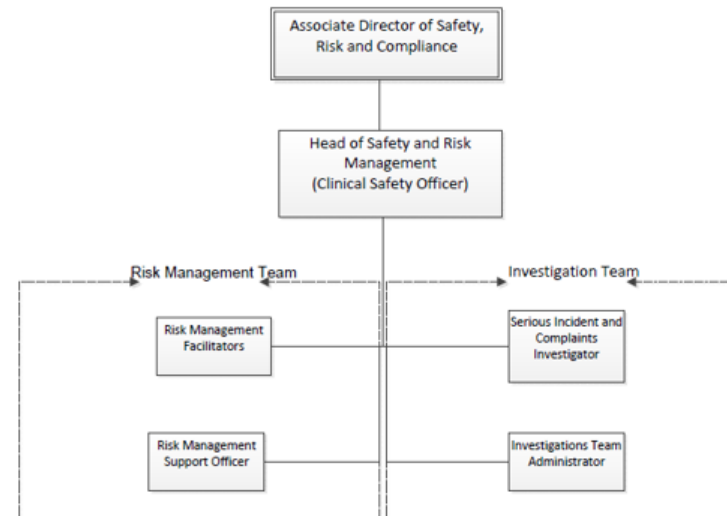


Figure X: The organisation chart provides the overview of resources and personnel involved in clinical risk management for MPFT.

During the lifecycle of a project there is a project management risk process (EXPAND)

Organogram of risk process/ risk team structure?

Roles and responsibilities for the following clinical safety related positions are defined in the appendix.

- Clinical Director for Patient Safety

CSCR TEMPLATE

Please see issues log.

Summary Safety Statement

Statement from the Clinical Safety Officer summarising the safety position of the Health IT System in the context of the intended deployment.

The hazard log [D **X**] *highlights that no hazards are considered to be “significant” or “high”*. If all mitigating factors are adhered to, then the overall risk of using *** PRODUCT/ SOLUTION *** is **low/Moderate/ High/ Extreme**. In fact, ***PRODUCT/ SOLUTION*** will likely reduce risks (such as **.....**). Mitigation controls in all likelihood adequately reduce and manage the risk to **very acceptable levels**

It is therefore concluded that provided the controls identified in the hazard log are implemented prior to the date of deployment, the introduction of *** PRODUCT/ SOLUTION *** *introduces an overall low and manageable clinical risk, and in fact reduces some risks by virtue of improving current practice in certain areas.*

Therefore this paper recommends deployment of **** into *services/ trust wide/ care group/ pilot circumstances***.



AUTOMATE

请在此处填写实验目的、原理或步骤。

序号	日期	时间	地点	天气	风速	风向	温度	湿度	气压	能见度	云量	其他
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

请在此处填写实验结果、结论或讨论。

CLINICAL SAFETY BENEFITS REALISATION

- Policy creation/ changes
- System design
- Drive innovation
- Drive collaboration
- Accountability
- Defined roles and responsibilities
- Driving interest
- Career opportunity



CSO RECRUITMENT



CLINICAL SAFETY TRAINING

- NHSE online training (intermediate)
 - [Digital Clinical Safety training - NHS Digital](#)
 - [NHSE elfh Hub \(e-lfh.org.uk\)](http://e-lfh.org.uk)
- Other clinical safety training providers are available





CSO RECRUITMENT



- **CRM will be the hub for clinical safety activity**
- **It will become the CRMF**

The screenshot displays a web-based CRM dashboard. At the top, a blue navigation bar contains a hamburger menu icon, the text "Digital Systems", a search bar with a magnifying glass icon and the word "Search", a gear icon for settings, a question mark icon for help, and a user profile section with the text "Welcome, Ben Jeeves" and a circular profile picture. Below the navigation bar, the main content area features a left-hand sidebar with icons for "My Portal", "Add Info", "Reporting", "Manage Contacts", "Files", "Filter", and "Sort". The central panel is titled "Customer Relationship Management" and includes the "MPFT DIGITAL" logo. It shows two data filters: "Systems - (141)" and "Suppliers - (114)", along with a toggle switch labeled "Internal Included" which is currently turned on. On the right side of the main content area, there is a vertical panel with two circular arrow icons pointing to the right, suggesting a list or navigation of items.

CLINICAL SAFETY TAKE AWAYS



Define your
processes



Reduce your
burden



Sell it with
passion



Share the passion

THANK YOU



ben.jeeves@mpft.nhs.uk



[@BJEEVES](https://twitter.com/BJEEVES)



[Ben Jeeves](#)



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Up next...





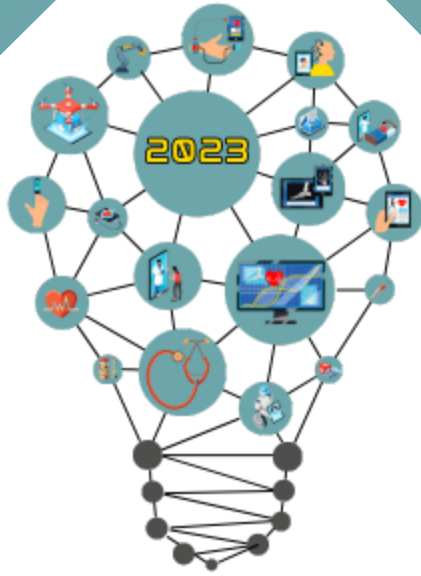
Speaking Now...



Simon Townsend
Field CTO - IGEL



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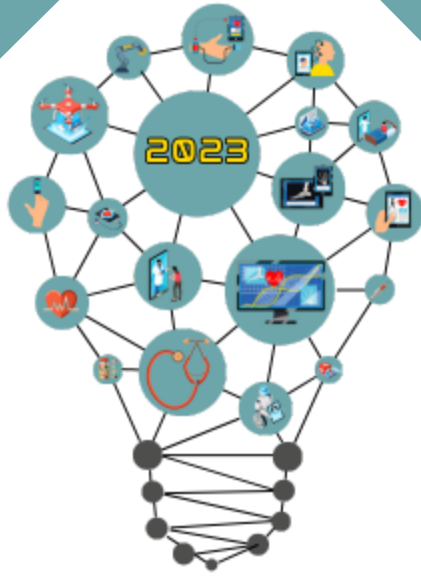


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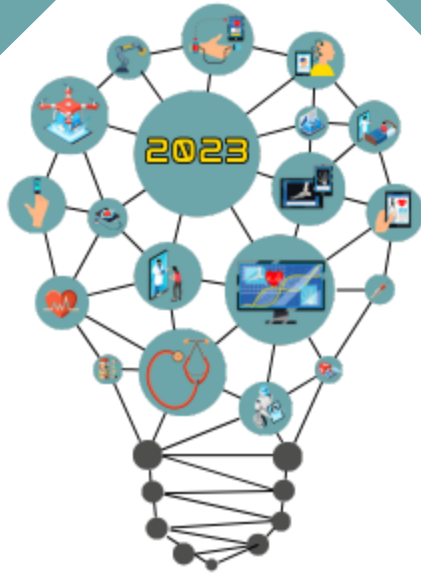
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Q&A Panel



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Morning Break



Chairs Morning Reflection

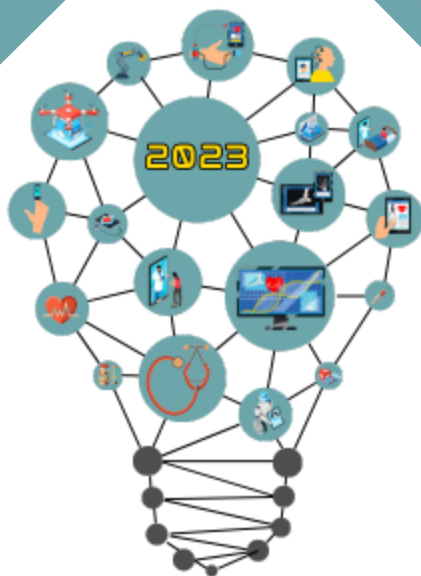


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Dr Gurnak Singh Dosanjh

GP and ICB Clinical Lead for Home First -
Leicester, Leicestershire and Rutland ICB



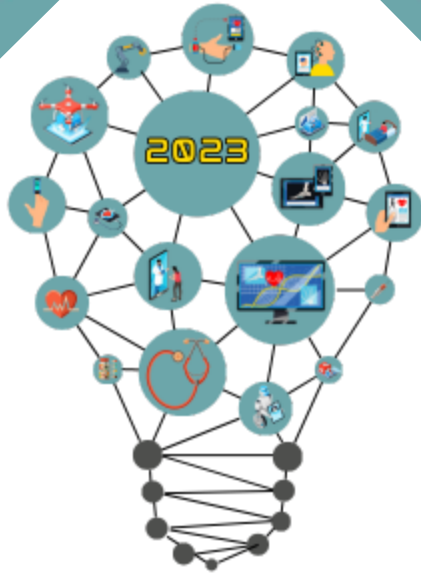
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Up next...





Speaking Now...



**NHS HOSPITAL IT
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Michael Moore
Technology Solutions
Lead - The Bridge



Jen Hyslop
Recruitment - The
Bridge

the bridge.

NHS

NHS HOSPITAL IT CONFERENCE - 1ST NOVEMBER 2023

**Leading the way to a
bright tech future.**



HELLO

Welcome to The Bridge.

1. Who are we?
2. Why are we here?
3. Who do we deliver to?
4. What do we deliver?
5. Care Quality Commission – Case Study
6. Lalit Suryawanshi – CTO ITECHOhealth
7. What can you do?



Who are we?

WHO WE ARE

The Bridge expertise.

We partner with you through the full project lifecycle, helping you build and transform your teams, brand and business.



At The Bridge we know that our responsibility is to deliver more than 'just' recruitment. That's why we've developed a full suite of services, ensuring that we can meet all our client's hiring needs.

- UK wide IT recruitment agency and consultancy
- Offering permanent and interim resource solutions
- 20 years' experience
- Delivering Statement of Work solutions (SOW) to AstraZeneca, Lancashire Constabulary & British Business Bank
- We are on Public Sector Procurement frameworks such as Crown Commercial Services (CCS), G-Cloud and PSR
- A proud member of the Morson Group family



Why are we here?

A healthcare professional, likely a nurse or doctor, wearing blue scrubs, a blue surgical mask, and a stethoscope around their neck. They are looking down at a tablet device they are holding in their hands. The background is a plain, light-colored wall.

WHO WE ARE

Why are we here?

- We want to **help and guide the NHS** attract top talent to their trusts throughout the UK
- We want to **offer our expertise in IT recruitment** to help the NHS with their own recruitment process
- We want to be able to give the NHS industry **best practices and market intel** to keep them in line with the current market standards
- **Advice from other industry sectors** that we are partnered with that have had **challenges in recruiting**
- We work with smaller Trusts and have contractors at NHS via third parties, giving us first hand experience in **understanding your technical pain points** (legacy systems, system integration, remote patient monitoring, EPR and ERP systems, digital & data transformation, cyber security)

A dark, grayscale background image of a building facade with a rainbow arching over the NHS logo. The rainbow is multi-colored and spans across the width of the image. The NHS logo is centered below the rainbow. The text 'Who do we deliver to?' is overlaid on the left side of the image.

Who do we deliver to?

NHS

CLIENTS WHO TRUST US

Working with some
of the biggest and
brightest.



What do we deliver?

WHY WE'RE HERE

We are pathfinders.

Empowering the tech community through hiring that makes an impact, today & tomorrow.

Our delivery model.

- Collaborative partnership approach
- In-depth business understanding
- Expert, tailored solutions
- Versatile delivery (permanent/FTC, contract, SOW)
- Public and private sector expertise
- Diverse client base (start-ups to FTSE 100)
- Delivery across six key verticals
- Consistent exceptional results

Our verticals.

CHANGE &
TRANSFORMATION

DATA & AI

INFOSEC & CYBER

INFRASTRUCTURE, SERVICE &
CLOUD

IT ARCHITECTURE

SOFTWARE ENGINEERING



Care Quality Commission

Case Study

CareQuality
Commission

Case study.

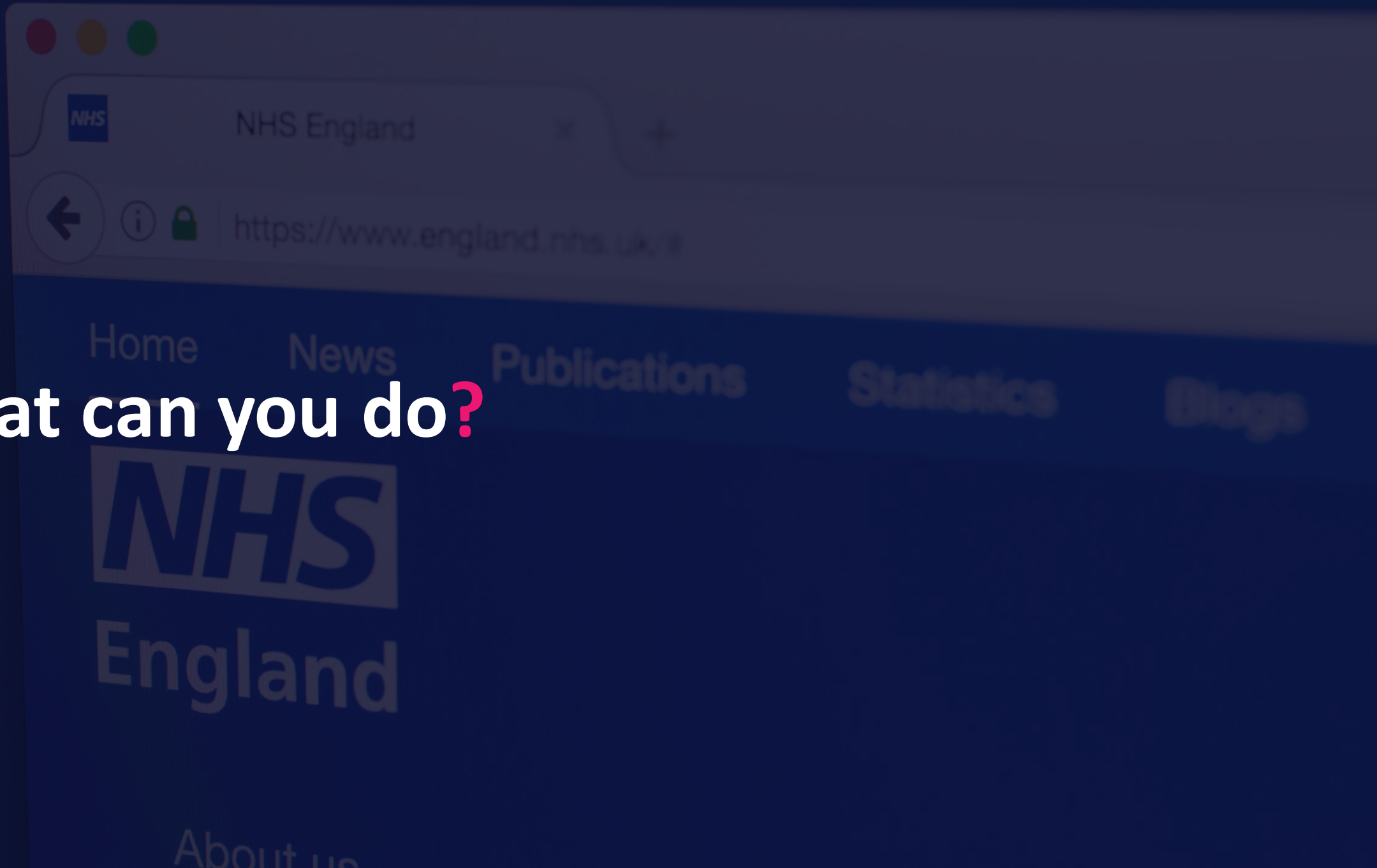
Challenges:

- Months of failed IT and DevOps recruitment
- Non-competitive NHS banding salaries
- Ineffective NHS job boards and recruitment partners
- Lack of a compelling Employee Value Proposition (EVP)
- Fragmented recruitment process

Solution:

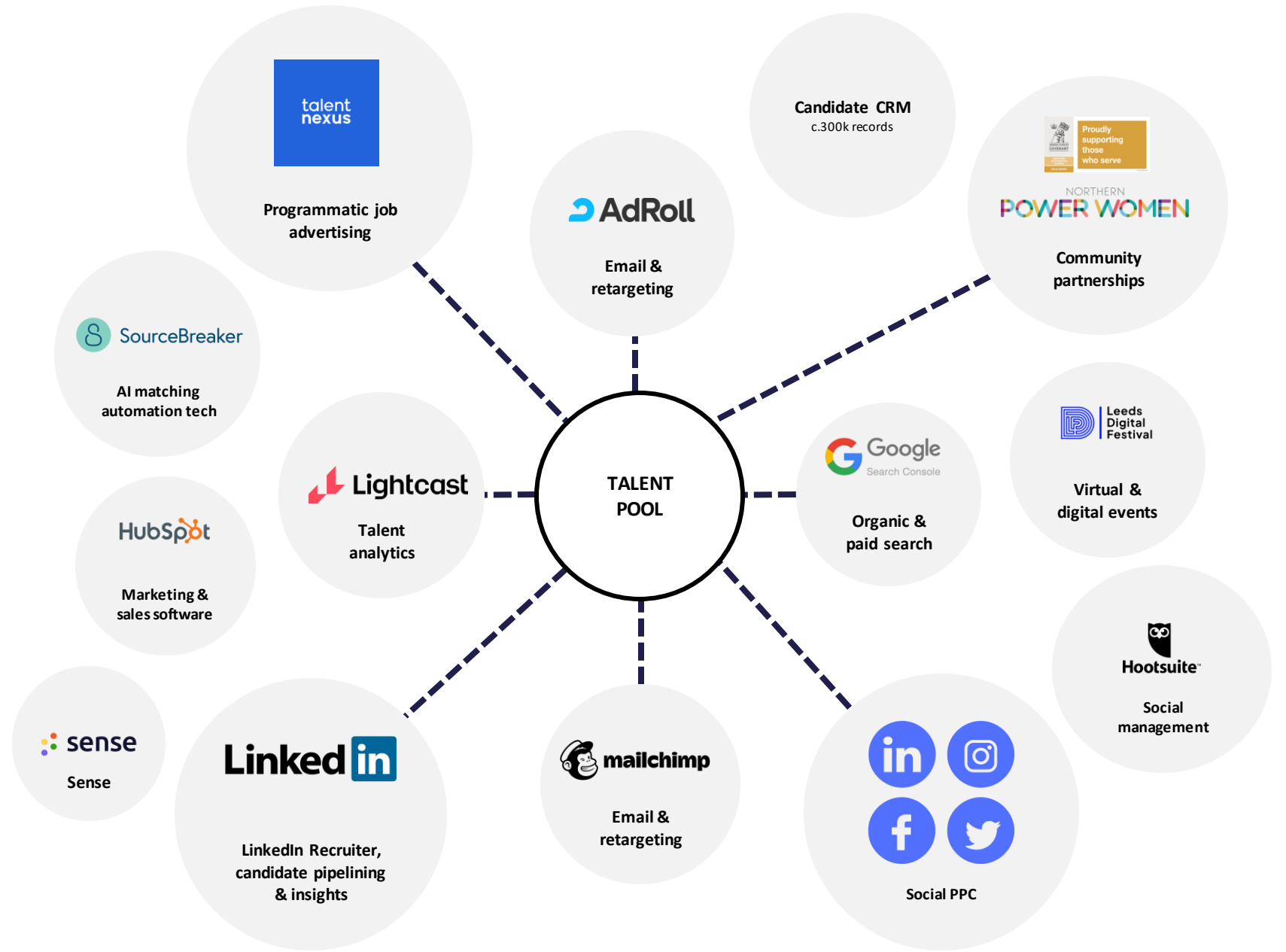
- Analysed recruitment challenges
- Prioritised candidates motivated by 'Tech for Good'
- Leveraged our network to connect with quality candidates
- Shared successful Employee Value Proposition (EVP) examples for attraction
- Streamlined interview processes and pre-screening
- Discussed Visa sponsorship for wider talent pool
- Implemented a full-remote model for UK-wide talent access

What can you do?



MARKET EXPERTISE

Candidate attraction.



MARKET EXPERTISE

Brand visibility in the right places.

Positioning your brand in the tech space in front of wide but relevant audiences through an inclusion first events, media and partnership approach.



Be conspicuous: targeted events

- Conferences
- Hosting local events & Meetups
- Sponsorships

Secure: press opportunities

- Mainstream media coverage
- Keynote speaking and panellist opportunities
- Dedicated, proactive PR team

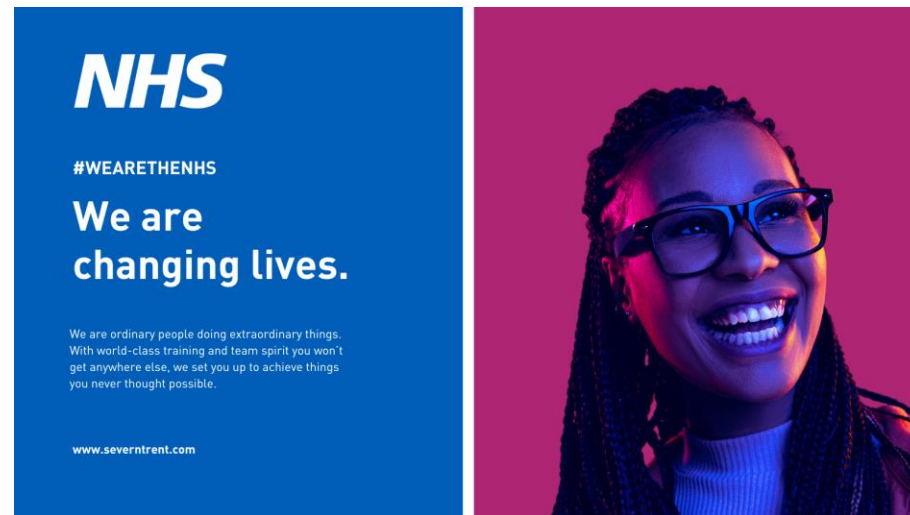
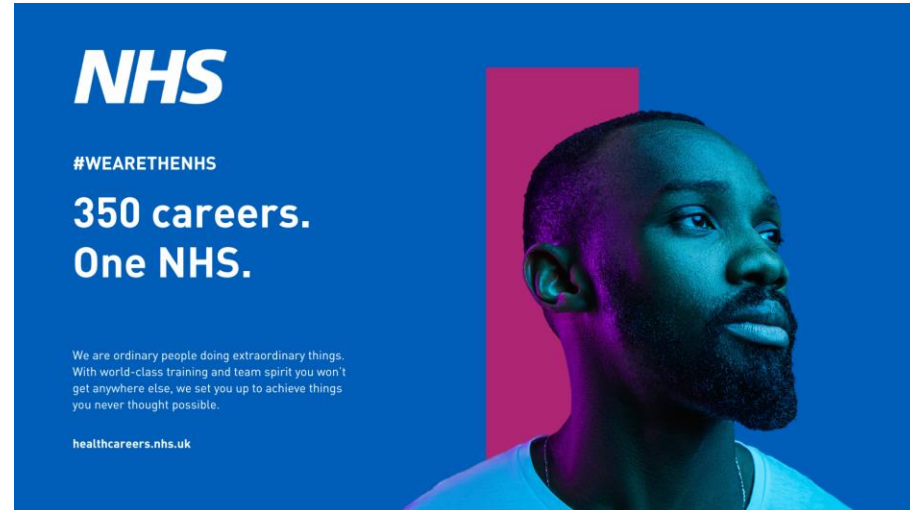
Connect: Strategic partnerships

- Morson Forces
- The Girls' Network
- IntoUniversity
- **The PowerUp Collective** nationwide programme of networking and mentorship aimed at women and girls

MARKET EXPERTISE

The power of storytelling.

Authentic people stories are powerful – **let's leverage this.**



Create an **engaging and authentic content series** focussed on highlighting stories of employees from a **diversity of backgrounds and experiences at the NHS.**

This multi-media content can be used at all touchpoints in the candidate attraction journey from podcasts used on social media and web pages to static social graphics and video for LinkedIn Pipeline Builder landing pages.

Each piece of content should be designed to bring your brand, company and people to life and position the NHS as an aspirational place to work.



itecho health

GUEST SPEAKER

Lalit Suryawanshi CTO

ITECHO Health

Event hosts to
insert Slide-O
QR Code

the bridge.

THANK YOU

**Visit our stand for practical
advice.**

We are proud of our NHS #OurHeroes



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Speaking Now...



**NHS HOSPITAL IT
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Dr Anna Barnes
Director King's College
Technology Evaluation
Centre, Hon. Consultant
Clinical Scientist, Guy's
and St Thomas' NHS
Foundation Trust -
King's College London



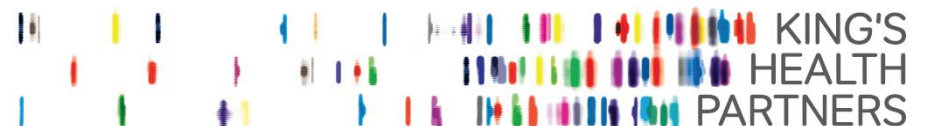
**Dr Angela Kehagia, MD
PhD**
Deputy Director, Senior
Health Technology
Assessor and Clinical
Expert - King's College
London

Systems thinking for system-wide transformation using HTA frameworks

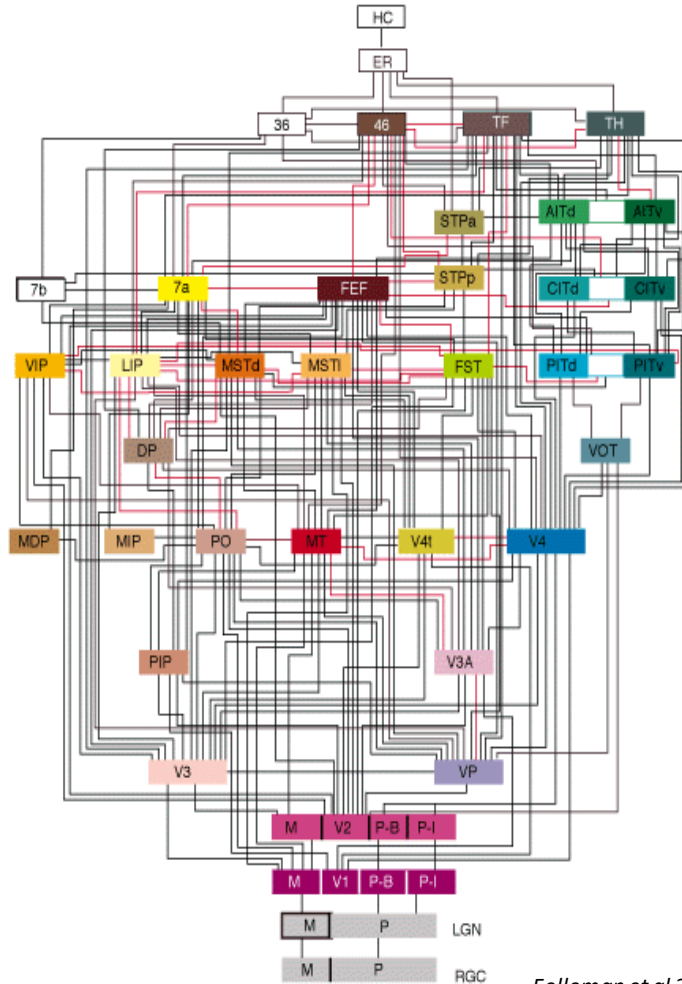
Dr Angie Kehagia, MD PhD
Deputy Director and Senior HTA

King's Technology Evaluation Centre (KiTEC)

angela.kehagia@kcl.ac.uk



Engineering better care: a systems approach



Felleman et al 2004

Combined behaviour of most processes in healthcare systems is **complex** or **chaotic**.

- Distinct and often self-contained
- Connected and integrated, in layers or a network

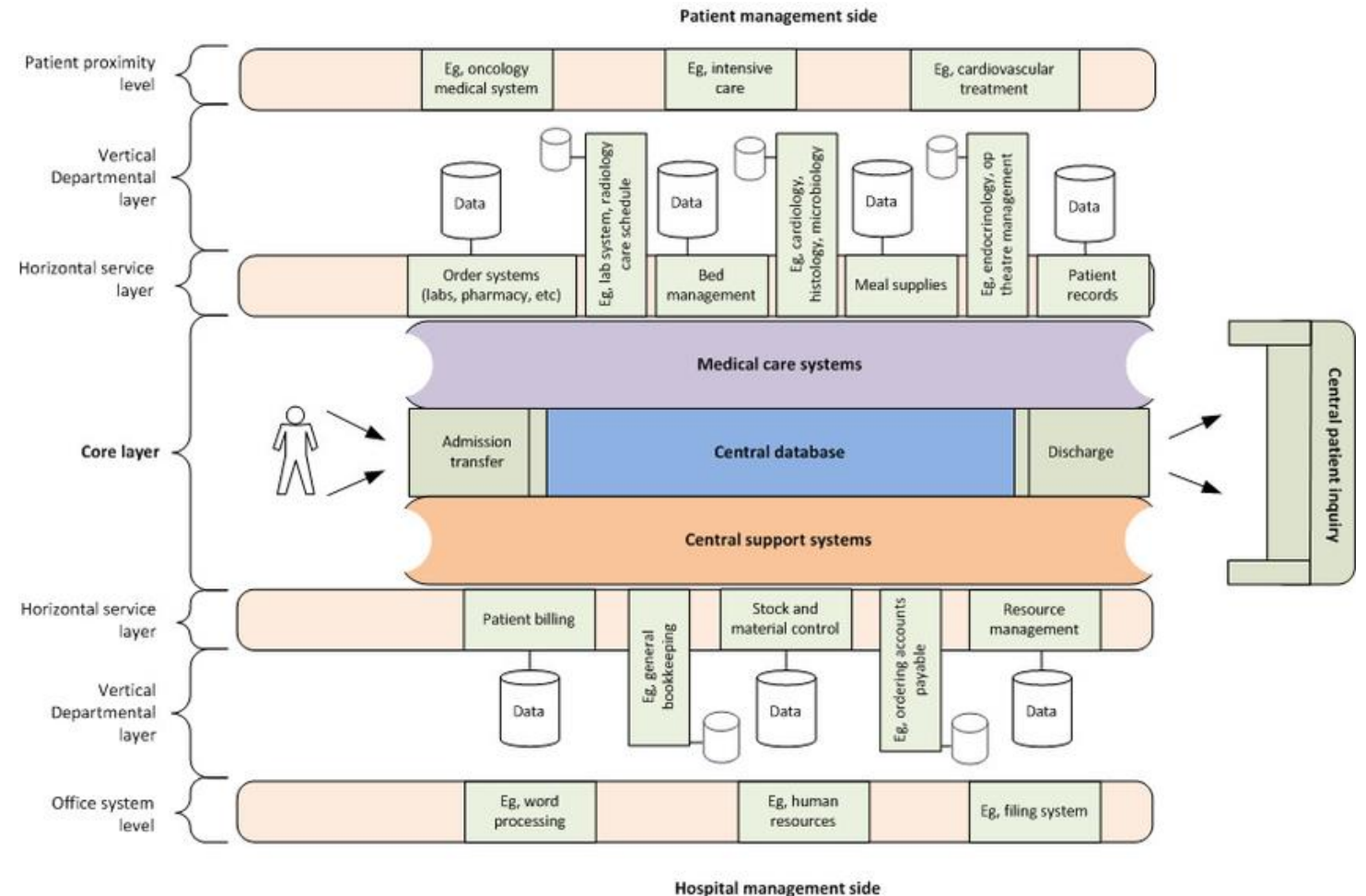
Factor in uncertainty or variation

- patient population accessing the system
- medical conditions
- timing and choices they exercise over their care

Emergence: system properties and behaviours meaningful only when attributed to the **whole**, not to individual elements

A systems approach to system-wide transformation

- Architecture defined by local, regional or national organisational boundaries; geographical boundaries; technical disciplines; illness context
- Set of complex needs → validated, effective operational systems
- Method in its own right
- Tools to answer a series of questions in an iterative and systematic way to guide understanding and transformation



MedTech in the service of transformation

Is it worth it

Does it make a difference?

How does it work?

TECHNICAL

ACCURACY TIME

PRECISION SAFETY

CLINICAL

FIT WITH SITE

EFFECTIVENESS

SENSITIVITY

SPECIFICITY

How much does it cost?

ECONOMIC

IMPROVEMENT

SUSTAINABILITY

What is HTA

- systematic multidisciplinary evaluation of health technologies and their impacts on healthcare systems, societies, patients.
- informs decision-making to promote equitable, efficient and high quality healthcare: comprehensive form of research that examines global consequences of application or use of technology

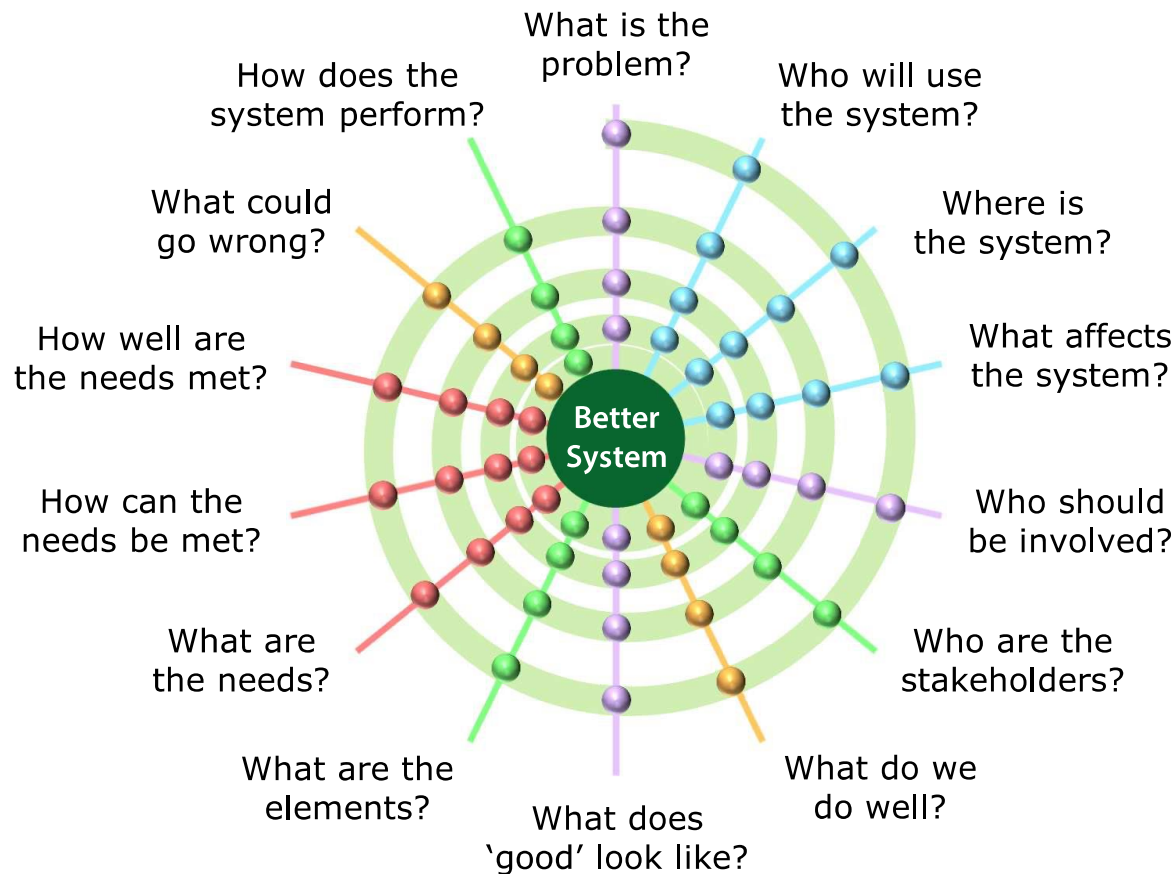
Evidence generation and synthesis

- safety
- clinical efficacy
- cost-effectiveness
- social, ethical and legal aspects of health technologies

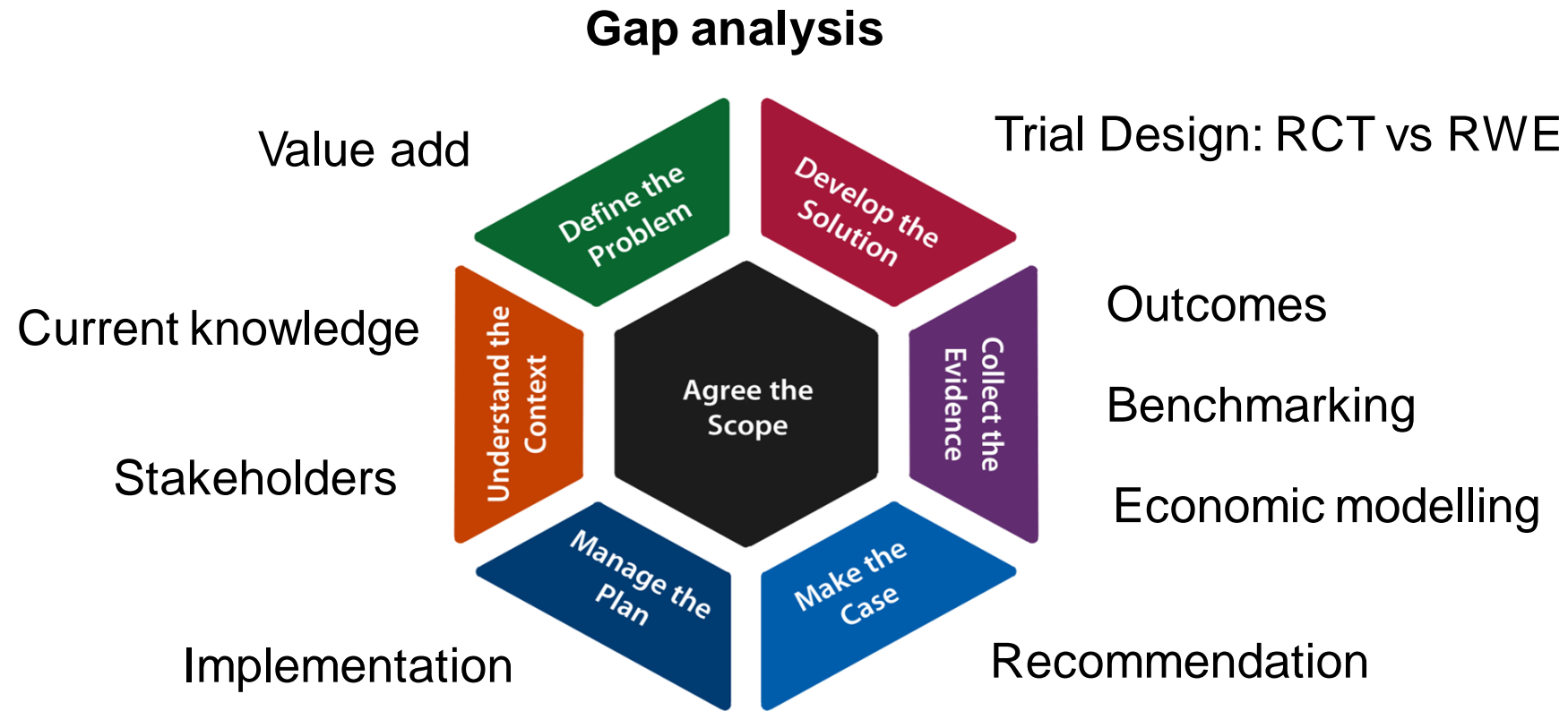
Value → Guidance

HTA: a systems approach

- Solution: overcomes complexity and delivers at all scales regardless of the form of the system
- Value: recognised and increasingly referred to in national policies and used in improvement methods
- Has the intervention made the system measurably better?

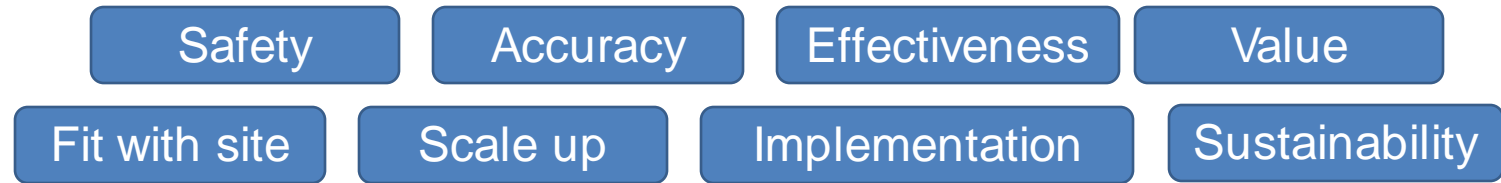


HTA: a systems approach



www.iitoolkit.com

HTAs



- Identify users and **stakeholders**; characterise influence or role
- Summarise the **current knowledge** about technology and agree evaluation scope
- Identify the outcomes that could define **value added** by technology and **clinical gap** met by using this technology
- Define how **data** will be collected and used to **benchmark** technology against **improvement** outputs identified
- Develop appropriate **trial design** to capture the **outcomes** that will benchmark improvements
- Develop a schedule operational plan to **implement** above

HTA: a systems approach

- Local service-led trigger: initial ideas + rudimentary risk assessment before full cycle of questions
- National policy-led trigger: swift question cycle until design need recognised before full cycle begins

Aligns technology, processes, interactions and policy to deliver innovative responses to complex and pressing challenges



Can be applied to service level improvement with a new medical device

Implementation within a wider context that subsequently dictates changes within and across systems

International consensus

First quoted 30 years ago by **WHO** and two regional offices (EURO and AMRO)

HTA to strengthen evidence-based selection and rational use of health tech to increase efficiency when introducing and using it in healthcare

To advance the implementation of Universal Health Coverage (UHC): who should receive which intervention and at what cost



International Network of Agencies for Health Technology Assessment (INAHTA)

50 HTA agencies supporting decision making affecting >1 billion people in 31 countries

HTA approach to system-wide transformation

Cochrane

‘The increase in input since the start of the NHS has not been matched by any marked increase in output in the ‘cure’ section’

Advocated for *‘marked increase in knowledge through applied medical research’*: RCTs to determine efficacy (benefits) of interventions.

Dept of Health and Human Services to *“organise applied medical research to meet the need of assessing medical research priorities and assuring that appropriate research was carried out”*

Objective, authoritative analysis of scientific and technical issues faced by NHS today



Application to system-wide transformation

HTA **transparent** and **accountable to its stakeholders** to support decision-making in healthcare at policy level with evidence about given technologies as instruments of change.

Dimensions of value

intended and unintended consequences
compared to existing alternatives

Overall value a function of

- perspective taken
- stakeholders involved
- decision context

The NHS logo, consisting of the letters 'NHS' in white, bold, sans-serif font, set against a blue rectangular background.

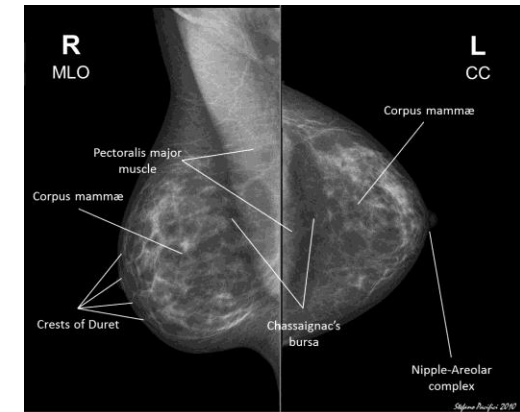
Need real-world data to generate real-world evidence

Case study 1: AI assisted mammography

- National breast screening programme and standard care
- Will AI use support equivalent or superior screening performance
- Impacts on workflows due to use of AI
- Scale deployment and maintenance to enable NHS-wide adoption

Take Homes

- Local deployment vs integration with broader networks (NBSS)
- DGH vs teaching hospitals: diverse digital infrastructure
- Bespoke solutions required for each deployment
- Cloud based technology and governance
- Consent and acceptability to patients and clinicians



Case study 1: AI assisted mammography

Ethical Issues

- Models of consent
- Human in the loop

Practical Issues

- Scan upload to AI
- Compatibility with NBSS
- Hospital IT
- Extracting data

Study design

- Real world without putting women at risk
- Not RCT
- Fits in with current workflow
- Avoids increase in arbitration rates

Statistical Design

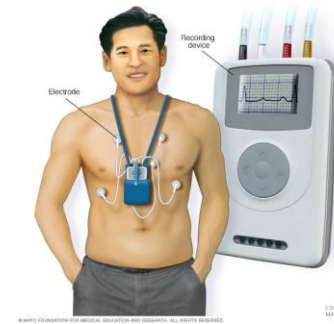
- Reader 1 and Reader 2 blind to AI
- Non-inferiority

Health Economic Modelling

- Capital cost
- Maintenance cost
- Cost per scan
- Reporting costs
- Permanent and locum
- Biopsy
- Oncology consult
- Additional imaging
- Advanced cancer treatments
- Palliative care

Case study 2: AI enabled ambulatory ECG

- Clinical contexts: arrhythmia detection in Stroke and Cardiology
- Questions: diagnostic yield, hard to teach populations, cost effectiveness
- Data accessed centrally, systems talk to each other (stroke service, main hospital information system (eg Epic))



Take Homes

- Care pathway specifics inform statistical and HE analyses
- IT and people infrastructure
- Delve into the specifics of data flow to pinpoint conditions under which new technology is cost effective – system benefits



Case study 3: remote monitoring for Parkinson's

NICE Commissioned Evidence Generation Plan

- Evidence gaps
- Stakeholder mapping
- Defining the clinical space and need



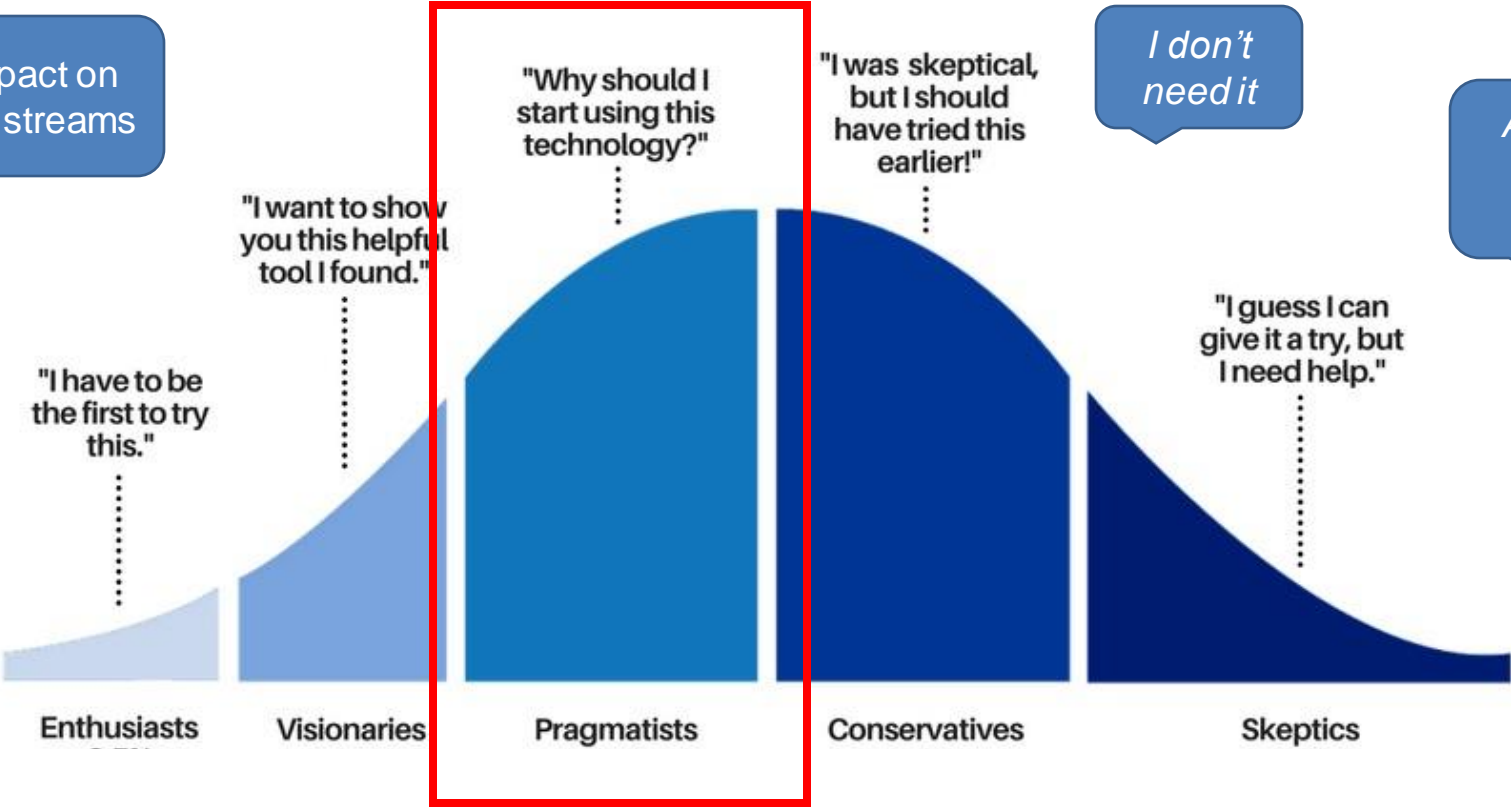
Take Homes

1. Comprehensive HE modelling needs carepartner data
2. Data challenges: volume, granularity, reliability, interoperability
3. Understanding clinical pathways, behaviours and interactions within these
4. Defining the use cases

Real-World Implementation

Consider impact on other income streams

Identify the niche



AI? we haven't even got the basics!

I don't have time



Speaking Now...



**NHS HOSPITAL IT
CONFERENCE**



Andy Williams

Interim Chief Digital Officer/Digital and Innovation
Lead/Managing Director - Harrogate and District NHS
Foundation Trust/ Leeds Teaching Hospitals NHS
Trust/ AHLC Solutions Limited



NHS Hospital IT Conference Underpinning System Wide Transformation Time to Change?

Andy Williams
Director, AHLC Solutions Ltd
Interim CDIO Harrogate & District NHS Foundation Trust
Digital Advisor for the Leeds Teaching Hospital Trust New Hospital Programme

1st November 2023

Our Company



Who we are

A digital health and social care solution agency working in collaboration and committed to supporting the adoption, implementation and spread of innovation within and across the health and care sector.

What we do



Support NHS,
Public, Private
and Supplier
Sectors



Facilitate Adoption
and Spread of UK
and International
Technologies



Collaborate
through
Partnerships and
Community



Promote
Innovation through
Engagement and
Events



[Andy Williams](#)

Founder and Executive Director

- Interim Chief Digital Officer, Harrogate NHS Foundation Trust
- Interim Chief Digital Officer, Humber and North Yorkshire ICB
- Digital Advisor for 'Building the Leeds Way', Hospitals of the Future
- Digital Strategy Advisor



[Lambros Lambrou](#)

Chief Technology Officer

- A highly motivated and accomplished TOGAF 8 certified Principal Architect
- 25 years of experience and a proven track record of delivering across multiple large-scale organisations
- Led the technical workstream of the National Pathology Imaging Programme, delivering the centralised capability to facilitate Digitisation of Pathology services across seven Acute Trusts in West Yorkshire



[Louise Sinclair](#)

Communications and Engagement Officer

- An award-winning senior marketing professional adept at translating complex organisational strategy into focused, impactful and measurable brand, marketing and communications campaigns.
- Ability to create strong and trusted relationships with natural diplomacy and people skills at all levels of stakeholders, including board level.
- Worked across numerous private and public sectors including health, technology, sport, charities, retail, B2B and financial services.



[Rachel Marshall](#)

Executive Project Officer

- Over 25 years' experience providing business and project office support to a range of industries.
- Underpins the successful and smooth running of back office functions and also delivering support for various project based activities. Services include:
 - Project Management Office support
 - Project and event management

Agenda

System Wide Challenges?

Trends over next 25 years?

Personalised Medicine

Preventative Care

New Hospitals

Digital Transformation

Innovation / Emulation

Private / Public Partnerships

Environmental Sustainability

Mental Health Focus



Leeds Teaching Hospitals



1.14 million
outpatients attendances



Over
8,500
babies born



Almost
339,000
patients attending A&E



Almost
94,000
inpatients



Over
21,000
staff



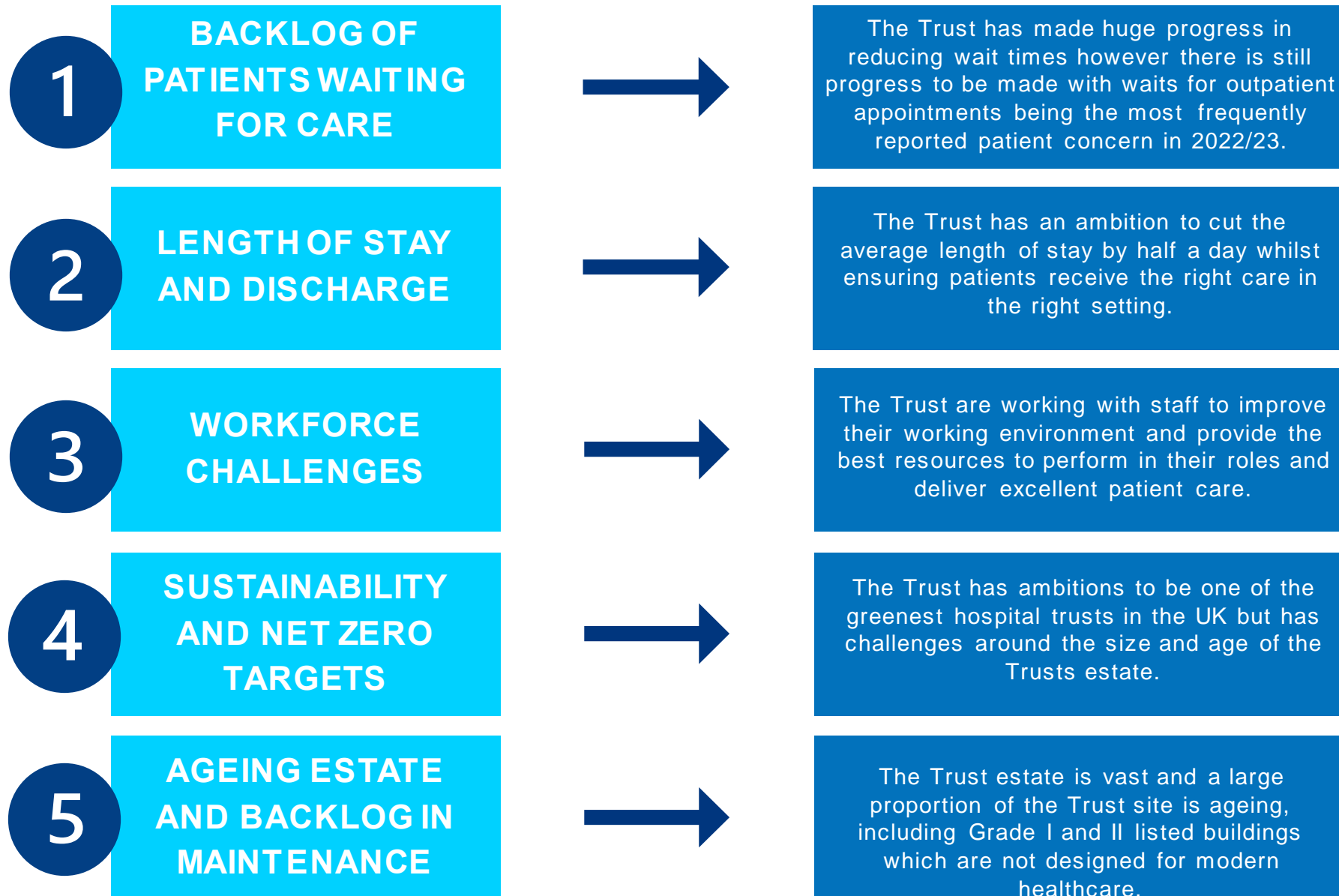
1.5 million
patients per year

7

hospitals



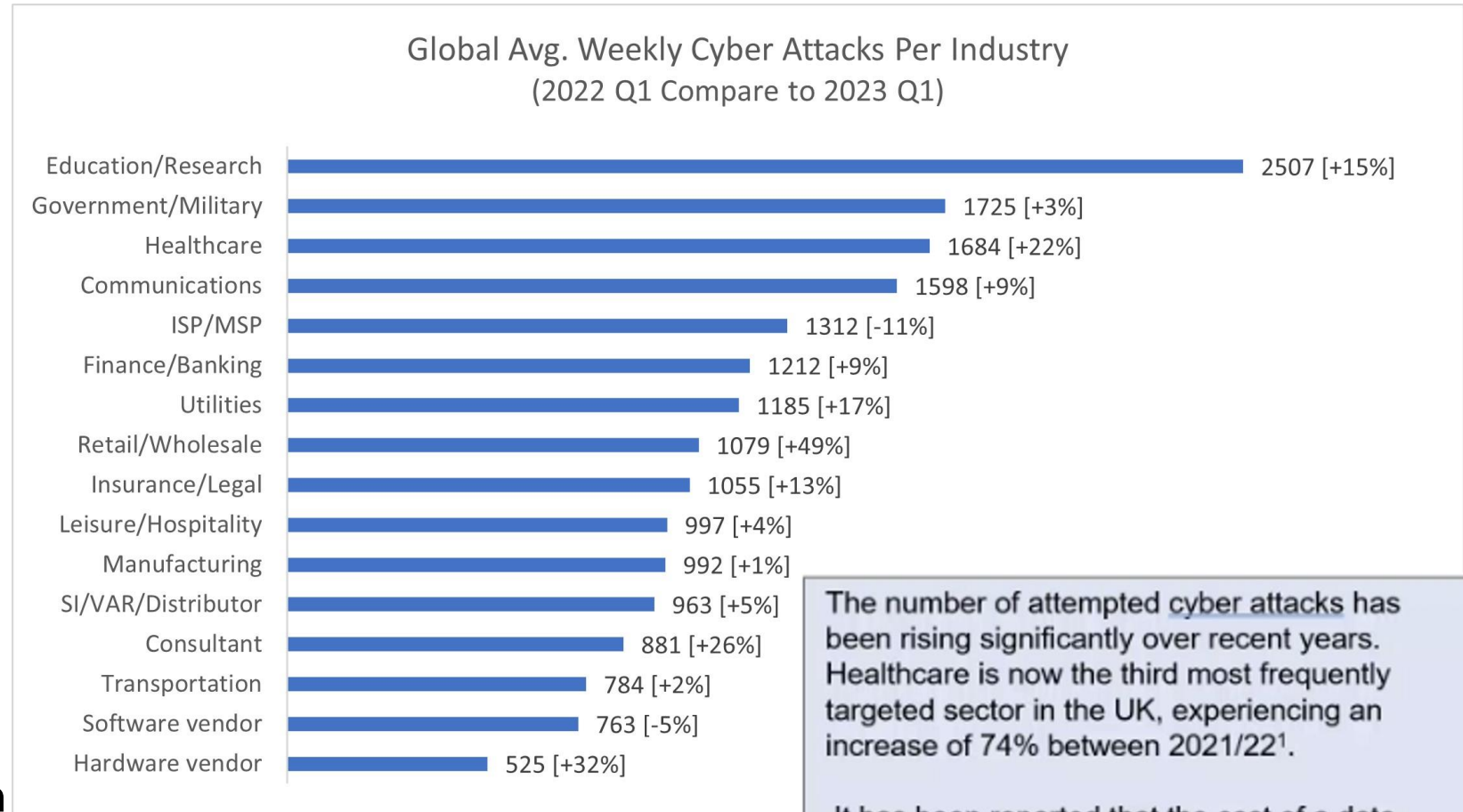
What are the Challenges?





1. Cyber Pandemic?

- In today's interconnected world, whether we realise it or not the threat of a cyber-attack happens every day to every sector.
- Health and care is no exception; in fact, it is scarily on the rise!
- Our reliance on technology and the eerie prowess of hackers has given rise to a real cyber pandemic.
- This session aims to shed light on the importance of preparing for cyber-attacks for the health and care sector and key steps to mitigate the risk.



The number of attempted cyber attacks has been rising significantly over recent years. Healthcare is now the third most frequently targeted sector in the UK, experiencing an increase of 74% between 2021/22¹.

It has been reported that the cost of a data breach in the healthcare sector has increased by 53.2% since 2020, at an average cost of £8.5 million².

The NCSC dealt with 777 incidents (2021) an increase on last year (2020) - of which 20% were linked to the health sector³.

2. The Inevitability of Cyber-Attacks:

- We are acutely aware pandemics strike unexpectedly.
- Cyber-attacks are no different. It's not a matter of if, but when.
- Only recently the BBC, British Airways and Boots were hit by a cyber breach with employee contact and bank details exposed.
- The healthcare sector, with its vast amounts of sensitive patient data and critical infrastructure, is an attractive target for the malicious actors seeking financial gain or disruptive power.

FOR HEALTHCARE LEADERS

HSJ Part of Wilmington Intelligence

BEN CLOVER
London Eye: The never-ending strike

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TECHNOLOGY AND INNOVATION

Trusts still seeking compensation a year after cyber attack

By Nick Carding, Emily Townsend | 14 August 2023

Two trusts remain in discussions with a tech firm over financial compensation a year after a cyber attack left them without access to patient records for months.



FOR HEALTHCARE LEADERS

HSJ Part of Wilmington Intelligence

HAYLEY KIRTON
Income 20 pounds, expenditure 20 pounds ought and six, result s.114

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QUALITY AND PERFORMANCE

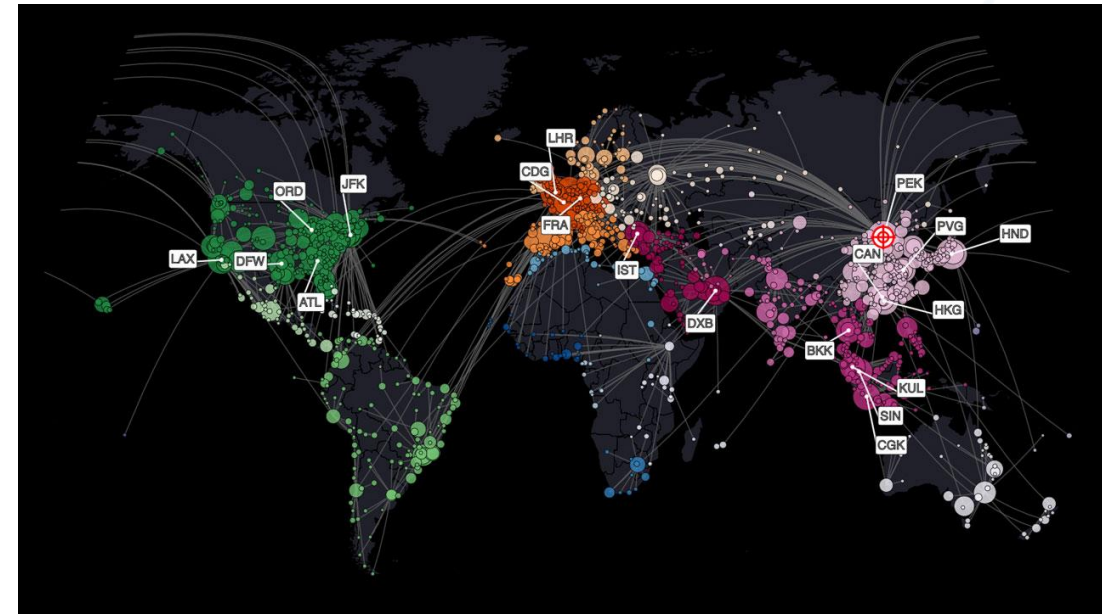
Cyber attack takes out two trusts' records access

By Alison Moore, Nick Carding | 25 July 2023

Two ambulance trusts have been left without a working electronic patient care record system for a week after a cyber attack affecting its Swedish-based supplier.



3. Learning from the Past:



- Without doubt COVID highlighted the need for effective preparation and rapid response to unexpected crises.
- Unfortunately, as revealed by the COVID-19 inquiry, the healthcare sector was ill-prepared for the challenges it faced – we are equally as unprepared for a Cyber pandemic.
- The lessons learned should serve as a wake-up call to proactively address potential cyber threats to health and care.
- Why aren't we reacting in the same way – with focus and consistent action?



England

Cyber Improvement Programme

Funding to ICS' for FY23/24

18th September 2023

Authored by:

Tim Chearman – Programme Lead



Limitations

- Capital funding with some revenue
- Technical debt is out of scope
- Focus still too much on secondary care
- Cyber skills are limited & expensive

KEY GAPS RELATED TO INCIDENTS



67%

- Logging and monitoring issues



25%

- User Training issues
- Firewall issues
- Tooling (EDR, security services, etc) issues



50%

- Configuration and Vulnerability Management issues



17%

- Asset Management issues



33%

- Issues with Multi-Factor Authentication
- Password Hygiene issues
- Joiners, Movers, Leavers Processes issues



8%

- Anti-virus issues



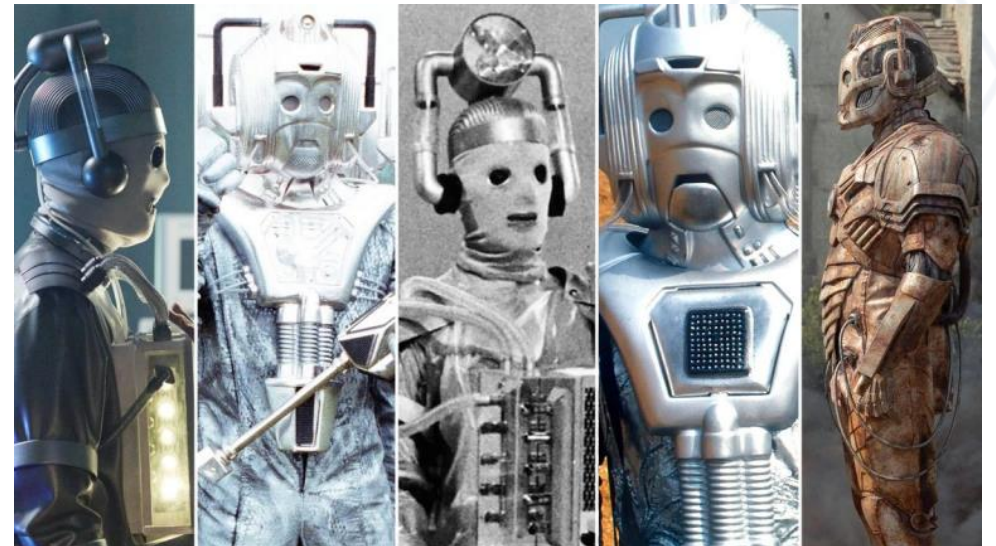
A threat-led approach to modelling cyber risk has been utilised to determine the defence measures that have the most impact on reducing the likelihood of relevant cyber threats.

4. Building Preparedness:

So, what can we do – here are 3 top tips to help prepare:

Experienced People:

- Building a skilled workforce, well-versed in cybersecurity practices is crucial.
- At an organisational level, individuals specialising in cybersecurity, such as Cyber Leads and Non-Functional or Pen Testing experts, should be appointed.
- Yes the experienced ones will be more expensive, but if you pay peanuts...it's about Value for Money, not Cost.
- Creating a network, fostering collaboration and investing in these professionals can take time but will prove invaluable for an effective response during a cyber crisis.



4. Building Preparedness:

So, what can we do – here are 3 top tips to help prepare:

Good Processes:

- Establishing battle plans and playbooks that outline flexible response strategies for various cyber-attack scenarios is essential.
- Regular cyber drills and simulations can help test the effectiveness of processes and identify areas for improvement.
- Again this is an investment in time and resource, but this proactive approach will ensure any organisation is better equipped to handle cyber incidents when they occur.
- The NHS can help each other here with shared learning on good practice and processes.



4. Building Preparedness:

So, what can we do – here are 3 top tips to help prepare:

Technological solutions:

- Implementing robust cybersecurity systems, including regular software updates and patches, is imperative.
- Having a dedicated cyber strategy with defined timelines (e.g., DTAC/DSTP) can ensure technology infrastructure is up to date and resilient against ever evolving threats.
- This includes securing medical devices, networks, and data repositories to safeguard patient information.



5. AI: Understanding the Risks:

- While the adoption of artificial intelligence (AI) in healthcare offers appeal and a potential quick fix, it can also introduce potential risks.
- Rapidly introducing AI without proper scrutiny, control, and understanding may lead to vulnerabilities that could be exploited by cybercriminals.
- Time: How much time is going to be wasted reacting to events rather than being proactive?
- Cost: How much will it cost to remedy any problems rather than putting preventative measures in place?
- Quality / Safety: How will it affect patient services and care when critical systems are unavailable or data lost?
- It's mundane, but we do need to constantly review and mitigate these risks – ultimately this is about patient safety so maintaining the integrity of healthcare systems is vital.



NHSEI Vision - NHS Long Term Plan – Personalised Medicine > Genomics

Commitment

- 01** To be the first national health care system to offer whole genome sequencing as part of routine care.
- 02** To sequence 500,000 whole genomes by 2023/24, helping transform healthcare for maximum patient benefit, including for all children with cancer or children who are seriously ill with a likely genetic disorder.
- 03** Extended access to molecular diagnostics and offer genomic testing routinely to all people with cancer.
- 04** Early detection and treatment of high-risk conditions including expanding genomic testing for Familial Hypocholesterolaemia.
- 05** Linking and correlating genomic data to help provide new treatments, diagnostic approaches and help patients make informed decisions about their care.

 **Insight**

 **Involvement**

 **Improvement**

 **Alignment**

Collaboration

AHLC Solutions Ltd (AHLC) and Health Innovation Consortium (HIC) are partnering to bring together skills, experiences, and a commitment to driving this forward, helping to identify solutions to support the vision integration of genomic medicine into mainstream services across North West England.

We believe the NHS will go on to achieve tangible benefits for millions of people across the country, delivering effective personalised medicine as part of the standard of care.



User Challenges and Barriers

“Historically as a clinician, one of us will be the admin assistant for an MDT. We're very expensive admin...some of the patients we discuss aren't our patients, we don't have any records and it's other hospitals that will then need to record that discussion in that patient's record.... don't find managing spreadsheets, and repeating information a valuable use of my time”

Catherine Houghton
Lead Genetic Counsellor, Liverpool Women's Hospital

“I must say as a heavy user of the system in neurology it is proving quite a challenge to smooth requesting of such investigations and has had a major impact on my time as a clinician, to a certain extent that there has been delays in requesting investigations.”

Michael Bonello MD MSc FRCP
Consultant Neurologist, The Walton Centre

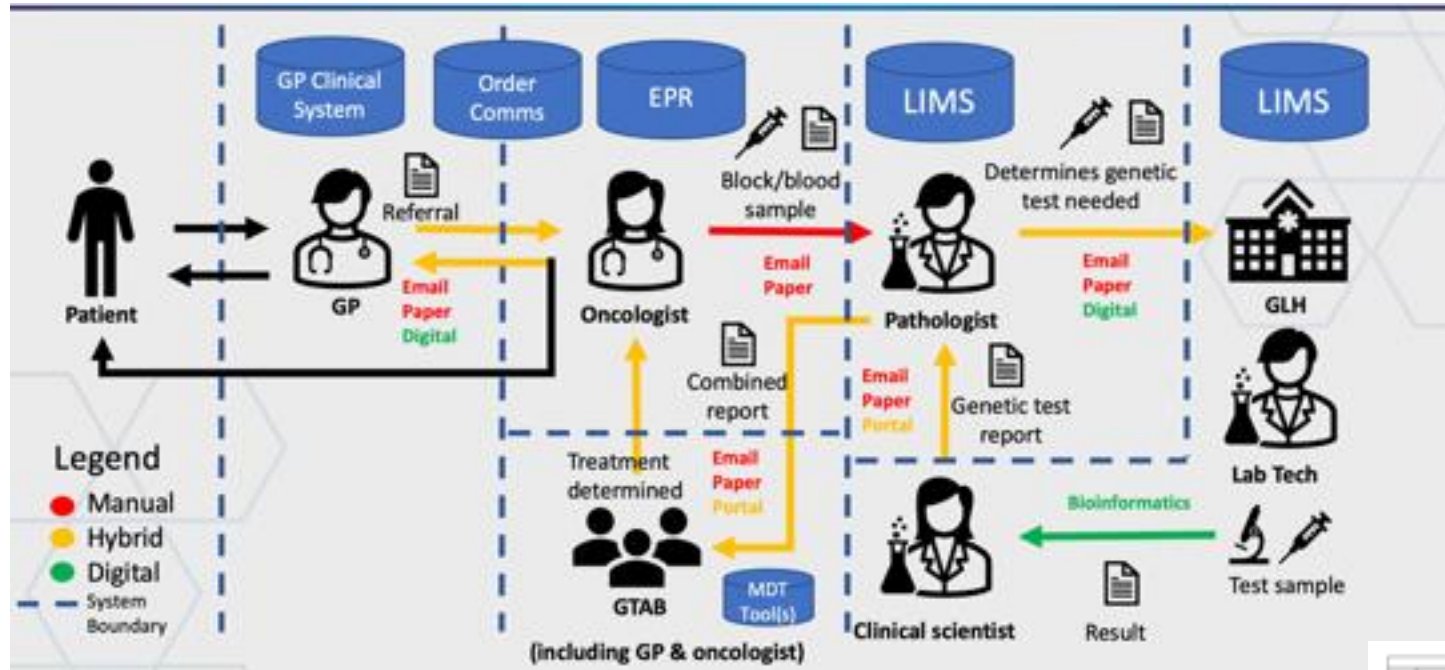
“We have had 1051 referrals since February 2022..... they come in by email and letter.... There is no formal system so we created an excel spreadsheet we probably reject 20% of our referrals, they're not appropriate for us”.

Natalie Canham
CIO and Consultant Clinical Geneticist, Liverpool Women's Hospital

Themes throughout engagement

Geographical Barriers	Ethnical and Cultural Barriers
IT Connectivity	Administrative Burden
Complexity of requesting	Duplication of information
Recording Consent	Sharing family information
Sharing results for MDTs	No tracking of orders/ Audit

Pathways' systems flows As-Is state

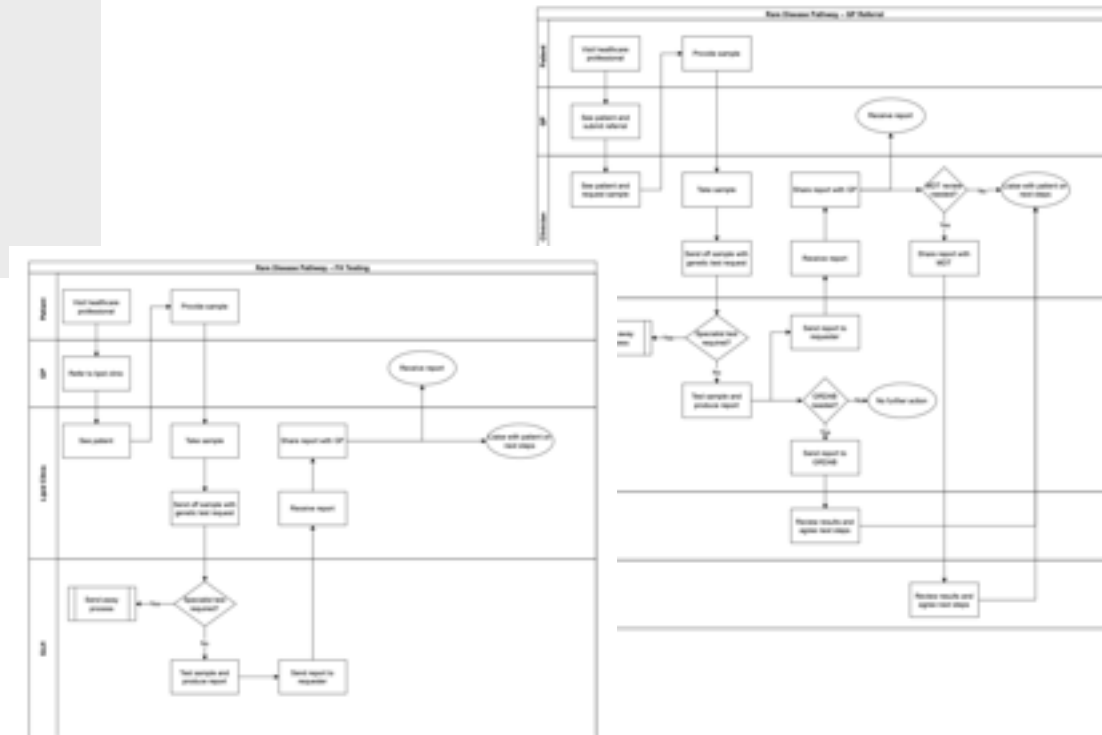


Visual representations have been developed of the roles and pathways of processes for use cases, as well as swim lane diagrams such as:

- ✓ Rare Disease Pathway – GP Referral
- ✓ Rare Disease Pathway – Foetomaternal
- ✓ Rare Disease Pathway – Coroner/ICC
- ✓ Rare Disease – FH Test
- ✓ Cancer Pathway
- ✓ Cancer Pathway – DPYD

Challenges to systems Mapping

- ✗ Low number of responses to technical surveys & engagements
- ✗ Lack of engagement/response from shared care records in the North West



Recommendations

Interim Report

Full Report

Weekly Reports

IG Tool Kit

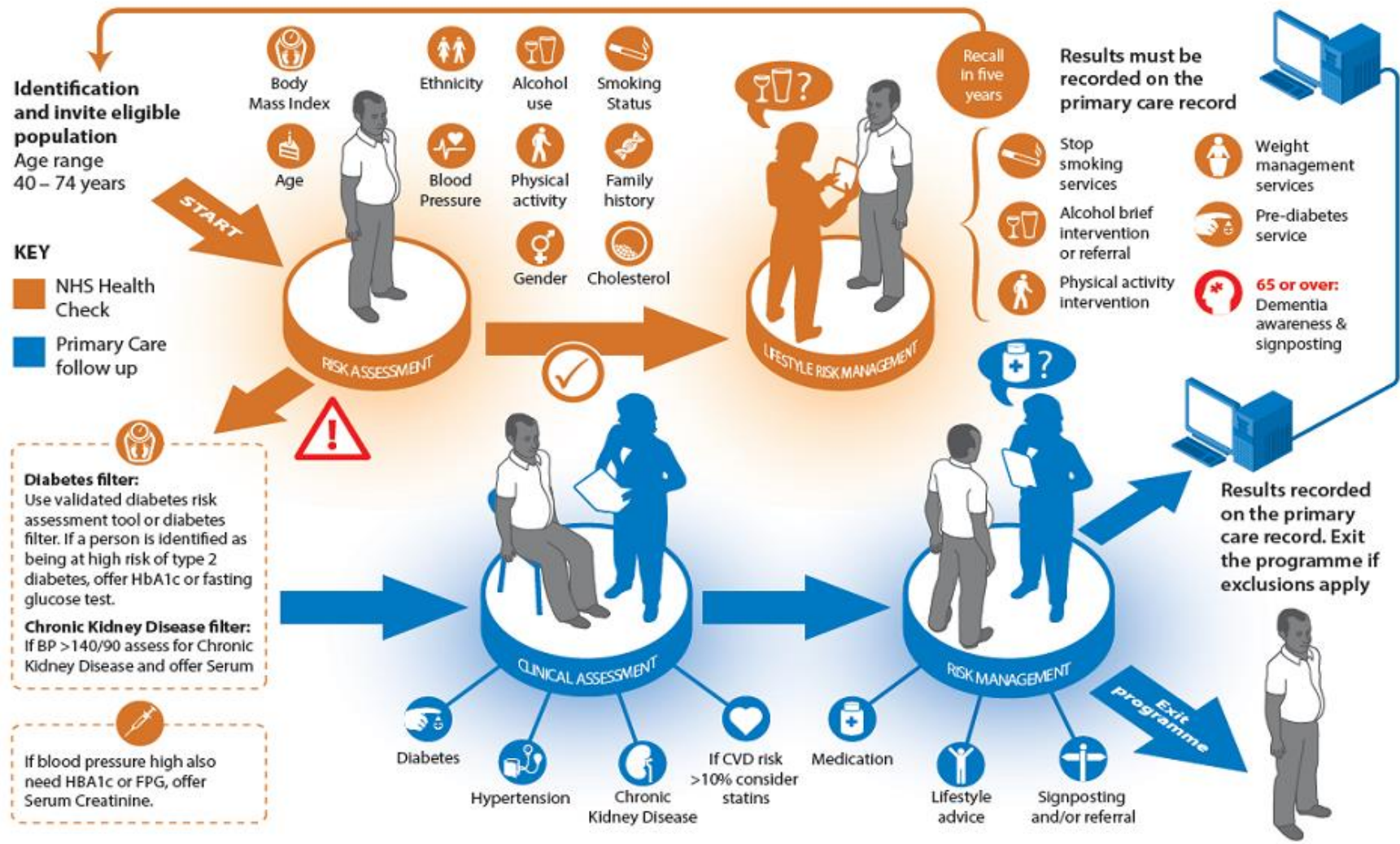
IG Review Report



Workstream	Progress Made	Plans for next week	IG	IG	
Technical	<ul style="list-style-type: none"> Interim engagement brief for regional national stakeholders and Identify other content from the current IG Business model working brief and questions for stakeholder Requirements Professional working for IG for this week and next week to ensure and content is 'fit for purpose' - focus has shifted from to meet our IG and ensure that content is fit for purpose Review documentation shared by the IG - input to final technical strategy meeting 	<ul style="list-style-type: none"> Deliverable sets in order of the IG in government view and understanding of functions Business model brief to be sent Monday 24th March Commence producing systems catalogue, as a template for Commons listing with pathways, networks, cancer research & regional case studies for collaborative future work with the work report the business case Start of business strategy with those with who have reported our views 			
Information	<ul style="list-style-type: none"> Continued working on the IG - input to final technical strategy meeting Continued working on the IG - input to final technical strategy meeting Continued working on the IG - input to final technical strategy meeting 	<ul style="list-style-type: none"> Commence producing IG case study of working IG agreements and highlighting as good practice for the IG to use Commence engagement plan with stakeholders to understand challenges and opportunities that a shared operational part of view Production of engagement brief to be shared to regional IG stakeholders 			
Communication	<ul style="list-style-type: none"> Final engagement plan for IG and engagement strategy and engagement model Engagement strategy - business model to manage and monitor stakeholder engagement Engagement strategy - business model to manage and monitor stakeholder engagement 	<ul style="list-style-type: none"> Commence working on engagement strategy Commence working on engagement strategy Commence working on engagement strategy Commence working on engagement strategy 			
Support and	<ul style="list-style-type: none"> Final engagement plan for IG and engagement strategy and engagement model Engagement strategy - business model to manage and monitor stakeholder engagement Engagement strategy - business model to manage and monitor stakeholder engagement 	<ul style="list-style-type: none"> Strategic Objectives and Roadmap workshop to deliver service, content and Final health strategy brief containing IG IG 			
Other	<ul style="list-style-type: none"> Final engagement plan for IG and engagement strategy and engagement model Engagement strategy - business model to manage and monitor stakeholder engagement Engagement strategy - business model to manage and monitor stakeholder engagement 	<ul style="list-style-type: none"> Business model brief to be sent Tuesday 24th March Start of business strategy with those with who have reported our views Work up to business strategy to understand the presentation and view and identify opportunities for stakeholder 'IG' to deliver 			



NHS Health Check



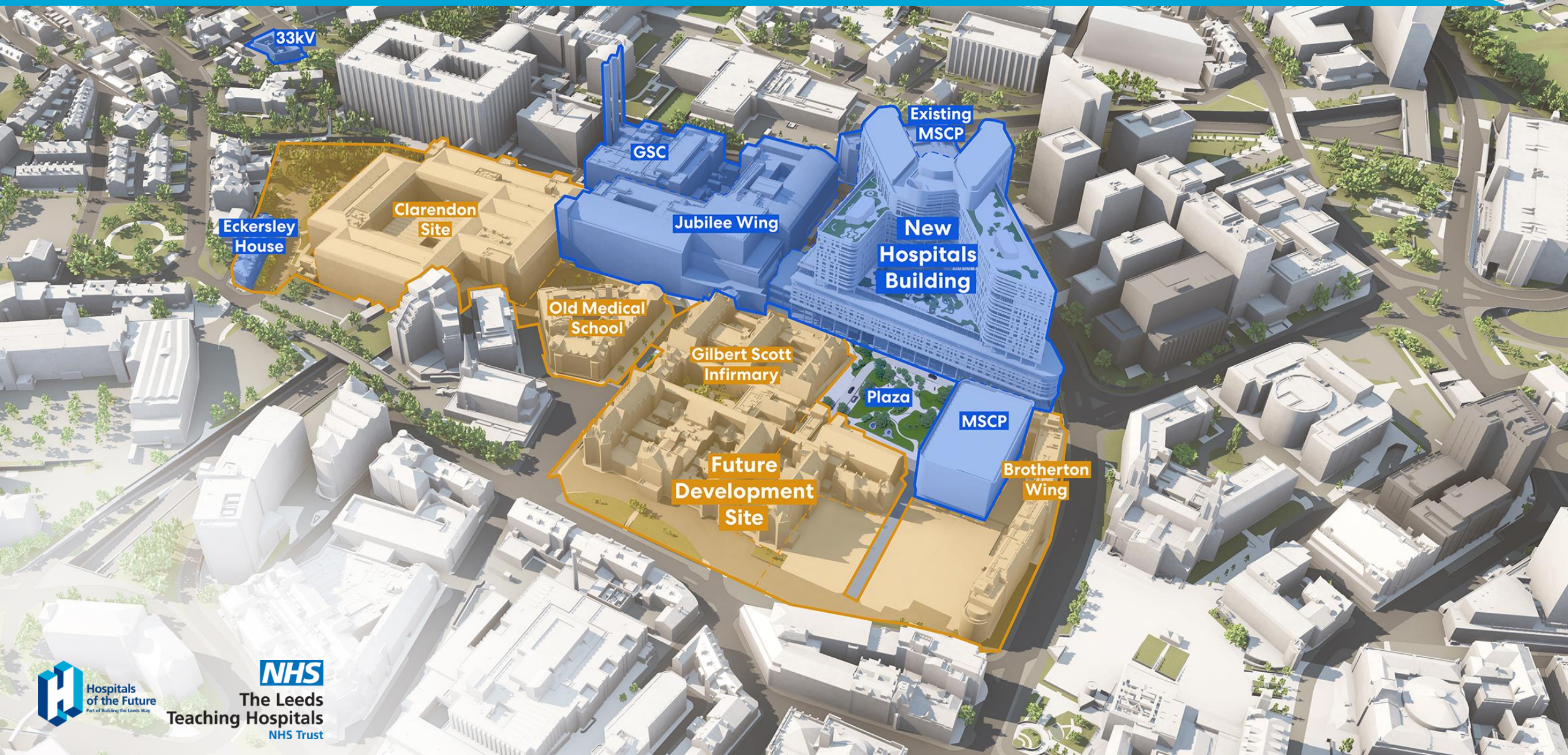


New Hospitals



A new Children & Adults' Hospital ...

Highly Commended in the best *Future Healthcare Design* Category, European Healthcare Design Awards 2023



PURPOSEFUL INNOVATION

Delivering Healthcare for the Future



Efficient Hospital Flows

Real Time Location of
assets and people



Adaptability & Flexibility

Ensuring we can transform
space to meet surge capacity



Care Closer to Home

Virtual care and
wearable technologies



Pro-active Monitoring of Built Assets

Smart Enterprise Asset Management
and Digital Twin



Culture of Innovation

Innovation Pop Up and
Leeds ARC



WELL GOLD Building

Design to provide optimal
environments for staff and patients.

Digital Transformation

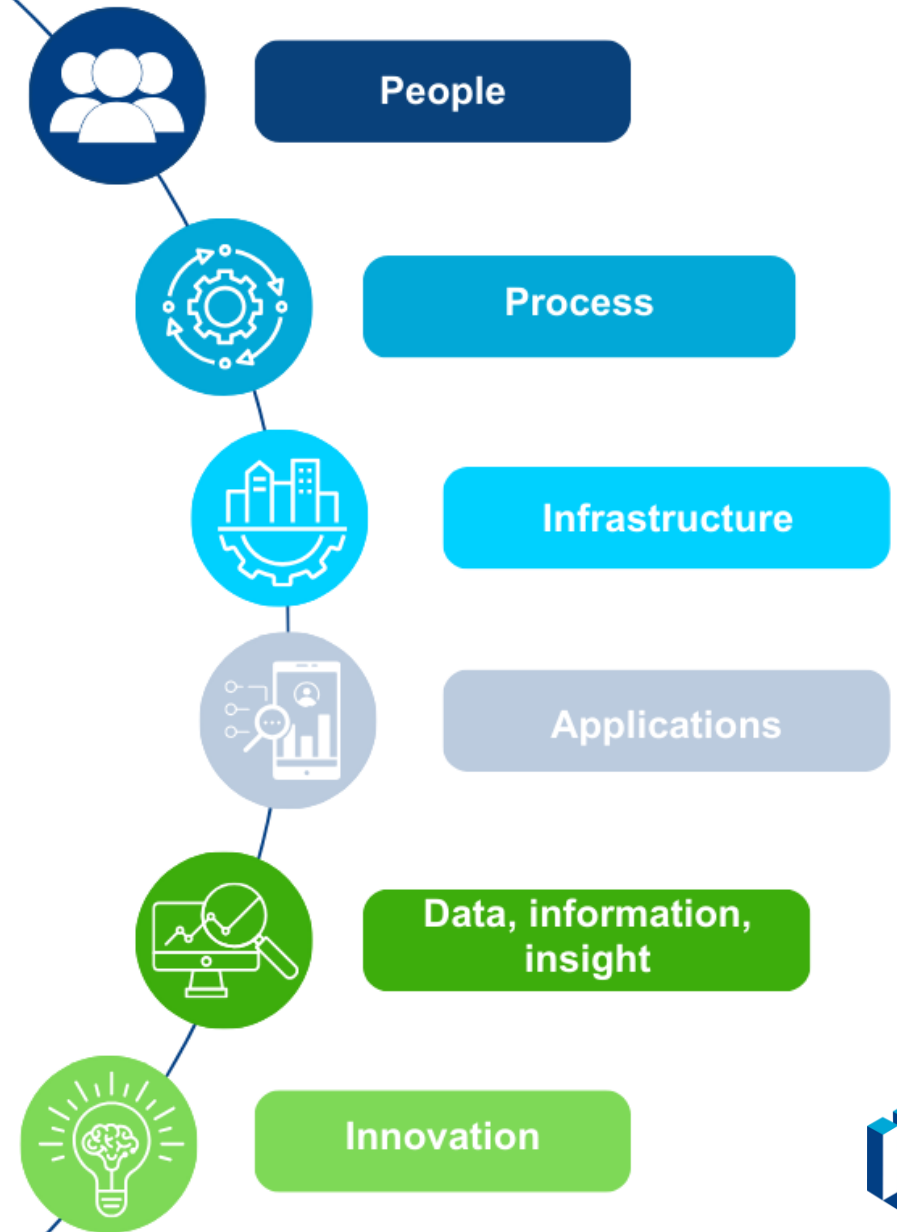


The Leeds Digital Way

The Leeds Digital Way is the Trust's vision to use digital and new technologies to provide excellent, safe and integrated patient-centred care in Leeds and beyond.

Whilst continuing to ensure the digital framework is in place we want to grasp the opportunity for digital innovation that our new hospitals will bring.

6 Key areas of activity



Digital Driving Design



Digital by Design



The Leeds Teaching Hospitals NHS Trust



ppm+
Electronic Patient Record (PPM+)

Smart Rostering

Data Platform

Digital Wayfinding

Smart Beds

Smart Scheduling

Building Information Model

Sensors for Asset Management

Room/environment control capability

Digital Twin



Network upgrade

Telephony System upgrade

Storage Infrastructure

Server Infrastructure

Paediatric Acute and Urgent Care - PCAL/CAT: Jack's Lumbar Puncture and Autism

STAGES



STEPS

The steps that the user takes in their journey, interacting with different services and technologies along the way

PRIMARY CARE ADVICE LINE (PCAL)

Elaine takes Jack to the GP due to him having a headache, sensitivity to light and high temperature – his mum and main carer (Elaine) is worried and wants Jack assessed ASAP

The GP seeks further advice from a paediatrician, so the GP uses their portal to log into PCAL online and use the virtual chat to speak to the team, inputting Jack's symptoms. Jack is triaged from there and Elaine is instructed by the GP to bring Jack straight into the Children's Assessment and Treatment Unit (CAT) for review, bypassing the emergency department (ED). This online PCAL service helps to bridge the gap between primary and secondary care, speeding up the process and making it more efficient. This eliminates the need for Elaine to bring Jack into an overcrowded ED

CHECK-IN

Elaine receives instructions sent to her app on her smartphone, which provides her with step by step process to get Jack to the right place for treatment. This includes instructions where to go, the designated parking space and a profile of the consultant who will be carrying out the procedure. Elaine is also prompted to check in using her smart phone when she enters the hospital for speed

APPOINTMENT

Whilst Jack is unwell, he is still not coping well with the unfamiliar environment and he is upset. The doctor uses a sensory toolkit to try and calm Jack down, he provides Jack with noise cancellation headphones and Augmented Reality (AR) which is tuned into one of Jack's favourite adventure stories about space. The doctor then gives him a local anesthetic and carries out the procedure (a lumbar puncture)

The procedure goes well; however it confirms that he does have Meningitis after a quick turn around of results from the digital lab. Jack's doctor sits down to discuss this with Elaine and discusses next steps. Follow up notes and steps are also sent to Elaine, which she can access in her own time too

THE WARD

Jack is admitted to the Paediatric medical ward where he has access to his own isolated room and access to charging points etc. for his tablet. Jack can also control his own lighting and temperature of his room to make sure its just right for him

Jack is very shy around strangers, so to help communication, Jack communicates through his bedside portal, which is where a group chat is set up between himself, the nurse and his mum (carer) to help him to communicate his needs. Jack also uses the bedside entertainment system to video call home to see his dog, Skye, who makes him feel more at ease in an unfamiliar environment

EMOTIONAL EXPERIENCE

Patient benefits that will close the experience gap between the current state and future state of the patient journey

This is very stressful for Jack as he hates feeling unwell, however he is pleased that he knows that help is accessible quickly

Elaine is grateful that the GP can access quick help with fast responses as she is anxious about Jack's wellbeing and wants him seen ASAP

Being able to go straight to CAT is great as Jack is already stressed and Elaine is aware that a crowded ED would make his stress levels even higher

Elaine loves having instructions sent straight to her phone, as she can spend less time searching for directions to ward etc., and more time trying to calm and distract Jack, which is necessary at this point

Having noise cancellation headphones really helps Jack here as he is familiar with them and takes comfort in hearing a short story about space, whilst being able to ignore all surrounding unfamiliar noises

Elaine is glad that the follow up notes and next steps are also sent to her as she struggles to concentrate in times of stress

As Jack does not like being in unfamiliar environments, he finds it comforting that he can control his own lights and temperature in his own room, as it gives him the sense of control that he needs

Jack finds it comfortable that he doesn't need to speak to unfamiliar people, especially when he is tired and not feeling his best. Also, being able to see Skye reduces his anxiety about not being at home

TECHNOLOGIES UTILISED

FABRIC

FOOTPRINT

FLOW

Longitudinal Care Record System
Jack's GP accesses Jack's records across full system to check if there has been any related health issues in the past

Digital Front Door
GP uses patient portal to access the PCAL service to communicate with PCAL team to get help for Jack's symptoms

Command Control Centre
Alert received and system informs CAT of Jack's arrival and ensures there is a bed available

Smart Triage
AI-enabled triage tool that facilitates bespoke care pathway identification

Longitudinal Care Record System
Jack's records are shared across the Longitudinal Care Record System between the primary and secondary care

Digital Transfer of Care
Transfer of Jack's care from Primary to acute care

Smart Parking
Elaine utilises the smart parking and automatic number plate recognition technology, to ensure that a suitable car parking space is available ensuring that the process is as smooth as possible for Jack

Command Control Centre
Identifying busy/quiet areas in the hospital to assist with wayfinding

Self-Service Check In Tools
Elaine uses her mobile phone app to check in

Immersive Technology
Jack uses AR (with a reduced intense light level) to distract him and engage him with characters/a story is comfortable and familiar with

Digital Front Door
Elaine has access to the audio recording of the conversation so that she can listen back in her own time

Renewable Generation
Accessible chargers that are powered through renewable energy throughout the hospital to support the use of mobile devices and tablets

IoT Sensors
Patients can adjust lighting and temperature in their environment by motion and voice

Integrated Bedside Terminals
Devices that provide information and entertainment during inpatient stay

Digital Front Door
Jack is able to use the video technology to communicate with home

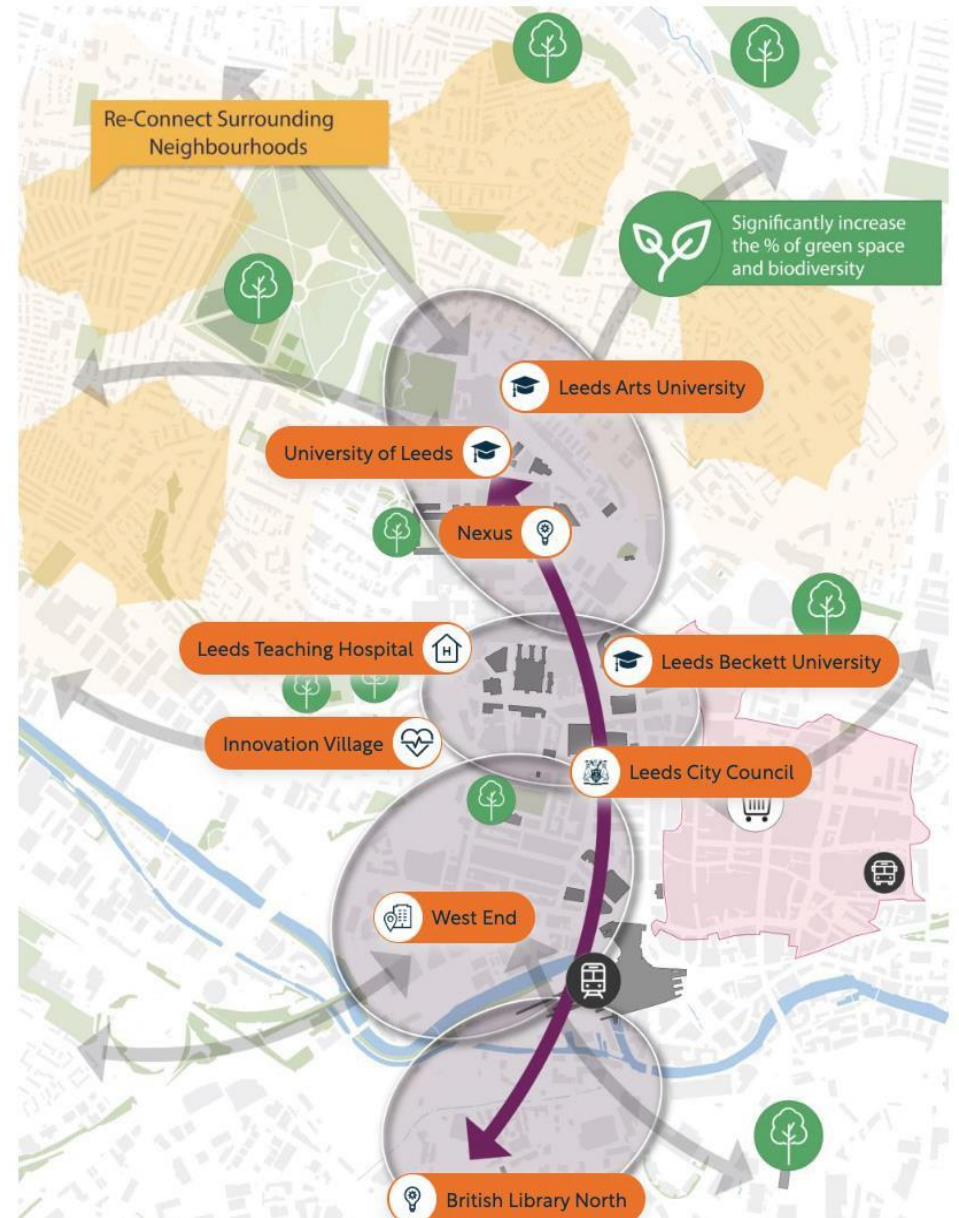
Innovation / Emulation



Leeds Innovation Arc

Set across **150 hectares** of the city centre the Innovation Arc will stitch together some of the most significant innovation assets in the north of England.

There will be over **3000 new homes** in and around the Arc and the potential for up to **220,000m²** of public realm improvements as well as space for two new city parks creating 4 hectares of new, meaningful green space.



Innovation Village Masterplan

Future for the innovation Village



- >100,000m2 development
- 4000 jobs
- 520 new homes
- 13bn GVA benefit



Leeds Innovation Village

Creativity

Innovation

Culture

Community

Connect



Project Phoenix – The Old Medical School

A Healthtech **innovation hub** at the heart of the Leeds Innovation Arc **co-locating clinicians, entrepreneurs and academics** for the first time with **outstanding learning, education and innovation facilities** for healthcare staff, developing the products, services and people that will change healthcare.

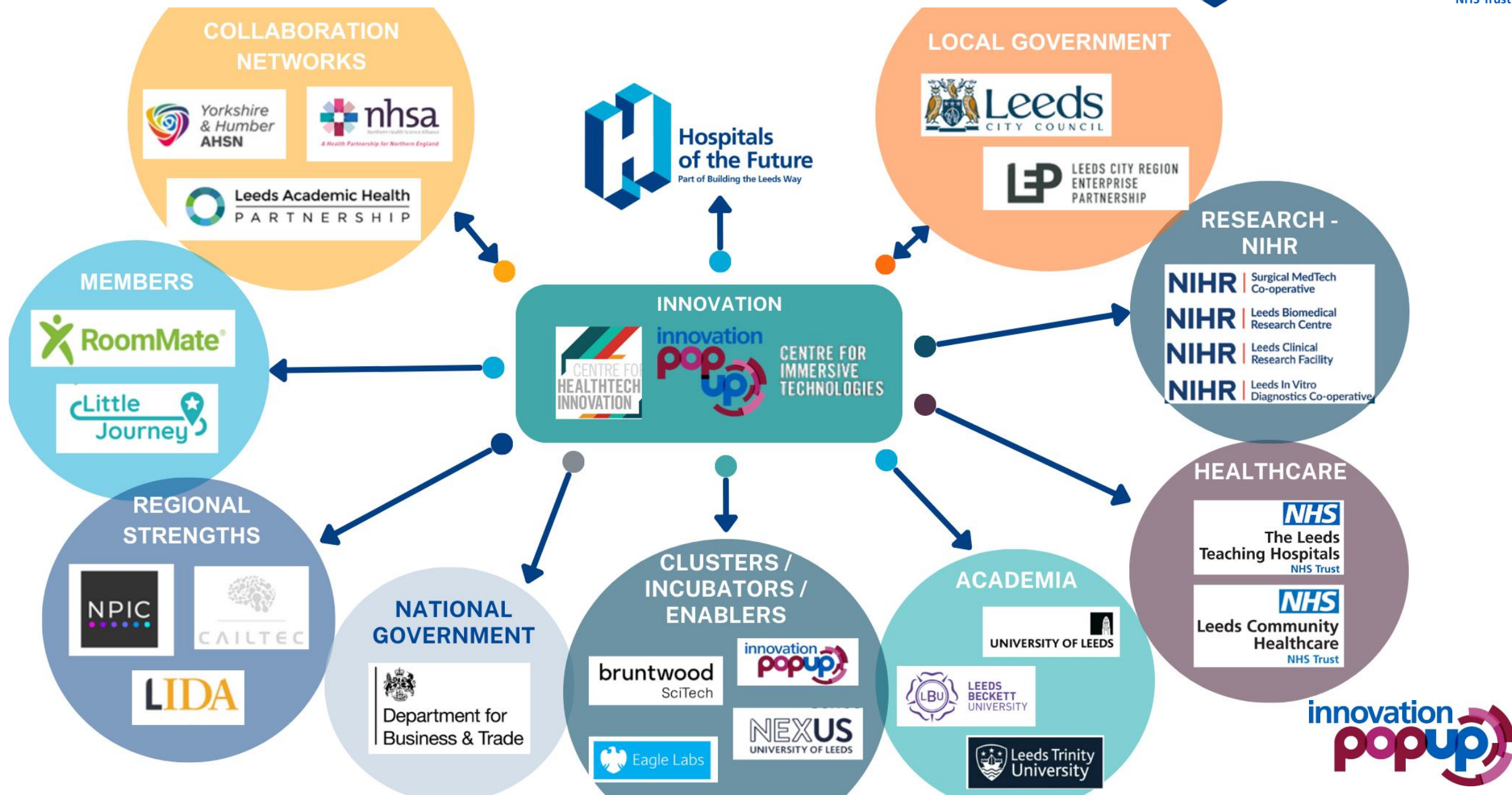
- Aligns with the West Yorkshire Investment Zone
- Aligns with the Leeds Innovation Arc
- First phase of the Innovation Village
- Vacant from mid-late 2024
- Open from 2026/2027
- Potential location for the Innovation Pop and Trust Education and Training (part)
- Potential collaboration with Nexus
- Potential for over 200 jobs



Public / Private Partnerships



Wider Network and Strategic Partners



Digital Market Engagement Key Themes

1. Clinical Communications



2. Virtual Care Solutions



3. Operational Solutions (e.g. RTLS, bed management)



4. SMART Building Solutions



5. Inpatient Central Monitoring and Patient Observation



6. Patient Flow Solutions (e.g. wayfinding, mobile check in)



7. Resilient and Reliable Network Provision



Sustainability

Sustainability Principles

1	2	3	4	
Net-zero Carbon Whole lifecycle approach – consider whole life impacts e.g. from embodied carbon and unregulated emissions Best practice hierarchies – (1) lean (use less energy), (2) clean (supply energy efficiently), (3) green (use renewable energy) – recover energy, insulation and air tightness; supply efficiently e.g. heat pump technology Energy Monitoring and Soft Landings – SMART energy systems to constantly respond and reconfigure – <i>responsive buildings</i> Construction Validation – use of products with EPDs	Wellbeing External - daylight, access to external spaces, external views and high-quality artificial light Acoustics - different acoustic zones to manage background noise Air quality – access to natural ventilation Active lifestyles – buildings supporting active and health lifestyles POE & Soft Landings – quality verified through occupants experience Telehealth – integration of digital to increase accessibility and quality	Adaptable & Resilient Flexibility - adaptable spaces that reflect changing uses and the use of BIM to support Future proofing – considering changing clinical needs – systems, services as well as layout/design Climate Change readiness – design to respond to the changing climate – weather, wind, etc. Back-up and resilience within systems – reliable and uninterrupted with no single points of failure - site back-up and localised N+1 for building systems	Resource Responsibility Construction waste and emissions reduction – reduce, reuse and recycle Circular economy and DIMA – local supplies of goods/labour where possible. Integration of DIMA to support delivery of deliver waste, construction and flexibility benefits Operational waste management and reduction – reduce, reuse and recycle Water efficiency and recycling – water recovery and recycling, efficiency in equipment, SUDS, etc.	Digital, data and technology as an enabler
Build construction; live building performance monitored on demand	Controls and monitoring; digital communications	Telehealth; scenario modelling	Automated monitoring; Responsive data driven by Asset Management	
Certification BREEAM 2018 (“Excellent”); WELL Building Standard (“Gold”)				Framework to demonstrate that sustainability is embedded within the project lifecycle

Concept Design:

127

1. Net Zero Carbon:

- Be Lean: passive design of building including modelling to influence glass:façade ratio;
- Be Clean: electric heat pumps as a green alternative to the GSC
- Be Green: PV Panels incorporated into the design to provide renewable source of energy;

2. Wellbeing:

- BREEAM Excellent and WELL Gold achievable at this Workstage;
- Design maximises natural daylight and has factored in air quality, acoustic and active lifestyle measures.

3. Adaptable & Resilient:

- Thermal modelling including 2050 climate scenarios to design for the future;
- Flexibility of spaces considered – build less in the future if spaces can be easily converted (e.g. workspace into outpatient space);
- Digital tools (like telehealth) to reduce travel to site where not required and associated carbon.

4. Resource Responsibility:

- Embodied Carbon minimised through selection of Sub and Super structure and façade materials, along with MMC solutions to maximise standard materials that can be manufactured locally.

Sustainability Architectural Strategy

- | | |
|--------------------|----------------------------|
| 1. Net Zero Carbon | 3. Adaptable and Resilient |
| 2. Wellbeing | 4. Resource Responsibility |

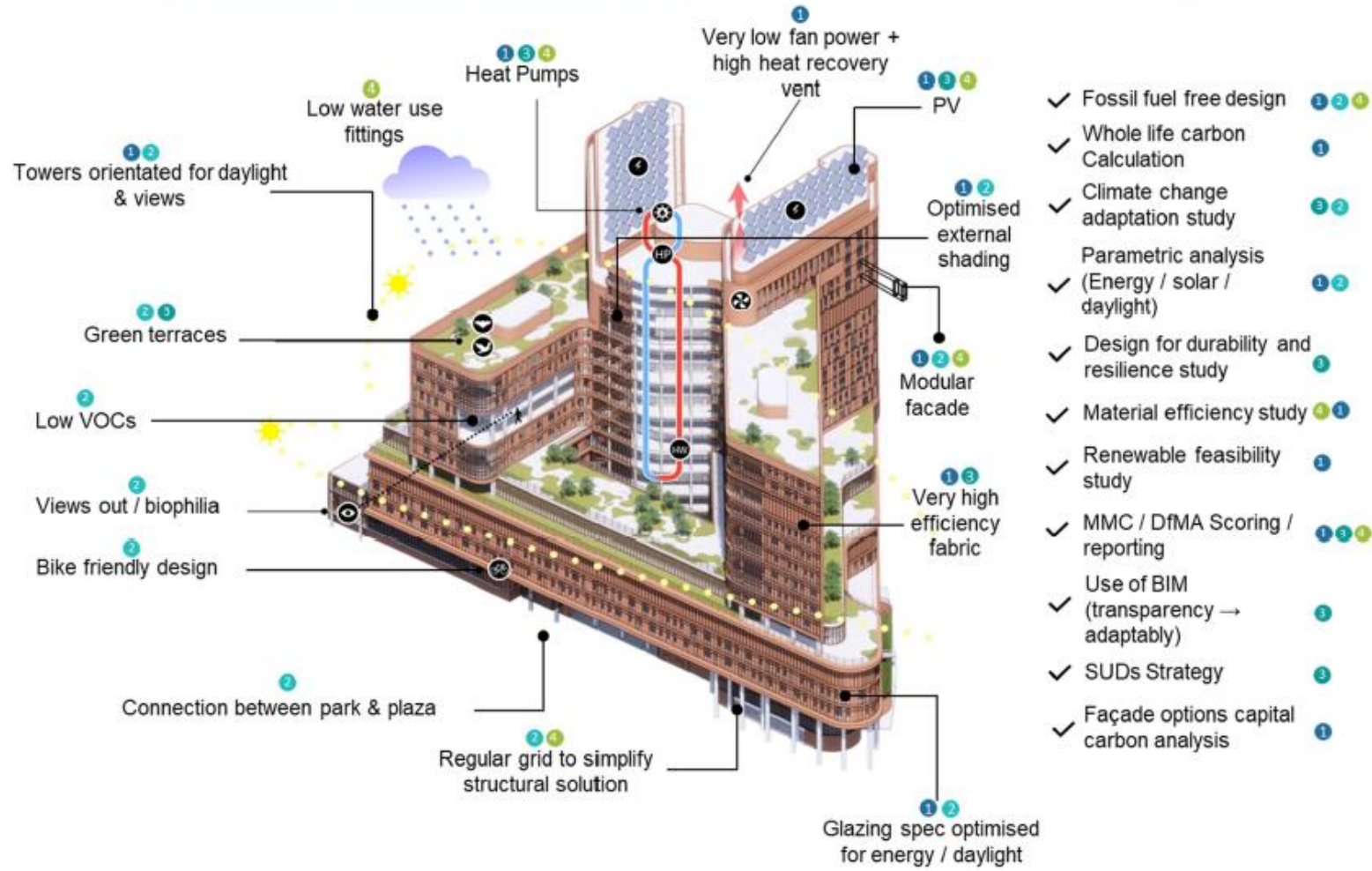


Figure: Sustainable design features and analysis mapped against project sustainability brief principles

Mental Health Focus



JUST TALKING CAN HELP

NHS talking therapies can help you if you're struggling to cope with feelings of anxiety or depression. They're effective, and confidential. Your GP can refer you or you can refer yourself online [nhs.uk/talk](https://www.nhs.uk/talk).



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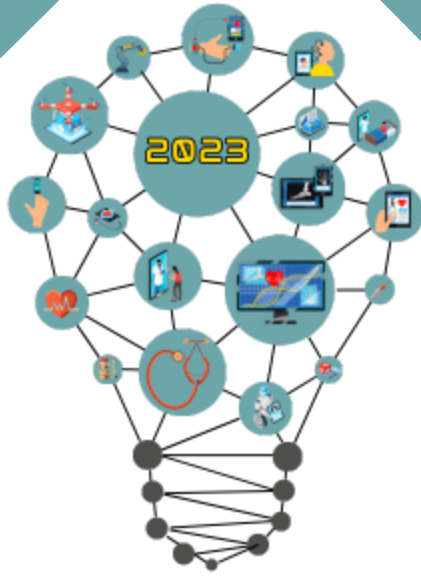
THANK YOU



Andy.Williams@ahlc-solutions.com



Speaking Now...



**NHS HOSPITAL IT
CONFERENCE**



Alice Morrissey
Automation Programme
Manager - Guy's & St
Thomas' NHS
Foundation Trust



Stephanie Lurshay
Lead Pharmacist –
Digital Innovation &
Technology; & Clinical
Lead for Automation -
Guys and St Thomas's
NHS FT



Developing a Centre for Automation at GSTT

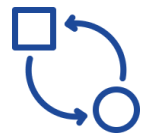
Alice Morrisey, Automation Programme Manager and Stephanie Lurshay,
Clinical Lead for Automation & Lead Digital Pharmacist

The Centre for Innovation, Transformation and Improvement

CITI brings together a range of capabilities within the Trust and our wider ecosystem to develop solutions to meet our most pressing needs and partner effectively with industry to this end



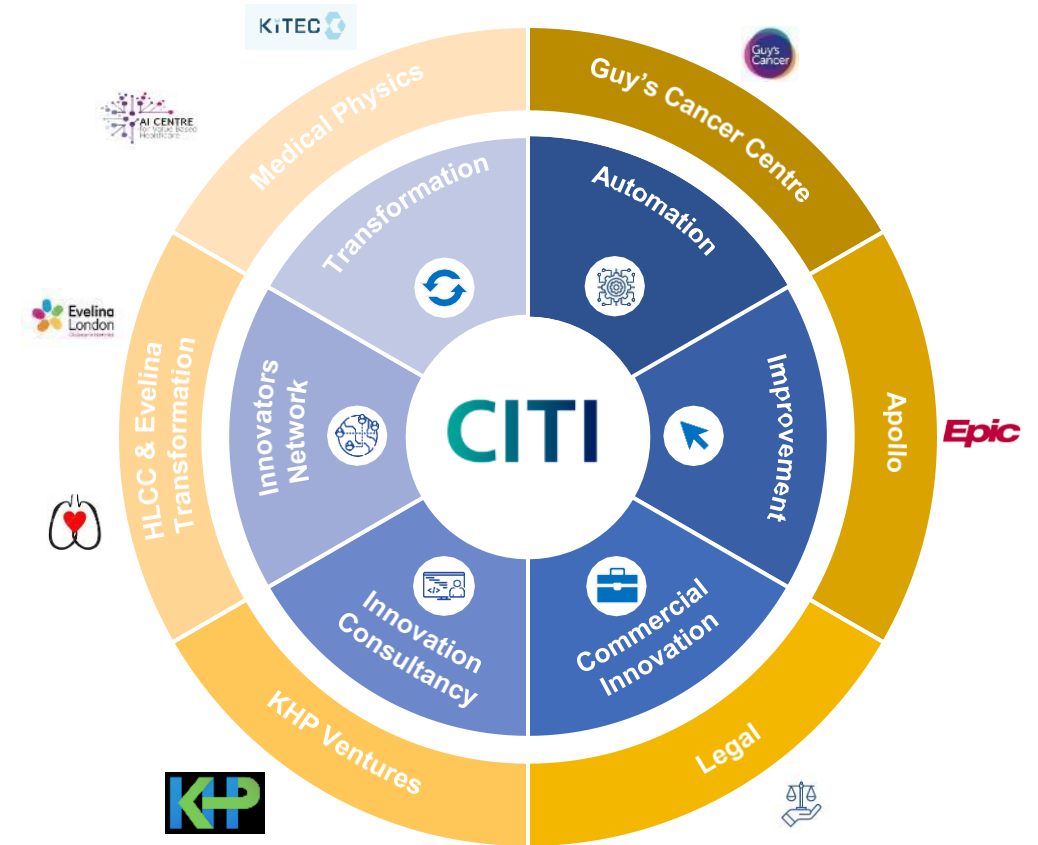
Innovating by incentivising and supporting staff to invent, commercialising our intellectual property for long-term growth, and collaborating with leading industry partners



Transforming by challenging existing practices and developing fundamentally new service models that deliver better, faster, fairer healthcare



Continuously improving our services through broad and deep understanding of quality improvement methodology and hands-on support to staff



Automation Team



Adam Igra
Innovation Director



Alice Morrisey
*Automation Programme
Manager*



Stephanie Lurshay
*Clinical Lead for
Automation*



Nicholas Bell
*Senior Automation
Developer*

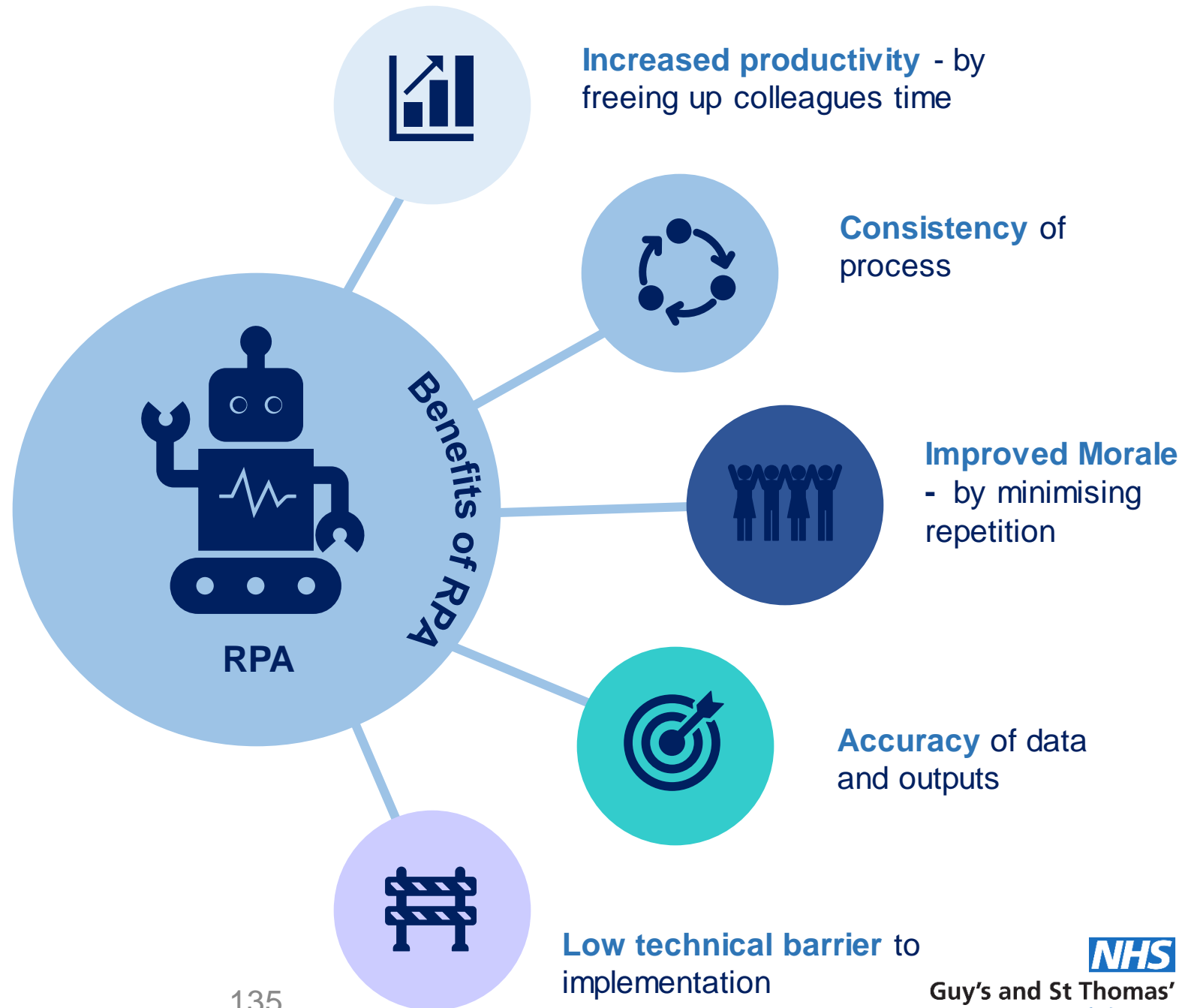


Alex Traynor
Automation Developer

Robotic Process Automation is software that uses virtual workers (or robots) to perform and automate repetitive administrative tasks

Tasks RPA can complete:

- ✓ Read structured data
- ✓ Copy and paste data between systems
- ✓ Follow “if/then/and/or” decisions of rules
- ✓ Follow detailed instructions, to navigate through systems like a human user would
- ✓ High volume, repetitive, rules based, low variance and labour intensive tasks



Developing a Centre for Automation



Consultancy development – To support first process automations quickly and safely

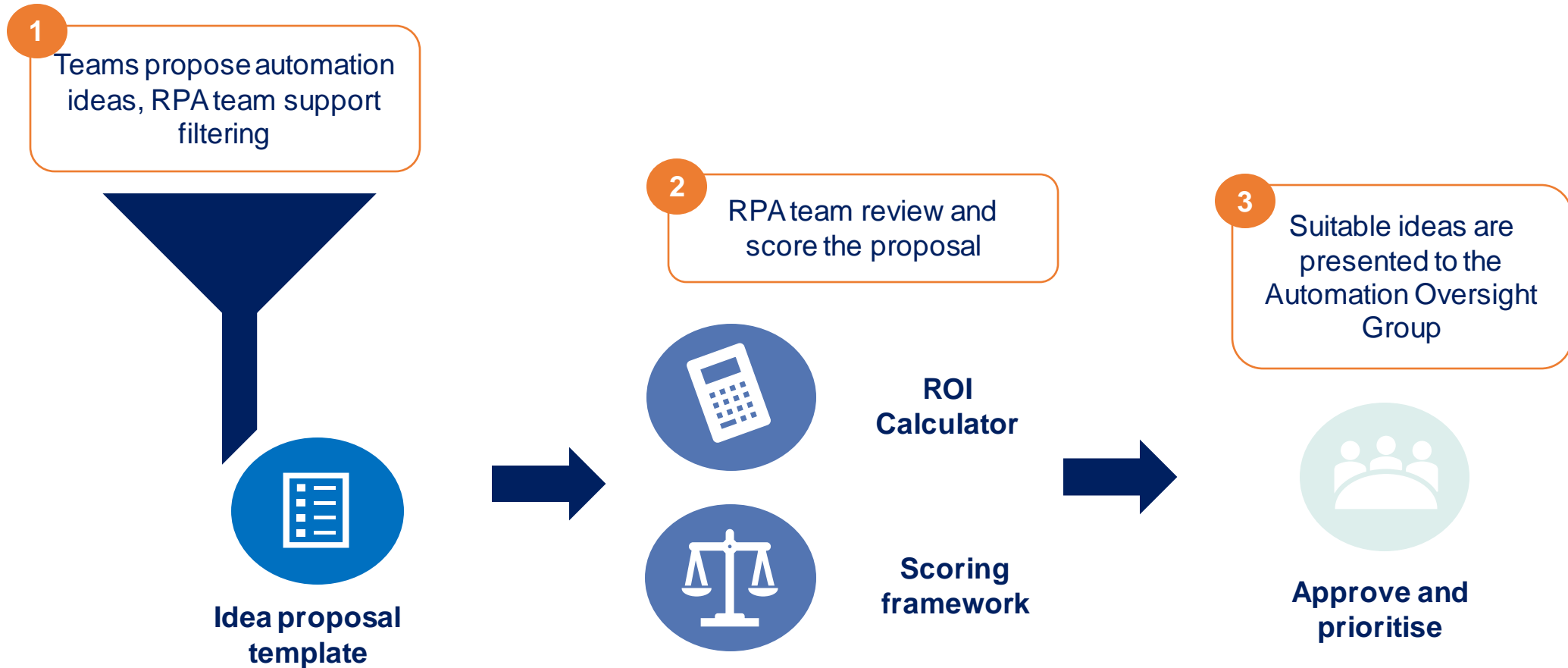


Developing team - Recruitment and upskilling of our own in-house team



Centre of Excellence AI & Automation – Working with AI team to expand capabilities

Proposing automation ideas



Clinical Governance

Clinical governance refers to the framework that ensures high standards of quality, safety, and effectiveness.



Standards and Regulations

- NHS Digital Standards
- Medical Device Regulations
- IG compliance



Clinical Safety

- Prioritise patients at every stage
- Risk assessment and mitigation
- Incident management and reporting



Quality & Accuracy

- Developing Guidelines, Policies and Procedures
- Shared learning across NHS
- Staff Training
- Change control at all stages



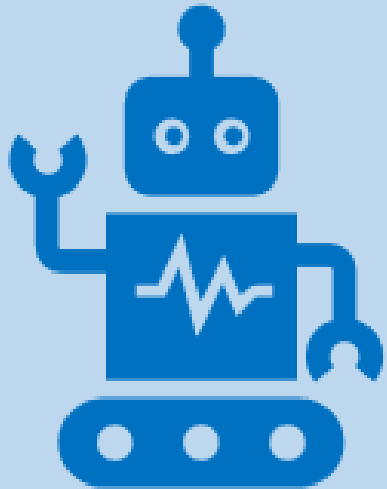
Evaluation

- Ongoing evaluation and performance monitoring for continuous improvement
- Staff/user feedback

Our pipeline of automation

Process Name	Pre workshop	Workshop	Sign off	PDD analysis	Development	Test	Live
Pharmacy Homecare invoice processing							Retired 5/10/23
3 x Data Validation							Retired 5/10/23
HR New Starters - General							
HR New Starters - Medical							
HR Close inactive bank records Allocate							
HR Terminate bank records ESR							
HR Close inactive bank records Healthroster							
Evelina Rostering							
HR Automate reference requests for bank workers							
Isla document uploads							

Case study: Data Validation



54,000

Waiting List errors
corrected

1300

Hours saved

173

Days work
saved

140

The GSTT CITI Automation team developed 3 automations to correct errors on the waiting list, including:

- Correcting partial booking clinician/specialty
- Waiting list with multiple linked appointments
- Waiting List with attended appointment

The automations were developed to:

- Tackle the backlog of errors which continue to grow due to limited admin resource available for correction
- Ensure the waiting list is accurate - which enables teams to more efficiently see patients and avoid bringing patients in for unnecessary appointments
- Clean up data ahead of migration to Epic - to ensure a smooth transition

(numbers from Dec 22 – Sept 23)

Case study: Pharmacy Homecare invoicing

Process:

An automation was developed to process invoices for Homecare team, who were spending significant resource to process invoices for the >5000 patients registered to receive medications supplied to their home.

Benefits:

- The team were still able to grow the service, despite carrying a number of vacancies
- Virtual worker took 3 min per invoice VS 7 mins for a human to process
- Increased staff satisfaction

(numbers from Mar 22- Oct 23)

Invoices processed

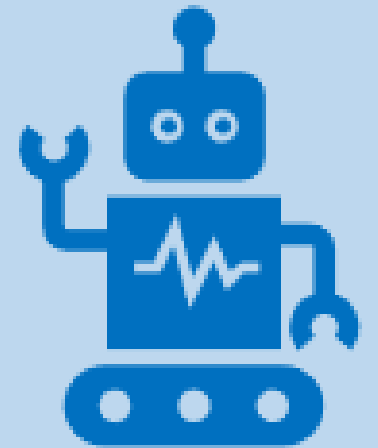
18,200

Hours saved

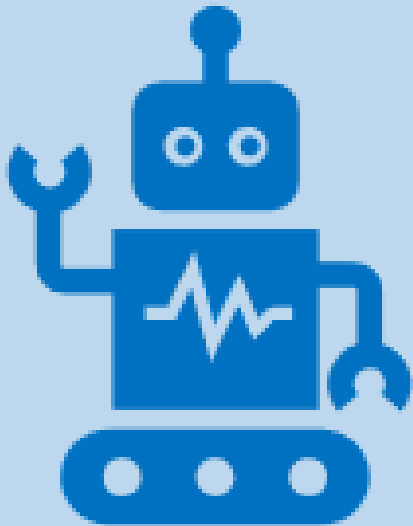
911

Days work saved so far

122



Case study: HR – Closing Inactive Bank only records



4775

Transactions
completed

80

Hours saved
so far

11

Days work
saved

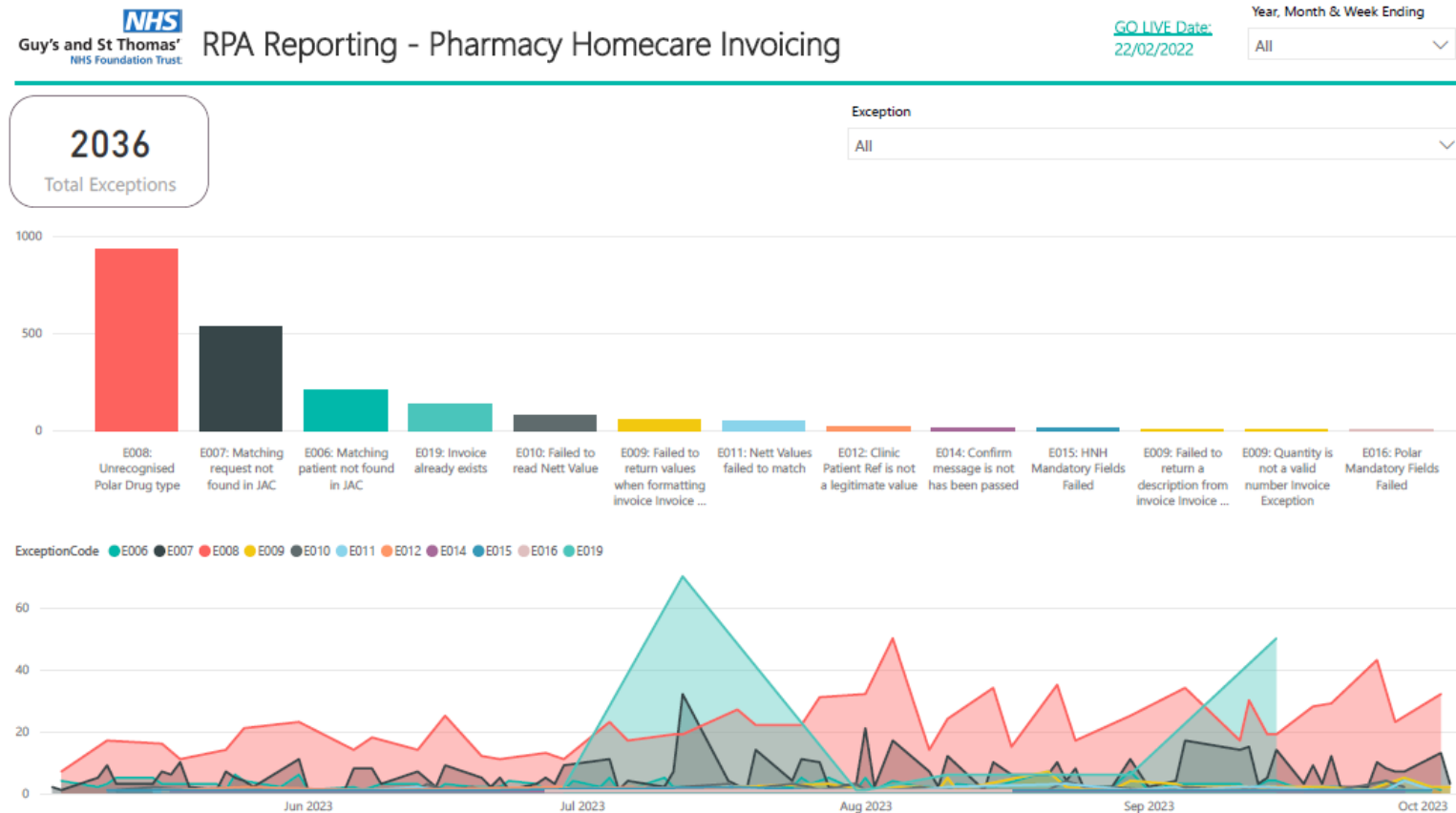
Process:

Deactivates legacy staff records in the Allocate Bank Staff system

Benefits:

- Ensure information is up to date in system, reducing number of wasted SMS job adverts we send to people no longer wishing to work on bank
- Supports system performance
- Free up time to reallocate team to work on other benefits realisation projects
- Serves as a pre-requisite for a second process terminating bank records from ESR
- Backlog now cleared, process will now run monthly

Dashboard for measuring value and providing a feedback loop for improvement



Learning



First processes – start small to allow for learning curve



In-house capacity brings flexibility vs consultancy allows faster initial progress – consider pros and cons



Contracting with process owners – define input you will need and agree clear success measures



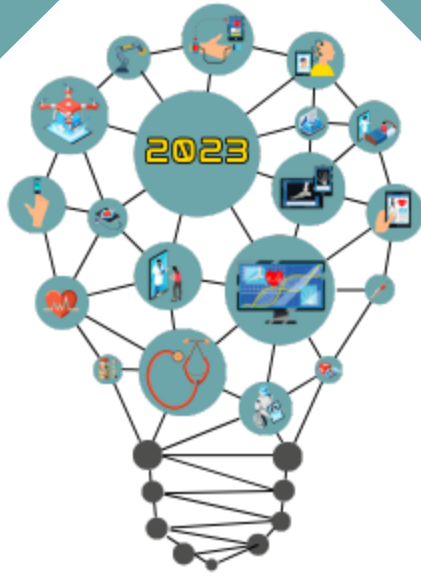
Implement development standards – provides stability, reduces future development cycles and reduces maintenance burden



Use the NHS Network to learn from others – join our developer call for troubleshooting, national network call for project managers

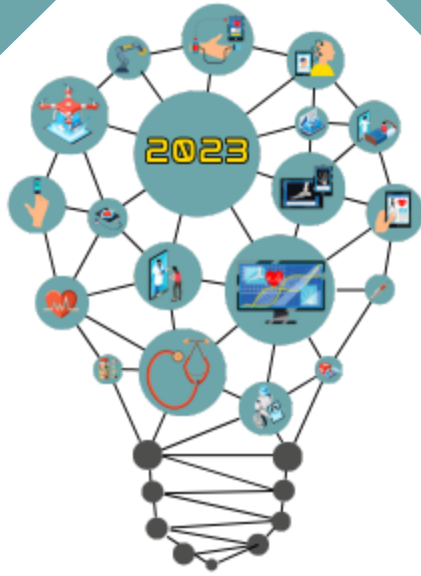


Consider alongside other technologies – RPA is one tool in the toolbox, how can you expand capability



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Q&A Panel

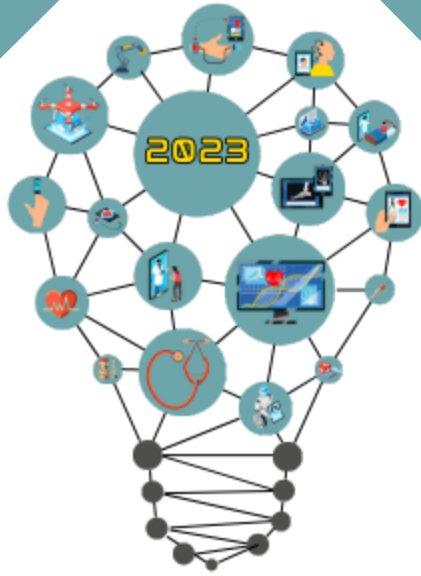


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Lunch & Networking



Chairs Afternoon Address



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Dr Gurnak Singh Dosanjh

GP and ICB Clinical Lead for Home First -
Leicester, Leicestershire and Rutland ICB



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Speaking Now...



Filipe Alves

Chief Nursing Information Officer (CNIO) and Deputy
CCIO - Ashford and St. Peter's Hospitals NHS
Foundation Trust



EPR IMPLEMENTATION BIG BANG APPROACH

Filipe Alves

ABOUT ME



Chief Nursing Information Officer and Deputy
Chief Clinical Information Officer – Ashford and
St. Peter's Hospitals NHS Foundation Trust

Certified Clinical Safety Officer

NHS Digital Nursing Programme South-East
Representative

NHS LONG TERM PLAN

WWW.LONGTERMPPLAN.NHS.UK

#NHSLONGTERMPPLAN

CHAPTER 5

Digitally-enabled care will go mainstream across the NHS

COMMITMENT

NHS organisations will have a core level of digital maturity and, specifically, an electronic patient record (EPR) by March 2025

EPR

Currently 86% of NHS Trusts have an EPR in place and this is expected to rise to 91% by December 2023

INVESTMENT

NHS committed c.£2bn in investment to ICS to support EPR systems implementation across the secondary care

*FERRIS, T. (2023) NHS TRANSFORMATION DIRECTORATE –
DIGITAL, DATA AND TECHNOLOGY (BOARD MEETING)*

RESPONSE



JOINT EPR IMPLEMENTATION

Go Live 15th May 2022



BIG BANG APPROACH

2 Acute NHS Trusts with over 5 non-acute sites

Greenfield implementation



BIG BANG APPROACH

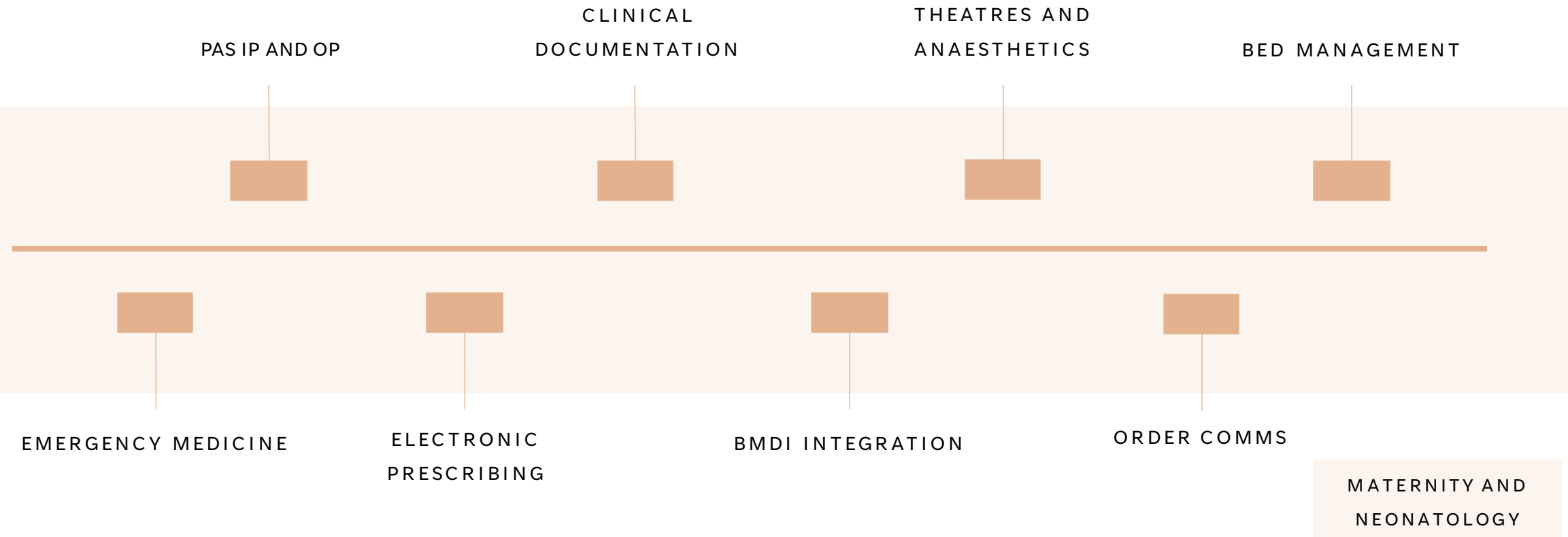
BOLD

ACCELERATED

RAPID SYSTEM ADOPTION

MAXIMISE OPERATIONAL EFFICIENCY

OUR APPROACH





MY EXPERIENCE

EXPECTED BENEFITS

Reduced transition period and fast paced adoption.

Minimised operational disruptions and downtime.

Immediate access to comprehensive patient information.

Immediate improved collaboration and communication among the clinical teams.

All staff start from some knowledge point.

CHALLENGES

Limited resources to support transition (*i.e.*, transcription and data catch up teams).

Staffing feeling overwhelmed.

- Limited staff confidence using the system
- Untrained staff during transition (agency/ bank)

No strategy to manage change and user resistance effectively.

Ensuring no data loss during transition.

No time for adaptation to change.

All staff start from some knowledge point.

FOR CONSIDERATION

Balancing the advantages of rapid deployment with potential challenges.

Engage your early in the project.

Comprehensive Planning: timelines, milestones, resource allocation, and risk mitigation strategies.

Training Plan: designed to help staff to adapt to the change. Make sure staff feels confident.

Do not ignore **testing** and future state validation.

Ensure adequate **Early Life Support** available including floorwalkers.

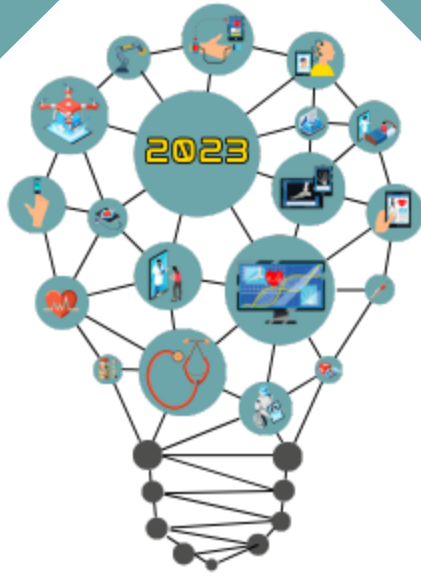


THANK YOU

Filipe Alves

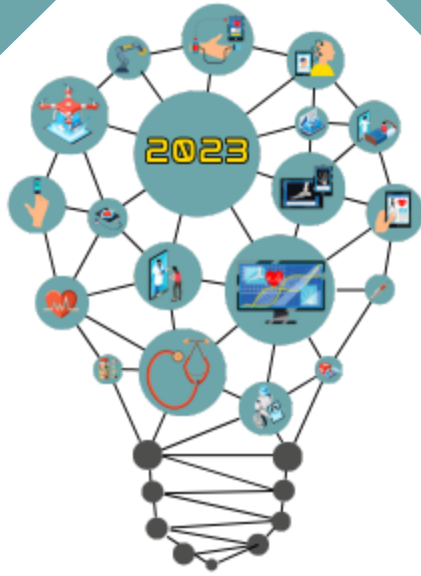
 filipej-alves

 @filipej_alves



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**Thank you for attending the
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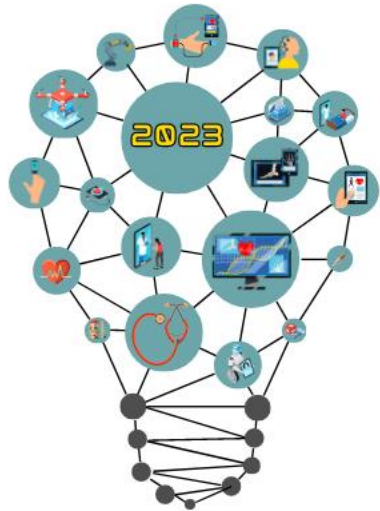


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Conference in February 2024...**





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virtually

Agenda for today:



Wednesday 1st November | 15Hatfields, London