



WELCOME TO

The NHS Innovation Conference: Hospitals of The Future



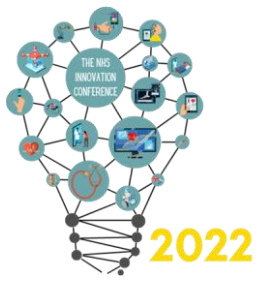
Check Out Our
Agenda Here...



Wednesday 17th November 2022- 10:50am – 15:00pm – GoTo Webinar

Please remain logged in, the conference will begin shortly.

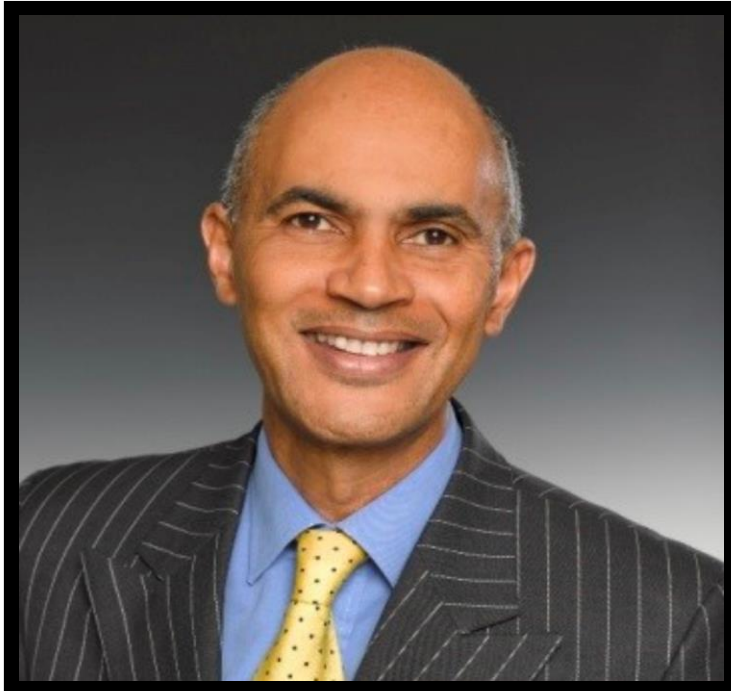
Conference hosted by Convenzis Group Limited



The NHS Innovation Conference: Hospitals of The Future



SPEAKING NOW



Alan Davies MBA

Director of Innovative Programmes and Partnerships
Health Education England

I will be discussing...

“Building on from
Topol...”



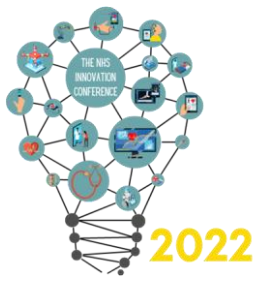
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UP NEXT...



DNV Imatis



The NHS Innovation Conference: Hospitals of The Future



SPEAKING NOW



Baldur Johnsen

Vice President International
Business - Imatis



Roberto Carletto

Business Development
Manager - DNV Imatis

We will discuss...

“Silent Hospital”



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SPEAKING NOW



Ben Panton

Senior Digital Partnerships Manager
NHS Arden & GEM CSU

I will be discussing...

“At home Diagnostics:
Revolutionising
Endoscopy Services”

At home diagnostics: Revolutionising endoscopy services

Ben Panton
NHS Arden & GEM CSU

NHS Innovation Conference
17 November 2022

www.ardengemcsu.nhs.uk



Session overview

- ✓ About NHS Arden & GEM CSU
- ✓ Digital Transformation and Service Redesign
- ✓ The diagnostic challenge
- ✓ Harnessing innovation
- ✓ IntelliGI
- ✓ CESCAIL
- ✓ Scaling innovation
- ✓ Questions



About NHS Arden & GEM CSU



Arden and Greater East Midlands
Commissioning Support Unit

OUR CUSTOMERS



90+

Working with a customer base of 90+ organisations across health and care systems

- NHSE
- ICSs
- ICBs
- Trusts
- Primary Care
- Local Authorities

OUR BUSINESS

£95m
Turnover 2021/22

£34m
Generated in new business 2021/22

OUR PEOPLE



1,000+
Multidisciplinary staff

OUR DIGITAL SOLUTIONS



Accelerating digital transformation



Scaling digital diagnostics



Providing IT support for over 60,000 devices

Embedding resilient connectivity solutions



OUR ACCREDITATIONS

INVESTORS IN PEOPLE™
We invest in people Silver

INVESTORS IN PEOPLE™
We invest in wellbeing Gold



Digital Transformation & Service Redesign



- Digital Transformation & Service Redesign
- Partnerships/Stakeholder Collaboration
- Remote monitoring
- Remote diagnostics
- Connectivity



The diagnostic challenge



The growing demand for diagnostic procedures, combined with limited clinical capacity and greater infection control measures, has proved increasingly challenging for the NHS to meet.

Each year, over
2 million
endoscopies are scheduled
through the NHS

Endoscopy waiting lists had
reached
435,000
in January 2022

THE TIMES

Black Panther star Chadwick
Boseman dies of cancer aged 43

**The
Guardian**

Bowel cancer checks at record high after
Deborah James death, says NHS

Bowel cancer is
responsible for
16,000
deaths each year

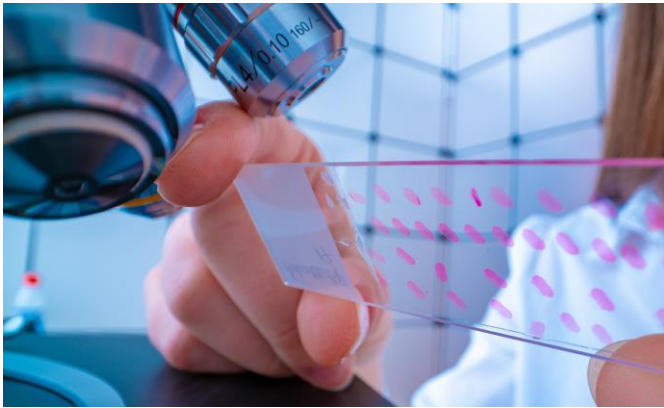
**EARLY DIAGNOSIS
IS VITAL**

Bowel cancer is treatable and
curable especially if
diagnosed early. Nearly
everyone survives bowel
cancer if diagnosed at the
earliest stage.



Harnessing innovation

Innovation in pathways and technologies, such as moving diagnostic capacity into the community, is helping to tackle the challenges and give citizens greater control and choice over their care.



Community Diagnostic Centres



Colon Capsule Endoscopy

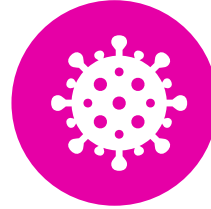
- Effective triaging of patients
- Reduces the number of in-clinic appointments
- Releases pressure on clinician time and facilities
- Slow to adopt in England but current 11,000 patient trial underway.



The introduction of at-home diagnostics has been enabled by:



**Connectivity
improvements**



**Increase in home
testing – for and
because of COVID**



**Changing mindsets re
self-care and patient
control**

This pilot project brings together partners with clinical, transformation and technical expertise :



IntelliGI



- 1 Develop a 5G-connected **‘smartbox’** with everything a patient needs to self administer, under medical guidance, a colon capsule endoscopy
- 2 Develop **Standard Operating Protocols (SOPs)**
- 3 Test the **delivery** and set up process
- 4 Pilot the procedure with **40 patients**



“Through the application of 5G technology, it is feasible that patients can swallow the capsule and undertake the whole process in the comfort of their own homes. As we strive to build the evidence base, we believe that many of these procedures could potentially be undertaken each year easing the burden on the NHS and reducing stress and uncertainty for patients.”

Ramesh Arasaradnam OBE, Senior gastroenterologist at UHCW



Capsule Endoscopy delivery at Scale through enhanced AI analysis

Project scope: Evaluate how effective AI can be in performing a preliminary analysis on camera images from CCE

Clinical Lead



AI Lead



Project Lead



674 patients with
lower GI symptoms
referred for CCE

AI-enabled pre-reading

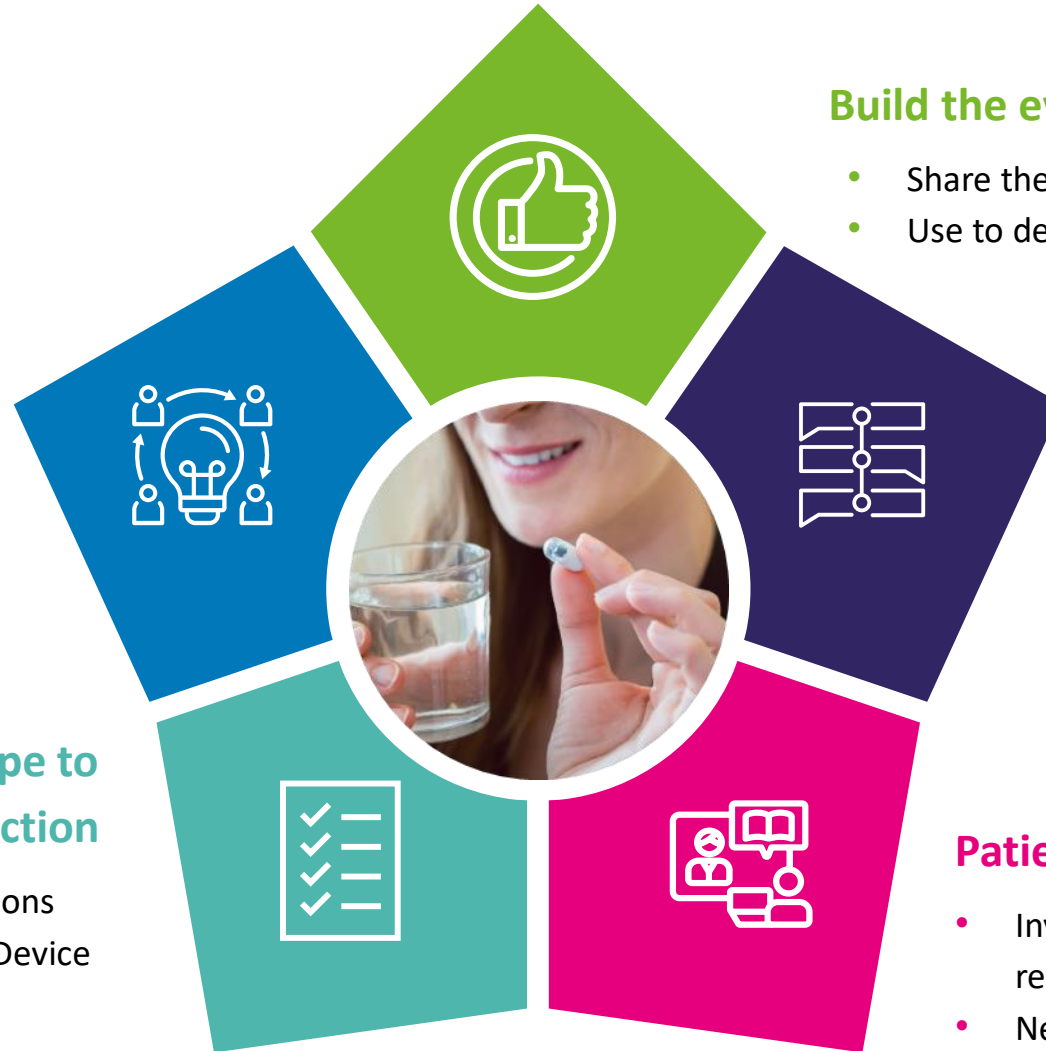
Standard clinician
analysis

Clinician validation

Report signed off and
final diagnosis

Comparison of
pathways

Scaling innovation in endoscopy



Clinical engagement

- Clinical champions
- Getting Trusts involved early in projects

Build the evidence base

- Share the results and learnings from trials/pilots
- Use to develop robust business cases

Pathway design

- Develop consistent pathways that can be adopted/modified by other providers
- Work closely with NICE to certify pathways

Moving from prototype to production

- Achieve necessary certifications e.g. Software-as-a-Medical-Device
- Commercially viable

Patient experience and feedback

- Involve patients in defining aims and requirements
- New pathways need to be acceptable to patients

Any questions?

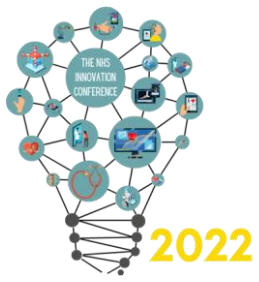


Get in touch with us at:

 www.ardengemcsu.nhs.uk

 @ardengem

 contact.ardengem@nhs.net

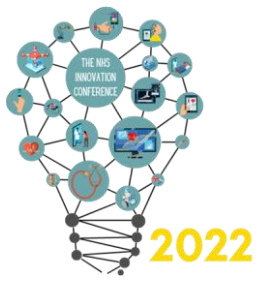


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COMFORT BREAK

Please remain logged in, the conference
will begin shortly.



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SPEAKING NOW



Videha Sharma

NHS Clinician and Lecturer in Health Informatics
University of Manchester

I will be discussing...

“Designing a
Pharmacogenomic
service for the NHS”



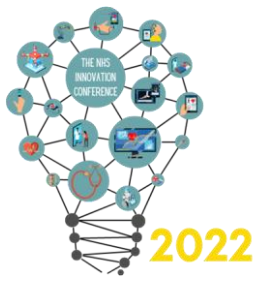
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UP NEXT...



Piota



The NHS Innovation Conference: Hospitals of The Future



SPEAKING NOW

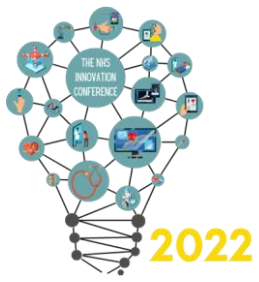


I will be discussing...

“Case Study - Piota
Healthcare Apps”

Chris Elkin

Head of Healthcare
Piota Healthcare Apps



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SPEAKING NOW

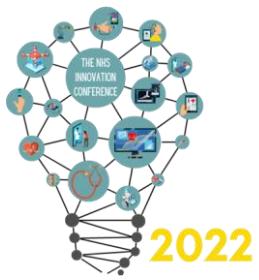


I will be discussing...

“Patient Led Laboratory
tests from Home”

Professor Timothy McDonald

Consultant Clinical Scientist/NIHR Fellow
Royal Devon University Hospital



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SPEAKING NOW



Nuala Mountain

Business Development
Manager - Iron Mountain



Alistair Doe

Business Development
Director - Iron Mountain

We will discuss...

“The Journey To
Paperless Patient
Records and Improving
Business Outcomes”



The Journey To Paperless Patient Records and Improving Business Outcomes

How technology can streamline data, reengineer processes and increase efficiencies.



YOUR HOSTS



Nuala Mountain

Business
Development Manager
Iron Mountain



Alistair Doe

Senior Solution Sales
Specialist
Iron Mountain

WHY IRON MOUNTAIN?



Iron Mountain supports healthcare in delivering on the strategic paperless directive



68

Exabytes of data and 1 billion medical images managed



2500+

Global hospital clients



850M+

Patient records stored



500

We are dedicated to security and often named in the security 500



95%

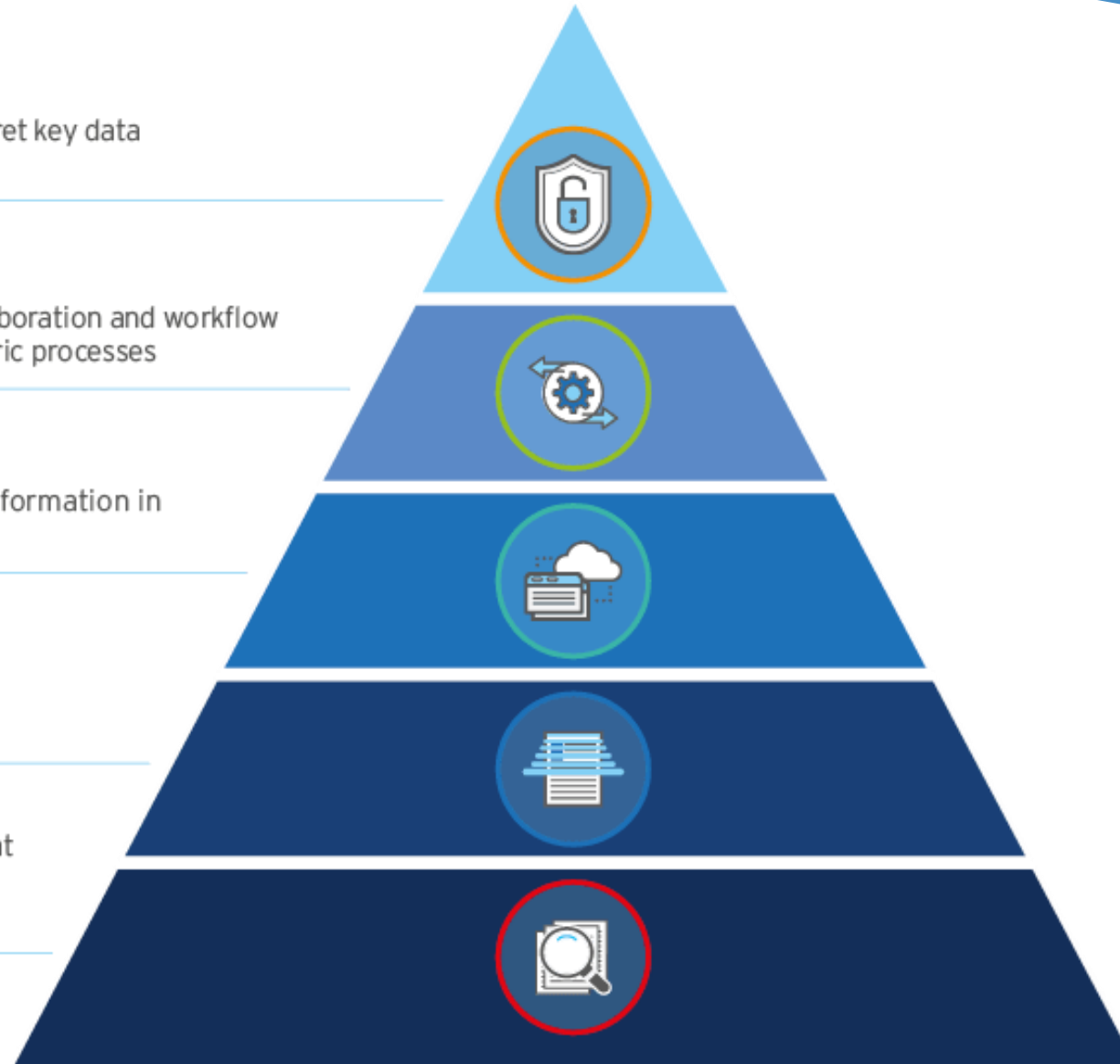
Of the Fortune 1000 trust us to manage and store their most valuable information

We are a lead supplier on the recently launched NHS England Dynamic Purchasing System (DPS) framework as well as a range of other frameworks, including LPP, ESPO, H.T.E. and CCS.

Your DX Journey

Where are you?

- 5 UNLOCK** View and interpret key data to identify patterns and trends
- 4 AUTOMATE** Enable collaboration and workflow automation for document-centric processes
- 3 STORE** Access digitised information in future-ready repository
- 2 DIGITISE** Go paper-free or paper-light
- 1 IDENTIFY** Determine what should be digitised, stored or defensibly destroyed



The Challenge

Increased strategic focus on digitisation and interoperability:

‘By the end of 2024/25 we expect to have digitised the health and care system and connected it together’

Digital Health and Care Plan Engagement Exercise

- Clinical backlog means even greater need for space and staff requirements
- Lack of systems to support interoperability
- Each Trust/ICS/ Primary Care provider will have different levels of digital maturity
- Large quantities of legacy paper still exist
- Pressures on real estate
- Significant staff numbers who could be better used elsewhere
- Drive for patients to ultimately access their own records

Primary Care

Lloyd George Digitisation

- National programme to digitise GP records
- Delivery of a fully managed end to end service
- Records integrated within the users clinical system
- Creating new working space
- Access to a complete digital record at the point of care
- Improved patient outcomes

4.9m

Patient Records

510

GP Practices

981m

Images to be scanned



Barnsley NHS Foundation Trust



CHALLENGE

Barnsley Hospital NHS Foundation Trust wanted to digitise 184,000 patient records, optimising clinical efficiency and administration while creating a future capability for patients to view their records online.



SOLUTIONS

Delivering a fully integrated end-to-end EDMS and digitisation solution, Iron Mountain provides file collection, indexing, imaging and access to records via a secure platform that is fully integrated into Barnsley's EPR system.



RESULTS

Along with time and space savings and decreased risk of loss or inadvertent disclosure Barnsley can drive more value from patient data through integrated case management, better decision-making and efficient digital workflows. Patients will also eventually benefit from remote access to records.

"It's easier to see associated symptoms and conditions, aiding decision-making throughout the patient journey; from consultation to diagnosis and treatment."

BARNSELY HOSPITAL
NHS FOUNDATION TRUST



- Improved clinician and patient experience
- Reduced risk of privacy breaches plus time and space savings
- Future-proofed solution enabling patient access to records
- End-to-end data security with clear compliance audit trails

THE SOLUTION



A FULLY INTEGRATED END-TO-END
EDMS AND DIGITISATION SOLUTION

A service which can include:

- Daily record collection
- Complex preparation / indexing
- Imaging
- Access to records via EDMS platform
- Secure, fully-auditable destruction of records post-scanning

RESULTS

- Time and space savings - removing physical records from workflow
- Change of mindset, encouraging digital-first mentality
- Repurposing estate for improved value
- Decreased risk of loss or inadvertent disclosure
- End-to-end data security with clear compliance audit trails
- Improved shareability of records
- Increased alignment with interoperability model
- More value from patient data through integrated case management, better decision-making and efficient digital workflows
- Future-proofed service where patients can also eventually benefit from remote access to records.
- Contribution to cost improvement plans

**IMPROVED
EXPERIENCE
FOR CLINICIANS
AND PATIENTS**

**LESS TIME SEARCHING,
MORE TIME
DIAGNOSING AND
TREATING PATIENTS**



HOW

IM Delivers in Four Categories

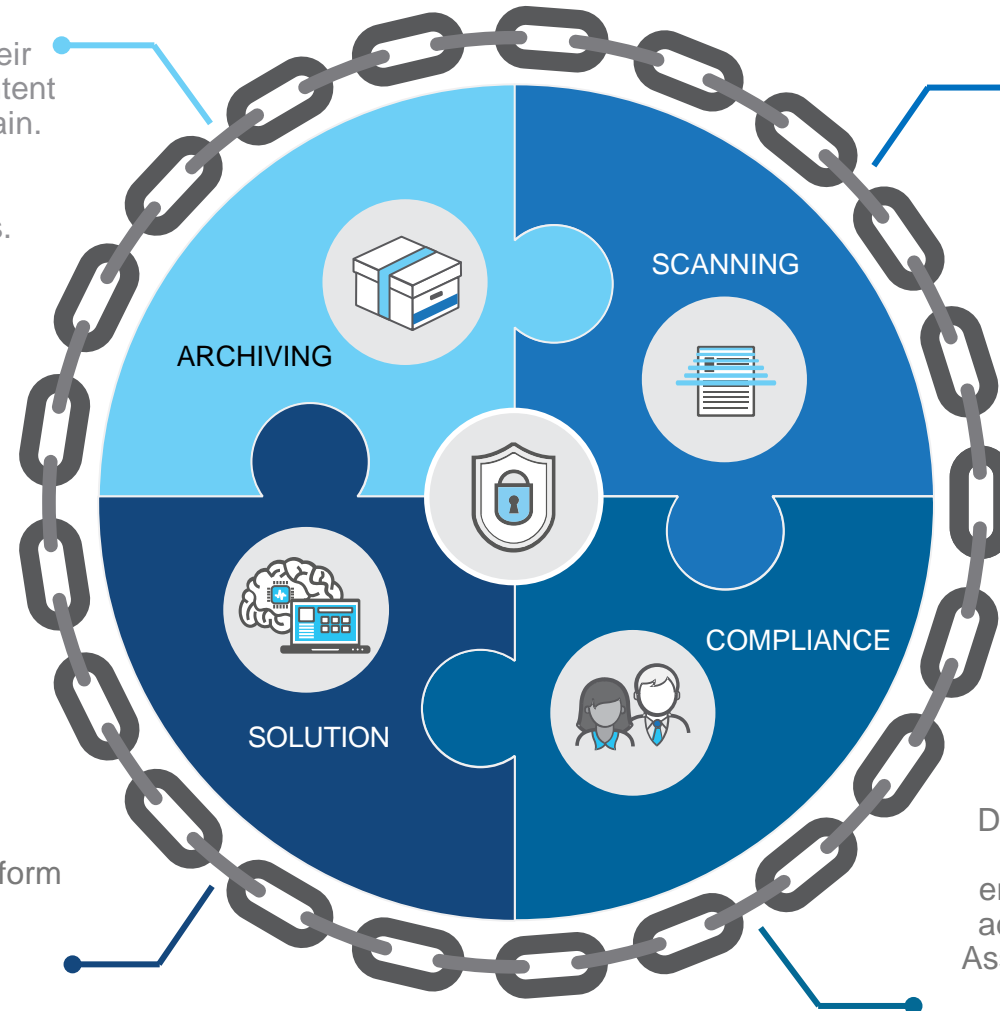
We're focused on delivering business outcomes and we'll bring in the best technologies and standardised processes to deliver for our customers

ARCHIVING

Customers will have their their most valuable content stored with Iron Mountain. eSearch hosted to integrated extended metadata requirements.

SOLUTION

InSight Platform enables secure digital storage and retrieval using a single platform which interacts between physical documents and Customer's other systems.



SCANNING & TRANSCRIPTION

IM will be scanning the required secure files, which can scale to other functions if required.

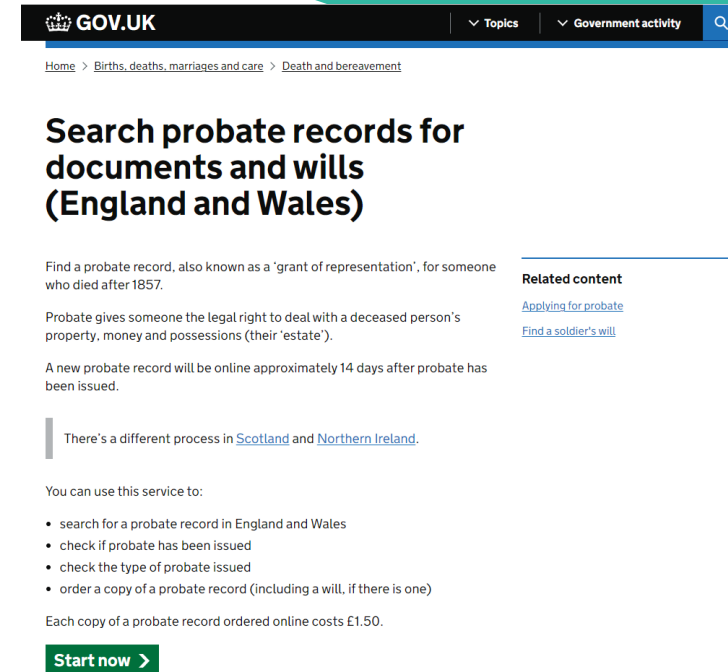
COMPLIANCE

Delivering Policy Centre and Information Governance to ensure retention policies are adhered to and kept current. Assist with fulfilling regulatory compliance.

National Repository as a platform

Converting physical archives into one virtual platform

- A need to access and share hard-copy documents or microfiche from a physical library in response to requests from the public.
- Different formats including ledgers, printed or handwritten text or notes, photos and microfiche film.
- Now, records live in one central database, irrespective of original format.
- Specific content elements within large files can instantly be pinpointed, many of which may have been unlinked or unsearchable before.
- Faster access to more accurate information drives improved cross-department collaboration and public services.
- Citizens experience faster, more accurate government services.



The screenshot shows the GOV.UK website interface. At the top, there is a navigation bar with the GOV.UK logo, a search icon, and dropdown menus for 'Topics' and 'Government activity'. Below the navigation bar, there is a breadcrumb trail: 'Home > Births, deaths, marriages and care > Death and bereavement'. The main heading is 'Search probate records for documents and wills (England and Wales)'. Below the heading, there is a paragraph: 'Find a probate record, also known as a 'grant of representation', for someone who died after 1857.' To the right of this paragraph is a 'Related content' section with two links: 'Applying for probate' and 'Find a soldier's will'. Below this is another paragraph: 'Probate gives someone the legal right to deal with a deceased person's property, money and possessions (their 'estate').' Below that is a paragraph: 'A new probate record will be online approximately 14 days after probate has been issued.' Below this is a paragraph: 'There's a different process in [Scotland](#) and [Northern Ireland](#).' Below this is a section titled 'You can use this service to:' with a list of four bullet points: 'search for a probate record in England and Wales', 'check if probate has been issued', 'check the type of probate issued', and 'order a copy of a probate record (including a will, if there is one)'. Below the list is a paragraph: 'Each copy of a probate record ordered online costs £1.50.' At the bottom of the page is a green button with the text 'Start now >'.

Summary

IMPROVED CITIZEN AND CLINICIANS EXPERIENCE

ENABLEMENT THROUGH DIGITISATION OF DIGITAL ASSETS

LESS TIME SEARCHING MORE TIME DOING





IRON
MOUNTAIN®

QUESTIONS



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SPEAKING NOW

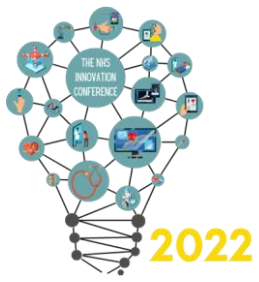


Stuart Hosking-Durn

Head of Central Operations
University Hospitals of Morecambe Bay NHS Foundation
Trust

I will be discussing...

“Learning from Crisis:
Innovation in Pandemic
and Key Learnings”



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SPEAKING NOW



Michael Watts

Associate CCIO

University Hospitals of Derby and Burton NHS Trust

I will be discussing...

“Digitalising Patient Flow
- The Barriers and how
to overcome them”

Digitalising Patient Flow

A Junior Doctors Story



Aims

- Optimising patient flow
- The benefits of digital
- Understanding technology's impact on patient flow
- How to implement digital and its barriers

Who needs to hear this talk

- **Thought leaders and clinical Innovators**
- **Change enthusiasts**
- **NHS intrapreneurs**
- **NHS leaders**

Introduction

My Why

On a mission to create patient-centric, safe and impactful healthcare through digitalisation

- **NHS Doctor**
- **Associate CIO, University Hospitals of Derby & Burton**
- **Co-founder and Managing Director of a Digital Health SME**
- **NHS England Clinical Entrepreneur and Mentor**
- **MBA Student**



**Dr Michael Watts MBChB BSc
(Hons)**

The perfect flow



Understanding Patient Flow

The Benefits

- **Minimising waiting times and delays in care**
- **Improving clinical outcomes and patient experience**
- **Increased efficiency, less duplication**
- **Reduced costs (less overtime, waiting list initiatives, locums)**



The ultimate benefit to the NHS is **REPUTATION**

The digital patient flow

The Benefits

- **Centralised data storage**
- **Improved auditability**
- **Accelerated communication**
- **Reduced paper usage**



SaaS

The Benefits

- **Data-driven decision making**
- **Clicks and mortar organisation**
- **Improved communication**
- **Staffing support**



Robotic process automation

The Benefits

- **Limiting variation and human error**
- **Eradicates behavioural biases (eg operational vs clinical)**
- **Automatic reporting**
- **Improved interoperability**



The Benefits

- **Trend recognition**
- **Decision-support algorithms**
- **Predict number of admissions / transfers / discharges**
- **Predict resource requirements**



The Risks

The Risks

- **Decision-support risks**
- **Accountability**
- **Managing adaptive technologies**



Case Study



Thank you

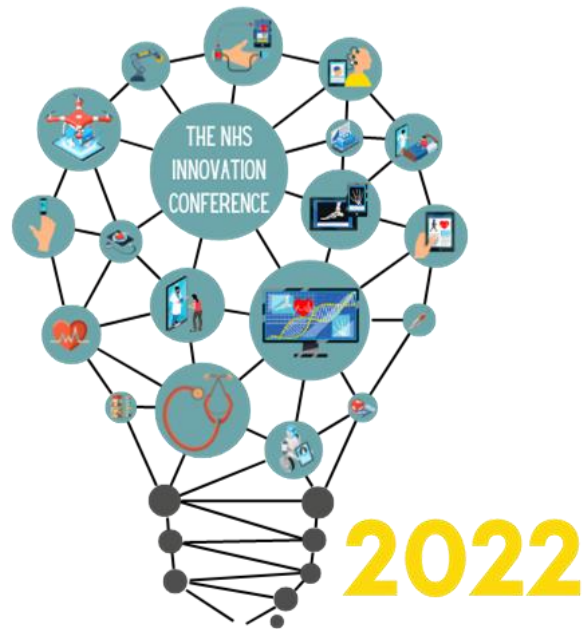


michael.watts5@nhs.net





THANKS FOR ATTENDING



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REGISTER FOR OUR UPCOMING EVENTS!



**Outpatient
Transformation
Conference
2022**

