


# DIGITAL ICS PLAYBOOK

NOVEMBER EDITION





# Any image, anywhere.

An introduction to Enterprise Imaging (EI) for Integrated Care Systems and regional networks

A strategically focused and well-executed Enterprise Imaging (EI) strategy can deliver benefits far beyond simple storage consolidation.

EI focuses on converging not only images and data across service lines and specialities – but also clinical workflows, business and IT resources, financial optimisations and clinical business intelligence. EI manages diagnostic imaging across a network of care providers, such as a regional imaging network, an Integrated Care System (ICS) or multiple NHS Trusts – supporting imaging departments which generate and report images using their own unique workflows.

The migration to regional systems is a welcome innovation for Agfa HealthCare. As pioneers of EI, we have a rich history of delivering and supporting inter-connected image management solutions. See how Enterprise Imaging solutions can support your Integrated Care System or regional network.

> [www.agfahealthcare.com/ics](http://www.agfahealthcare.com/ics)

#ElforICS #Enterprisemaging



Enterprise  
Imaging  
Platform

**AGFA**   
HealthCare

# A Note From The HTN Team

Here at HTN we're thrilled to share our latest Digital Playbook. Following the release of our first edition earlier this year, we're back with a sequel – a second instalment featuring the latest solutions and innovations from providers working across the health tech sector.

This November 2021 edition focuses on the idea of a digital Integrated Care System (ICS), in line with our most recent one-day HTN Now event on the subject, which saw the release of a series of live and recorded webcasts from health tech experts across industry and the NHS.

With topical and relevant healthcare areas in mind – such as the NHS care backlog – we take a look at the most pressing areas of change and transformation, such as strategies, pathway redesign, Electronic Patient Records (EPRs), system-wide solutions, digital and data platforms, Shared Care Records, integration, and population health management.

Across the following 21 pages, you'll find out more about suppliers, projects, case studies, updates, and all the great work that is going on across the sector.

Whether you are pondering procurement, seeking a solution, or just interested in finding out about the latest innovations and ideas that are out there, this playbook will provide you with plenty of inspiration.

While you're reading, remember to pause on our page dedicated to the HTN Awards 2022. Created to recognise the teams and technologies that have made a huge difference over the past 12 months, these awards are a great way to share what your organisation has been working on – as well as simply to give a nod of recognition and reward to those who have been grafting behind the scenes to transform services and systems.

For the 2022 version of the awards ([page twenty](#)) we are including a number of new categories – allowing your company, primary care provider, ICS, or trust, the perfect platform and opportunity to share its work.



# A Note From The HTN Team

In the rest of our welcome note, we'll take a quick but closer look at the subjects, products, ways of working and themes that we'll be showcasing throughout this guide. This is just a taster of what you can expect...

**Regional Radiology Collaboratives** – Spanning two pages, Yorkshire Imaging Collaborative shares its experiences as an early adopter and of planning a multi-site project, while Afga HealthCare explains how lessons can be learnt from existing imaging networks.

**Improving Collaboration and Communication** – Hable, a Microsoft adoption and change management partner, walks us through how it can help ICSs with staff adoption of Microsoft 365 and smarter ways of working.

**Remote Monitoring and Virtual Wards** – On this subject, we hear from Doccla, which works with NHS organisations on virtual wards, to help with the delivery of personalised care and tackle challenges around capacity and waiting times.

**Care Journey Orchestration** – Lumeon is our guide through the area of care journey orchestration, highlighting the importance of smart scheduling and booking systems, appointment reminders, discharge coordination, and the overall benefits of adopting an orchestration engine.

**Patient Flow** – If you want to find out more about what's available in the world of patient flow management, visit Alcidion's page about how its Miya Precision module can help to facilitate timely care and efficient logistics support.

**Patient Records Management** – Read about a number of different examples and approaches to patient records management through CCube Solutions' section, which explains different models used by a number of hospitals and trusts.

**Digital Considerations for ICSs** – eConsult Health, which operates in the digital triage and remote consultation market, shares its top considerations for ICSs that are still developing digital strategies.

**Empowering Citizens and Healthy Populations** – EMIS explains its approach to interoperability, solutions that empower patients, improving care pathways, and how insights from clinical data interrogation can inform local care planning.

**A Call for Collaboration** – Helicon Health puts out a call to ICS leaders, inviting collaboration to develop an evidence base for prevention, in the area of digital transformation in populations with multiple long-term conditions.

If any of the topics have piqued your interest, dive into our playbook and read on. In the meantime, don't forget to save our HTN Now dates in your diary, so that you can keep track of upcoming live events ([page 16](#)), and also make note of our next round of HTN Features (page six).

Thanks once again for reading, we hope you enjoy the latest playbook – stay tuned for future editions.

The HTN team wishes everyone a fantastic festive season and a happy 2022!





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## **Agfa Healthcare**

Regional Radiology Collaboratives: A Clinician's Exchange Network

## **Agfa Healthcare**

Lessons Learnt From Existing Imaging Networks

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## **Lumeon**

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## **CCube Solutions**

Supporting NHS Trusts and Health Boards

## **EConsult**

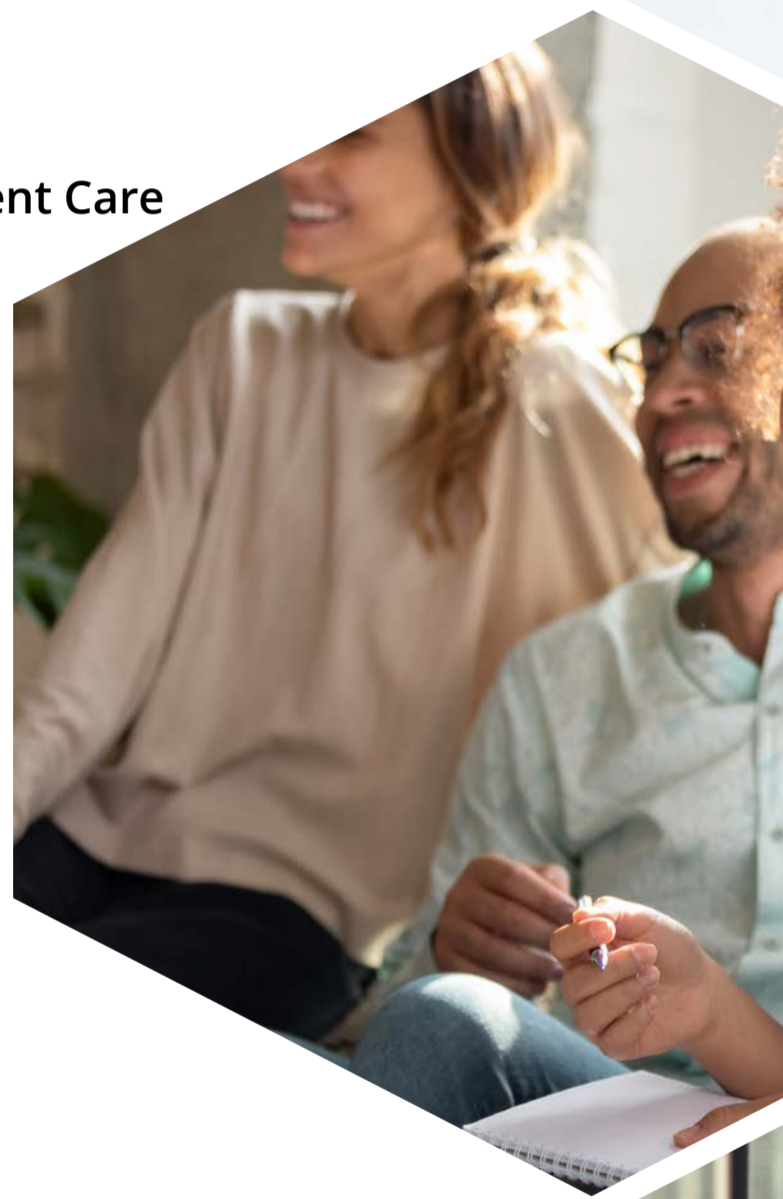
Considerations for Developing ICSs

## **Emis Healthcare**

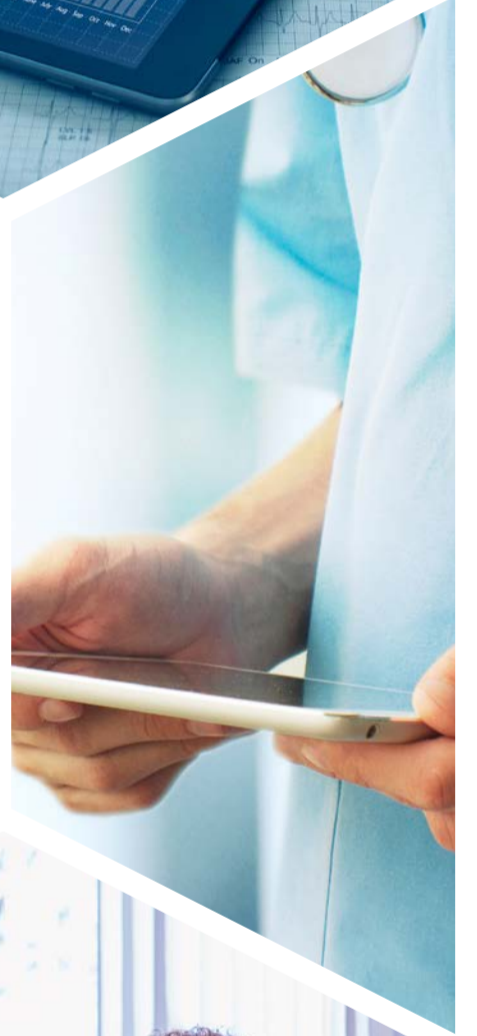
Your Trusted Partner in Health Tech

## **Helicon Health**

An Invitation to Integrated Care System Leaders



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# Regional Radiology Collaboratives: A Clinician's Exchange Network

**“Once the Yorkshire Imaging Collaborative had all eight trusts connected with the Agfa HealthCare Xero Exchange Network (XEN), our vision was complete.” Dr Daniel Fascia, Clinical Lead for the Yorkshire Imaging Collaborative.**



**DR DANIEL FASCIA**  
CLINICAL LEAD FOR THE  
YORKSHIRE IMAGING COLLABORATIVE



**Integrated Care Systems are scheduled to be in place across in England from April 2022. One early adopter, the Yorkshire Imaging Collaborative, shares their experience on the planning, execution and outcomes of a multi-site, inter-connected project.**

There can be no doubt that there lie huge challenges ahead for NHS trusts and partners working to establish the Integrated Care System (ICS) methodology into 2022. Initiating such regional networks, and migrating from others, requires a huge investment of time and resource, and inevitably leads to disruption amongst an already overloaded community. However, Dr Daniel Fascia, Clinical Lead for the Yorkshire Imaging Collaborative (YIC) and Consultant Radiologist at Harrogate & District NHS Foundation Trust, believes that the new model offers a great opportunity to place power in the hands of regional leaders who are closer to the specific challenges of each area. Agfa HealthCare, the collaborative's partner for their Enterprise Imaging platform, interviews Dr Fascia on his findings.

Integrated Care Systems are seen by NHS leaders as the future of health and care integration in England.

**As one of the early adopters of collaborating systems, how would you recommend a trust approaches this model?**

The Yorkshire Imaging Collaborative is well-prepared for the inception of this model – the collaborative has already been working in an ICS, which we created ourselves, in the form of the West Yorkshire Association of Acute Trusts (WYATT) three years ago. The Yorkshire Imaging Collaborative, one of the earliest programmes, was a pilot where, along with Pathology, we converged clinicians from the eight hospitals and proposed that we work together on a regionalised radiology service.

For a trust approaching an ICS, one key factor to consider is that, whilst people are receptive to the longer-term value of autonomy, they can be resistant to a “top down” management approach. The YIC tried to implement the project in a way that each trust retained both their identity as a hospital, and the flagship of their specialisms. This involved a programme of regular engagement workshops where the wider collaborative was involved in designing the future service.

**How do you foresee the NHS migrating to this model on a national level? How can a hospital expect to benefit from being part of a regional network?**

We will certainly see a mass scale rollout of the ICS model – it is the chosen direction of the NHS after all. In essence, this means that regional health boards need to reform and create new roles as they will become a more important factor in deciding the shape of regionalised care. This will prove more challenging in some regions and create work where this model will be an evolution to the current service, but it also places the power in the hands of these regional leaders who can be closer to region-specific issues, as well as engaged in the population and demographics for whom they provide care.

I have great optimism for this. If ICSs are executed successfully, it will mean a more personalised healthcare service for each region. However, I also have a slight apprehension about creating additional tiers of administration – it will be interesting to see how these evolve as the ICS structures are rolled out.

**The YIC deployed Enterprise Imaging and the XERO Exchange Network (XEN). Within your role as a Radiologist, what can you tell me about the clinical realisations of exchange networks?**

The YIC initially embarked on eight Agfa HealthCare PACS replacements across the region, which evolved into their Enterprise Imaging platform. We became quicker

with each of the deployments, such that it was very smooth implementation at the final and largest site, Leeds Teaching Hospitals. With a sophisticated image management system in place, the YIC could then adopt Agfa HealthCare's XERO Exchange Network (XEN). This is the tool that truly supports and realises the YIC mission statement - all images and reports should be available at the point of care - whenever a patient attends an appointment - anywhere throughout the network.

We are now seeing the results of huge numbers of images being accessed on a cross-site basis – thousands every month – with lots of immediate measurables being linked with this access. As an example, we are able to see priors when a patient presents in an emergency situation - where they can't even identify themselves. In addition, patients with complex needs are now able to have scans closer to home in a hospital that is convenient for them, whilst the prior images are still readily available for radiologists to offer a better quality of comparison report.

As the project has evolved, the YIC has also seen some early changes in the utilisation of the Image Exchange Portal (IEP), which was the previous, manual way of transferring images. Some of the more forward-looking clinicians have reduced their dependency on this service already.

**How do you envision the future of clinical information exchange? What would be the ideal moving forward?**

The YIC is really an early adopter of a much bigger strategy - connecting the entire country to enable access to patients' medical imaging records wherever they are, not just within a single network. To reach this point, the NHS needs each region, and their appointed ICS, to create a YIC equivalent, and form their own network. Once complete, we can index these networks to create a national medical imaging index. What the NHS ultimately wants to achieve is that all medical records follow that pattern and form a fully digitalised patient journey, which is completely independent of location.

**If you were implementing the XEN again, what would you do differently?**

Considering the disruption during the last 18 months, we made the decision to accelerate the deployment of XEN and make it a priority. The pandemic meant that we had a pressing requirement for telemedicine and telehealth, with many patients needing to be displaced. We engaged with Agfa HealthCare to launch the XEN across the collaborative as a matter of urgency. In fact, the original plan was to launch the exchange network at a much later date, but, on reflection, I would suggest that the XEN should have been launched and publicised as soon as we could connect even one site to the next. We would have naturally experienced some disparity - building an incremental demand would have incurred the collaborative questioning why images are available from one hospital but not another – but I don't see that as a negative. Instead, it shows the demand for this degree of accessibility. I think it's a lessons-learned that a project board can extract from the tech industry – “when is the best time to launch?” “Right now,” is the answer.

You can find out more about Agfa HealthCare's support of Integrated Care Systems within their Enterprise Imaging approach, as well as reach out to their regional networks advisory, [here](#).





**ROBERTO ANELLO**  
MANAGING DIRECTOR, AGFA HEALTHCARE  
NORTHERN EUROPE

## With Integrated Care Systems (ICS) becoming a statutory requirement from April 2022, and a need for sharing data and care pathways as the standard, Roberto Anello, Managing Director for Northern Europe at Agfa HealthCare, explains how lessons can be learnt from existing imaging networks, and how Agfa HealthCare's best-of-suite Enterprise Imaging is primed for this approach.

Imaging networks, or collaboratives, were born from the necessity of high vacancy rates across imaging services, ageing imaging equipment and rising demand. Their aim was clear - to make best use of the resources in a region, in order to improve patient outcomes. This concept of sharing, be that data, workflows, expertise, technology or personnel, is exactly what is required within the ICS model. The spirit of what imaging networks are trying to achieve aligns perfectly and we can learn from their success.

At Agfa HealthCare, we have been working with trusts for many years to establish imaging networks and we are proud of what our clients have achieved with us. Within our portfolio, we offer trusts best-in-suite imaging solutions as they work towards the development of regional systems, imaging networks and ICSs. We have a host of installed clients across the UK and Ireland, covering prestigious teaching hospitals, including Sheffield and Leeds Teaching Hospitals, renowned specialist hospitals such as the Royal Brompton and Harefield, and several District General Hospitals spanning the region.

Our engagement with these trusts has afforded us an early opportunity to develop a blueprint for how we can support cross organisational workflows and collaborative ways of working. One example is the [Yorkshire Imaging Collaborative \(YIC\)](#). In 2017, Yorkshire was in the unique position in that contracts for many of its PACS were set to expire. There was a disparity between service demand and capacity, which was further enhanced by the integration challenges between the regional PACS. This lack of interoperability meant that trusts were forced to rely on an Image Exchange Portal (IEP), a national image transfer service, which was reportedly unstable and fluctuated in its efficiency. The group formed a project board to review the issues at hand and seek an enterprise-wide IT solution to support the collaborative working vision.

After a competitive tender process, Agfa HealthCare was awarded the contract to provide our Enterprise Imaging (EI) solution at the eight NHS trusts across the region. In the first stage, we implemented our best-in-class XERO Universal Viewer across the group, followed by the XERO Exchange Network (XEN) roll-out, which allowed images and reports to be viewed from anywhere across the entire collaborative. This functionality releases boundary sanctions, offering care centres closer to the patient's home (reducing the need to travel unnecessarily), to be better informed whilst still providing clinicians access to those images and the ability to report quickly and better informed. This level of autonomy brings flexibility to the clinician - they are readily equipped to work from home. However, in an emergency, a wider availability of clinical reporting services is accessible. Ultimately, Agfa HealthCare's inter-connected solutions can ensure that the right resources are maximised - supporting the goal of there being no delay in the patient's diagnosis and care.

Considering the proposed 2022 adoption of ICSs, we must remember that the YIC was unique in that many of the PACS contracts were set to expire at the same time. At a national level, this is unlikely to re-occur - the market is currently very fragmented with long-standing contracts for different imaging systems from varying vendors. Our best-of-suite EI has the ability to share

images and workflows - the cornerstone of our application - but also offers vendor-agnostic capacity, which is vital in a multi-vendor environment. We have the expertise to interface and complement varying legacy systems within a trust or ICS, offering unique propositions that bring real value and benefit beyond the scheme and enable patients to be empowered in their own health and wellbeing.

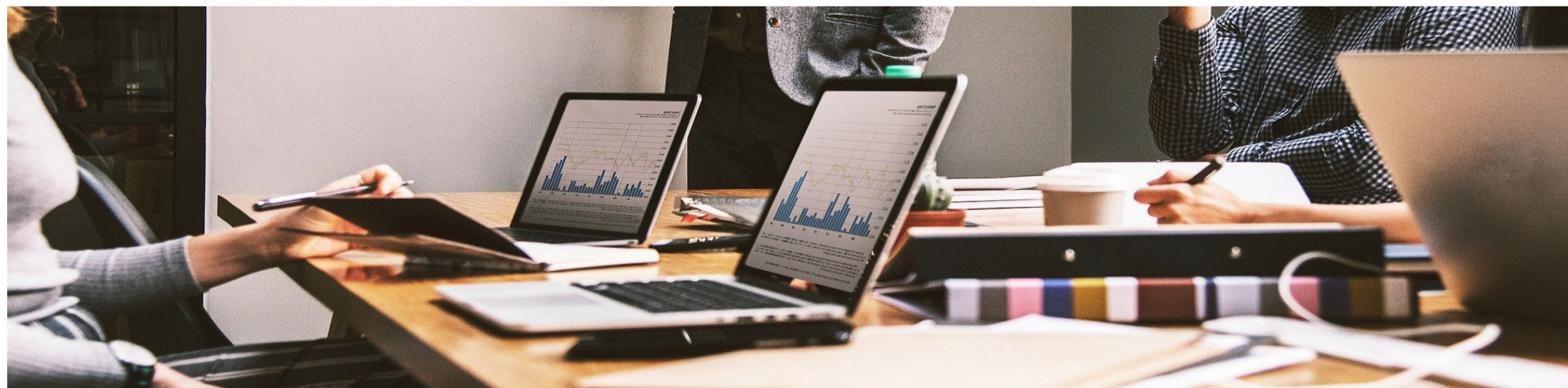
Equally, the myriad of pre-installed national systems means that newly formed groups cannot contractually adopt an all-encompassing system as a clean replacement. We do understand that not everyone can, or wants to, accommodate a complete system overhaul - we recognise that the market is not configured for this. Again, Agfa HealthCare's Enterprise Imaging solution has been strategically built to offer a modular service for multiple Imaging Ologies - meaning that older and expired technologies can be replaced on an individual or piecemeal basis to build up, as legacy contracts expire, to the fully-fledged EI platform over time.

Agfa HealthCare is uniquely partnered with Microsoft to provide MS Teams integration. We've seen how successfully Teams is being used across the NHS, and so Agfa HealthCare has embedded our image viewing platform into the application to enable consultant workgroups to review studies from wherever they are based. In addition, we offer extensive Augmented Intelligence capabilities for CT Lung and Mammo - these are currently being deployed with clients and use class-leading AI engines to support better-informed clinical decisions and improved patient outcomes.

Agfa HealthCare, and its leading Enterprise Imaging platform, is set to give the NHS that ICS blueprint - our sophisticated workflows seamlessly inter-connect across regions to facilitate quicker and smarter care, as well as allowing healthcare providers to benefit from specialist skillsets across the entire health service. We pride ourselves that our clients are offered a continual improvement and innovation hub that boosts capacity, enables quicker decisions and improves outcomes. As trusts up and down the country look to get a handle on (and reduce) the elective-surgery backlog, Agfa HealthCare is helping them to enable faster diagnosis among those presenting with new conditions.

As Managing Director for a very active region, I believe that our unique solutions, leading technology partnerships and our best-in-suite portfolio are perfectly aligned to support what good looks like for an ICS. This is why an early adopter, the Yorkshire Imaging Collaborative, chose us, and why they remain a satisfied investor into our company and solutions. Our 150+ years of experience enables us to offer proven benefits for a broad spectrum of stakeholders, across several ologies, making us a resilient and low-risk option for such a vital public health service.

You can find out more about Agfa HealthCare's support of Integrated Care Systems within their Enterprise Imaging approach, as well as reach out to the Regional Networks advisory, [here](#).



# Improving Collaboration & Communication Across An ICS

Over the course of the last few months, Microsoft adoption and change management partners Hable have been working with an ICS in England to 'change the hearts and minds' of their people, helping every staff member to embrace a new and smarter way of working using Microsoft 365.

In order for new technologies to be successful, people need to embrace a new and more modern way of working. With the introduction of N365 (the name given to Microsoft 365 within the NHS), the leadership within the ICS we are working with were concerned that this technology required a higher level of digital maturity and confidence than many of their people had.

To bridge that gap, they knew they would need specialist support, which is where Hable came in. It was our job to change the hearts and minds of their people, both behaviourally and culturally, to bridge the gap between how people worked today and how they could in the future with the power of N365.

#### What did we do for the ICS?

To start any change program, we first explore two things; what is the future way of working that the ICS would like to see from their people? And what is the starting point today?

Our initial discovery sessions uncovered a very typical picture; widespread use of email for collaboration on documents, version control issues, and too many back to back and bloated meetings. All of which were affecting productivity and impacting workload.

There was generally a low maturity in the use of Teams and other N365 apps, which we've seen as a trend on a national scale.

So, how do we tackle these problems?

First, we take the future way of working, and we break that down into smaller "sprints". Our change methodology tackles large transformation projects by breaking them down into smaller, marginal gains, and this is what we did with the ICS.

With the Assessment and Planning stages complete, we then moved onto the Implementation phase. Internal Communications are a key lever to influence the mindset of the people needing to go through change, and we used that to great effect within the ICS.

With the mindset ready, we then move on to the very practical work of enabling people to learn new skills. We focus on delivering high quality, engaging learning opportunities so that every learner is catered for.

The key focus is confidence; once people are confident then they are more likely to explore the technology in a self-directed manner. We provide that through learning assets (guides/videos), interactive learning workshops and workplace coaching.

Lastly, we recruit, train and engage a proportion of the workforce as 'champions' which are the key to any successful change programme. The most powerful form of advocacy is from a peer, so providing the ICS with a powerful group of change 'champions' enabled us to scale our impact and provide the ICS with a sustainable approach to continual change.

#### Hable Case Study - Surrey ICS Customer Story

## HTN Features 2022

Email [marketing@htn.co.uk](mailto:marketing@htn.co.uk) for more information

### January

Remote Monitoring  
Shared Care Records

### February

Data Strategy  
Digital General Practice

### March

Digital Innovations Supporting ICS

### April

Artificial Intelligence

### May

Patient Flow





**DOCCLA**

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## Putting Virtual Hospital Wards at the Centre of Future Patient Care

**doccla**  
THE VIRTUAL WARD

21st century healthcare is going beyond the limits of physical buildings and in-person care. The changes coming are reimagining healthcare to balance the right care for each patient.

Innovative digital technologies provide clinicians with new ways to connect with patients and deliver safe, effective care from the home, as well as in the hospital ward.

At Doccla, we work with the NHS to make virtual hospital wards a core part of modern healthcare. Our remote monitoring platform keeps vulnerable patients out of the hospital, helps get recovering patients home sooner, reduces A&E admissions and ease waiting list pressures.

The right care, at the right time. Delivering personalised care in the right setting is essential. This can only happen if institutions are underpinned by digital infrastructure to create the right circumstances.

In the face of challenges, e.g. reduced bed capacities, Covid and long surgical waiting times. How can secondary health institutions provide person-centred and convenient services?

We have a solution: virtual wards. They really work and take just days to implement.

For many patient groups the best care option is to stay in hospital. However, for some patients the reverse is true. The best option is to be monitored remotely with appropriate technology

and protocols, allowing better care to be provided at lower costs. Doccla's virtual wards are live across multiple NHS trusts and can support the clinical pathways for 20+ patient groups, including in pre- and post-op procedures.

Doccla is facilitating monitoring respiratory patients in Northampton, pre/post op patients in Hertfordshire, heart patients in Cambridgeshire and more.

Our virtual wards help clinical teams to spot early signs of deterioration, re-prioritise waitlists and support facilitated early discharge

### How our virtual wards works

Our end-to-end remote patient monitoring platform helps clinical teams to care for patients more quickly, effectively and safely.

We provide a complete clinician-led service that allows staff to monitor the vital signs of a patient remotely, using best-in-class wearable technologies either continuously or intermittently, via a secure web browser.

A welcome reception from patients and clinicians - patients and clinicians alike are enthused by the benefits offered by Doccla.

We have the highest patient compliance rates in the industry, exceeding 96%, even among older and multimorbid patients. A survey among Doccla patients, as well the clinical teams, has shown very strong support for the Doccla modern model of care.



# CARE JOURNEY ORCHESTRATION



Doctors, nurses, and specialist staff face an uphill battle dealing with fragmented care processes, and siloed IT systems – let alone documenting care. These issues create disjointed patient experiences, while care teams are forced to take the load, handling manual, repetitive administrative tasks. The UK healthcare system requires a new playbook – one that helps orchestrate patient care journeys – taking advantage of new technology to ease the burden on staff and deliver more convenient and proactive experiences.

At Lumeon, we help NHS, private, and specialist healthcare providers deliver efficient, tailored care journeys meet the needs of every patient. With a comprehensive orchestration engine used by more than 70 healthcare providers, Lumeon's automation experts will help your organisation transform care to meet patients, on their terms. We work with you to design and deploy automated and coordinated care journeys that work in symphony with your care teams, care processes, and EMR / EHR systems.

The unique approach enables a broad variety of solutions, including:

**Pre-operative readiness**

Manage more patients through efficient pre-op readiness, by coordinating tasks, visits, tests and patient communications. Identify low-risk patients and fast-track them through virtual touchpoints only.

**Discharge coordination**

Reduce length of stay by introducing digitally coordinated discharge, with task allocation and timers, seamless information exchange and a real-time patient progress dashboard.

**Appointment reminders**

Reduce DNAs using automated patient appointment reminders, via SMS, email or IVR. Enable two-way messaging so patients can easily request to cancel or reschedule. Available in 40+ languages.

**Scheduling and Booking**

Easily book patients into the optimum slot with the right resource using our smart scheduling capability. Reduce gaps in diaries and auto-calculate appointment sequences.

**Patient recorded outcomes**

Capture patient recorded outcome measures (PROMs) via secure eform or SMS. Manage low-risk patients using automation while escalating those not recovering as planned to care teams.

**Chronic disease monitoring**

Monitor patients remotely using SMS, eform, or device integration while sending automated guidance. Escalate patients with low scores for review and modify their care pathway accordingly.

**Patient initiated follow-up**

Sometimes healthy patients don't need in-person follow-up appointments. Deploying patient-initiated follow-up (PIFU) via eforms helps identify these individuals and reduces unnecessary appointments.

**Patient initiated follow-up**

Sometimes healthy patients don't need in-person follow-up appointments. Deploying patient-initiated follow-up (PIFU) via eforms helps identify these individuals and reduces unnecessary appointments. Assign patients to risk-based pathways and automatically recall them at regular intervals for review or repeat screening. Send appointments and rescheduling options.

**Nuffield Health Scales COVID-19 Rehabilitation Programme with Lumeon**

Lumeon, the care journey orchestration leader, is enabling Nuffield Health's COVID-19 Rehabilitation Programme, the UK's first specialist programme to support patients recovering from the effects of long COVID. Integration with Lumeon's Care Journey Orchestration platform has allowed Nuffield Health to scale the programme across 40 regional centres to date. COVID-19 patients are often discharged from the hospital with no formal recovery plan, resulting in a

longer recovery process and prolonged side effects. The effects of COVID-19 leave some people with lasting physical damage and scarring to their lungs, leading to difficulty with breathing and mobility or exacerbating underlying health issues like heart disease, diabetes, and mental health conditions. Nuffield Health's programme blends physical therapy and emotional support to help participants recover from lingering symptoms of COVID-19. Over the course of 12 weeks, participants work with a rehabilitation specialist to design a recovery plan consisting of at-home and in-person exercise sessions, emotional support calls, and access to a community of participants where they can share their experiences. Programme experts also share advice on coping with fatigue, managing breathlessness, anxiety, improving sleep, and eating for recovery.

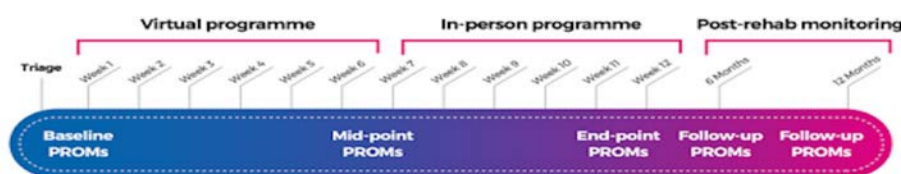
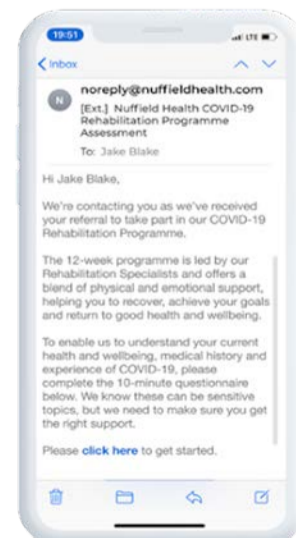
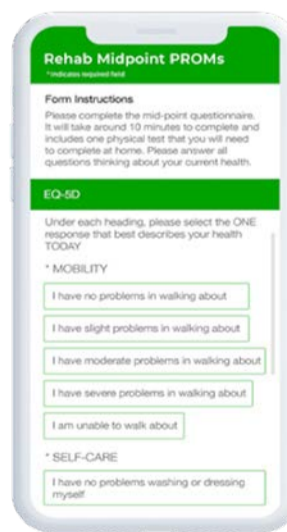
**Chelsea and Westminster Hospital launches innovative digital care pathway for new mums**

Chelsea and Westminster Hospital NHS Foundation Trust has launched a new digital postnatal discharge system, powered by Lumeon technology. This innovative software will improve the patient experience, increase efficiency and reduce costs at the hospital. The system is funded by CW+, the official charity of Chelsea and Westminster Hospital NHS Foundation Trust.

Lumeon's Care Journey Orchestration solution digitises the postnatal pathway. All activities and tasks are orchestrated and automated in real time, with the ability to get a good overview of the care being delivered. Digital dashboards allow multi-disciplinary team members to quickly see what they need to do next, and by when, for each patient to meet their discharge slot. Staff are able to communicate more effectively with new mums, and provide a more holistic overview relating to them and their baby, in regards to getting them ready for home.

## KEY BENEFITS OF THIS APPROACH INCLUDE:

- + Better care for everyone, every time. A protocol-driven care journey means the right care professional is tasked at the right time, with a shared view of progress.
- + Deal with your patient backlog. Fast-track, low-risk patients through virtual processes and use automation and decision support to increase care team capacity.
- + Help patients participate in their care. Use digital care journeys to support patients to self-manage, adjusting care processes based on patient e-questionnaires.
- + Our approach extends the reach of your care operations, leveraging your EMR, with an orchestration engine that automates and coordinates workflow across patients and clinicians.





# MIYA PRECISION FACILITATING PATIENT FLOW

The balance between demand and supply is ever present for healthcare organisations. Balancing available resources to address competing priorities is a challenge when information is captured across multiple unconnected systems and, quite often, in spreadsheets or on paper. Realising a streamlined patient journey in that kind of disjointed environment is close to impossible. Clinicians and managers need access to real-time consolidated information to make educated and effective decisions. Adopting a digital solution with the necessary level of interoperability is the most viable solution to this challenge. Consolidating and harmonising data from disparate systems to a meaningful, consistent and engaging user interface means that clinicians and managers can make decisions with confidence.

## The Patient Journey

The patient journey across a care continuum is the transition of a patient through a series of clinical processes, each with some form of logistics support. These processes include a range of clinical interventions and are critical to achieving the best clinical outcomes. They draw on the scarce, high-value skills and experience of clinicians and place significant demand on the available resources. Logistics are required to support these clinical processes. Services such as referrals, scheduling, transfers and delivery of materials (e.g. medications, medical devices) facilitate care. Logistics involve many categories of staff across multiple departments. If these logistics are poorly structured, they waste valuable clinical time and inhibit optimal care delivery. Technology can facilitate this critical healthcare delivery process by consolidating disparate inputs and presenting the resulting information in an intuitive real-time visualisation that is aligned with the range of end user needs.

All relevant information needed to support clinicians in their management of the patient stay needs to be available in real-time and presented intuitively. It must highlight key information concerning the patient status to inform decision making, optimise resource utilisation and manage patient access. Consolidating information from a range of disparate sources means that clinicians will have streamlined access to an overall picture of what is happening with their patients, their service and their care locations. Of course, integration and interoperability are key to achieving this source of consolidated information. It allows relevant information to be ingested from third party systems across the entire health service and present this reliably in real-time in a meaningful and actionable display that directly contributes to patient care and outcomes. The value of such consolidated inputs is ultimately assessed by the ease of use. This requires a focus on presenting information in a way that is immediately understandable, highlighting critical details for clinicians to better manage across the patient journey and enable proactive planning. A patient flow system should ensure that every patient journey is safe, clinically effective, satisfying for patients and staff, and as efficient as possible.

## A Patient Flow System - Miya Flow

Alcidion's Miya Precision module, Miya Flow, underpins the optimal sequencing and communication of clinical and logistics processes to facilitate timely and effective clinical care, with efficient logistics support to overcome unnecessary delays and promote timely safe delivery of care. It supports clinicians by maintaining a focus on the patient's clinical risk profile and the changes over time. It also embeds efficient logistics support, to minimise the duration and cost of a patient journey and maximise patient and staff satisfaction. Clinicians will have access to an extensive scope of information in real-time. Miya Flow's user centred design presents information in a meaningful paradigm ensuring that they can immediately see where and when they need to take action. Clinical decision support enhances this visualisation to provide prompts via relevant notifications. The inherent flexibility of Miya Flow supports different service locations across a healthcare organisation with differing information needs. It can be configured with a choice of 200+ display and interactive columns and measures to align with the specific information needs at ward, unit, program, site and organisational levels, or clinical service. Whether location, service or cohort based, specialist patient lists can be configured with information tailored to their specific needs. Our design goal for Miya Flow is to realise a significant time dividend to both the care team and support staff, every time they use the solution to optimise patient flow. This goal is realised through the solution linking clinical processes with fast, effective supporting logistics.

## Across the Enterprise - Miya Command

At the enterprise level, a graphical, real-time view of the status of all resources including patients, beds and wards informs allocation and utilisation decisions. It provides visibility of current/expected occupancy, resource mismatches, under/over resourced services and expected patient movement. As the overall journey is made visible via Miya Flow, downstream clinical units and services can then act to "pull" the patient along the care pathway - a major paradigm shift from the traditional "pushing" of patients up the care chain. Executive and operations staff can view a summary of the overall status of the healthcare organisation. This view highlights current occupancy, resourcing, performance and planned hospital movements. It provides the management team with a birds-eye view of the organisation, referencing real-time information. Decisions can then be made with confidence to ensure streamlined patient journeys and resource assignment.

## About Miya Precision

Alcidion's Miya Precision is a modular next-generation healthcare analytics platform that has the potential to address clinical problems with the application of Artificial Intelligence (AI), Clinical Decision Support (CDS), Machine Learning (ML) and Natural Language Processing (NLP). Miya Precision facilitates a range of clinical and operational modules to address clinical workflows and manage the associated processes. It has the capability to establish a longitudinal patient record across all scales of healthcare organisation. The Miya Platform is an open standards-based platform that leverages the Fast Healthcare Interoperability Resource (FHIR) to overcome interoperability challenges and drive real change and improvement hospital-wide. The real-time analytics available provide a powerful insight into patient risks and value-based care.

# DIGITAL

## CCUBE SOLUTIONS

[WWW.CCUBESOLUTIONS.COM](http://WWW.CCUBESOLUTIONS.COM)

CCube Solutions has been supporting NHS trusts and health boards to realise tangible benefits, as part of transformation programmes which are focused on patient records management.

Realisable benefits include:

- Instantly available medical history
- Improvements in staff & patient safety
- Avoids unnecessary admissions
- Remote consultations & virtual clinics
- Operational efficiencies
- Multiple appointments per visit
- Financial – three sites delivered c.£35M savings to the NHS over 10 years.

In this article we highlight how trusts are using the records management platform from CCube Solutions, with slightly different approaches.

### **Avoiding scanning legacy paper – the Papworth Hospital model**

Tertiary Trust, Papworth Hospital, installed CCube Solutions' electronic document records management, workflow and eForms, to create an electronic medical records system.

The focus is on the patient's pathway, from the moment an individual is referred to hospital, so that referral paperwork and medical notes are indexed, shared and information automatically routed. Return on investment includes a reduction in operational costs by removing physical paper records storage and management (cost over £200Kpa).

### **Aintree University Hospital NHS Foundation Trust**

Aintree University Hospital decided to outsource to an external scanning services provider. CCube Solutions EDRM software was installed and used to deliver the digital records at the point-of-use.

The trust uses CCube's forms recognition technology to automate the recognition and classification of pre-printed medical forms, which make up 95% of medical files.

- £1M annual savings
- 30% space gained in new £45M building
- Access required information within three mouse clicks

### **North Bristol NHS Trust becomes paperless**

North Bristol NHS Trust approached the transition from paper to digital medical records by both setting up its own in-house scanning bureau and working with a third-party outsourcing specialist, to do the back scanning. The in-house bureau is used for day-to-day scanning. Returns from the project have been significant:

- A scan-on-demand model to digitise patient medical records saving over
- £1.3M within four years
- EDRMS is an 'invest to save' initiative with the system paying for itself based on a reduction in operating costs
- Outsourced digitisation of over 295,000 active patient records, amounting to
- c.55M pages.

If your Trust is looking to transform patient and records management, please contact CCube Solutions by email to [info@ccubesolutions.co.uk](mailto:info@ccubesolutions.co.uk)



ccube solutions  
delivering digital healthcare



## ECONSULT

[WWW.ECONSULT.NET](http://WWW.ECONSULT.NET)

**W**ith combined experience of over 15 years in the digital triage and remote consultation market within the NHS, eConsult Health and its recent acquisition, Q doctor, have worked with multiple NHS organisations across primary and secondary care. Our aim is to help patients to see the right clinician, in the right place in the first instance. We work with our customers to redesign service delivery whilst improving patient access and journeys.

ICSs are about collaboration to create efficiency across the healthcare system with the ultimate goal to improve patient outcomes. This is a goal eConsult is very much aligned to and working towards. Here, we highlight our considerations for developing ICSs.

**Consider digital solution consolidation:**

It's not efficient from a financial, educational or technology 'stack' perspective to use multiple providers. Verticals such as video consultation, telephone consultation, online consultation (for efficient triage), and SMS messaging have quickly merged onto common platforms. Find a provider that delivers on all, flexibly, with ongoing support for users.

**Consider digital exclusion:**

Around two in five patients aren't amenable to digital communications. NHSX's What Good Looks Like describes ensuring citizens' literacy and digital inclusion needs are suited. Ensure solutions employed accommodate both completely offline journeys and also journeys that allow for unexpected user difficulty or breakdown. An example of this is video consultation breakdown through poor WI-FI connectivity, where you might require an easy switch to telephone as a backup. That's why we're offering outpatient departments free pilots of our remote consultation solution.

**Consider brand awareness:**

Success will be linked to effective transformation and uptake, with solutions becoming part of the Standard Operating Procedure. NHS organisation branding is key to trust but clinicians, administrators and patients will inevitably see supplier names along their journey. Supplier awareness from different settings (e.g. having seen the name in their GP practice interactions and personally used the system) will help to build trust with providers.

**Consider in-product support:**

Support for digital solution rollout, particularly across multi-site settings like an ICS, can be time and expertise intensive. Often there are communication challenges not previously encountered or resourced for. Providers who support different user types responsively and accessibly give your own support resource further reach and effectiveness. Consider how and when providers offer you support (e.g. we provide live chat support alongside email, telephone and ticketing systems, from 8am to 8pm, seven days a week).

**Consider data control and transparency:**

Have your suppliers worked as a Data Processor for NHS organisations before? Do they have a good understanding of their role in processing data in accordance with NHS organisation instruction? Typically few have done this at ICS level, and so there is a need to communicate the nuances of system-wide views of online activity, and associated security considerations. NHSX's What Good Looks Like encourages regular review of data strategy and cyber security; digital platforms should be able to evidence their capabilities and experience in these fields, specific to the NHS.

We're here to share our expertise with developing ICSs, so please feel free to [reach out to us](#).



**econsult**



**ICS**

1 →

**30 November 2021**

Cyber Security,  
Analytics and Data

2 →

**9 December 2021**

Electronic Patient  
Records

3 →

**14 December 2021**

Digital Strategy,  
Transformation and  
Change

4 →

**10 January 2022**

Digital Mental Health

5 →

**February 2022**

Digital Primary Care







# HTN NOW

The HTN Now health tech tour continues in November, when we bring together the health tech community to share, discuss and collaborate on a variety of topics focused around health technology for the now.

The sessions we host typically last up to one hour, providing practical advice, insight and learning from healthcare digital teams across the country. Tune in to hear about their approach, what they have done, what worked well, the challenges they face and what's coming up next.

For this two-day virtual event we welcome Liverpool Women's NHS Foundation Trust, The Dudley Group NHS Foundation Trust, Royal National Orthopaedic Hospital NHS Trust, The Royal College of Paediatrics and Child Health, and Digital Health and Care Wales.

For more information on how to get involved with any of our upcoming events, please email our team at: [marketing@htn.co.uk](mailto:marketing@htn.co.uk)



# Your Trusted Partner in Health Tech

The challenge of providing care that is high quality, accessible and affordable, in the face of increasing demand and stretched capacity, can only be solved by thinking differently.

We at EMIS pride ourselves on our innovative solutions that are supporting newly emerging models of care. We have a long history of partnering with the NHS to achieve its vision of the future, and we share a passion for integrating systems to deliver better, more joined up care for patients.

With market leading technology supporting clinicians to deliver care across every major care setting, we're uniquely positioned to join up patient pathways, enabling integrated care and providing meaningful data driven insights and population health reporting.

#### Safe practice

For over 30 years, we've been delivering digital and data systems that are safe, robust, secure, sustainable and resilient. Digitally-enabled outcome-driven transformation is at the heart of safe care and, for over 10,000 organisations across the UK, EMIS clinical systems are central to this. We're experts in building solutions that are safe and effective for those who use them, informed by our in-house team of experienced clinicians and clinical informaticians.

#### Empowering citizens

As the first clinical system provider to enable patients to book GP appointments and order repeat prescriptions online, we've always understood the importance of empowering patients to manage their own health and wellbeing. Our suite of solutions ensure

patients are provided with a digital front door into healthcare services, from our Online Consult self-triage, through to clinically authored information and guidance. We're firmly focused on creating a seamless experience for both patient and clinician, improving outcomes through shared responsibility for health.

#### Improving care

By embedding our digital solutions across primary care, community, acute and in high street pharmacies, Health Systems have the power to transform patient pathways, reduce care inequalities and improve health and wellbeing - ensuring the right care in the right place, at the right time. At the point of care, our systems are supporting more meaningful patient interactions. Inbuilt clinical intelligence and decision support, along with automated processes, support safer, more efficient care.

Interoperability has always been, and remains, central to our strategy. By keeping the patient at the heart of what we do, we're supporting multidisciplinary teams to work together and break down organisational boundaries to deliver better, joined-up care.

#### Healthy populations

Insights derived from clinical data interrogation are essential to informing local care planning, and enabling a healthcare system that continually learns from and improves upon the care delivered. We're making it easier than ever before to securely query, explore and analyse patient data efficiently, to extract actionable insights that inform the implementation of new ICS-led pathways and population wide health management.

Not only can we support Health Systems to improve the health of the populations they serve, but we're enabling opportunities to be part of discovery and innovation at a national level, and beyond. Our focus is on creating positive change in healthcare and we believe this can best be achieved by working together and co-creating a research approach that meets the needs of an ever-changing healthcare landscape. Working in collaboration with academia, industry and other partners we're helping make it easier for ICS and patients to be part of clinical trials, real-world evidencing and the development of AI tools.

#### Find out more

To find out more about how we can support your ICS, email us at [talkto@emishealth.com](mailto:talkto@emishealth.com)





# An Invitation to Integrated Care System Leaders: Collaborate to Develop an Evidence Base for Prevention - Digital Transformation in Populations with Multiple Long Term Conditions

**H**ow does an Integrated Care Partnership develop an evidence-based approach to the implementation of infinitely scalable low cost digital models of care and prepare for digitally enabled integrated working?

Helicon Health is seeking to expand existing collaborations with Integrated Care Systems (ICS) and, in the process, to progressively share the learnings from current major projects with Integrated Care System development teams.

The hypothesis we set out to evidence and learn from with our customers and collaborators is:

“If information about patient behaviour, conditions and events captured from wearables, monitors and other smart technologies, can predict illness and demand for services, then providing these technologies to patients will enable [Integrated Care Systems] and providers to prevent or pre-empt illness and redirect demand, or design new services.”

ICS organisations have existed for some time, and most have digital initiatives that will hopefully positively impact population health and patient outcomes. But where is the evidence? To address this evidence gap Helicon Health, along with others, was selected by NHS England, SBRI Healthcare and other funders, to build an evidence base to underpin large scale transformations through people, process and technological changes. Some of these programmes go right back to the dawn of the company, and before, to the formation of the Centre for Health Informatics and Multiprofessional education at UCL.

Under carefully controlled conditions, Helicon Health invite nominated ICS representatives to learn about these initiatives so that place level leaders have the evidence and tools to formulate and articulate plans. Integral to this approach is the need to capture the voice of the people as stakeholders in change programmes – patients, clinicians, carers and families need to be insightfully represented.

This invitation is open to nominated ICS representatives and will involve working collaboratively with Helicon Health and our stakeholders.

LOOKING FOR YOUR NEXT

## EMPLOYEE OF THE MONTH?

Submit your job listing to [marketing@htn.co.uk](mailto:marketing@htn.co.uk) to see it featured on our list

Explore job listings at [htn.co.uk/health-tech-jobs](http://htn.co.uk/health-tech-jobs)

# HTN AWARDS 2022

The HTN Now awards 2022 share and celebrate innovations, teams and health tech suppliers that have made an impact throughout the year. The awards provide a platform to share these innovations and solutions to help shape future services and systems across health and care. If you would like to be involved in these awards, please email [emma@htn.co.uk](mailto:emma@htn.co.uk).

For the 2022 HTN Now awards, we have a range of different categories to help celebrate all aspects of technology in the health sector.

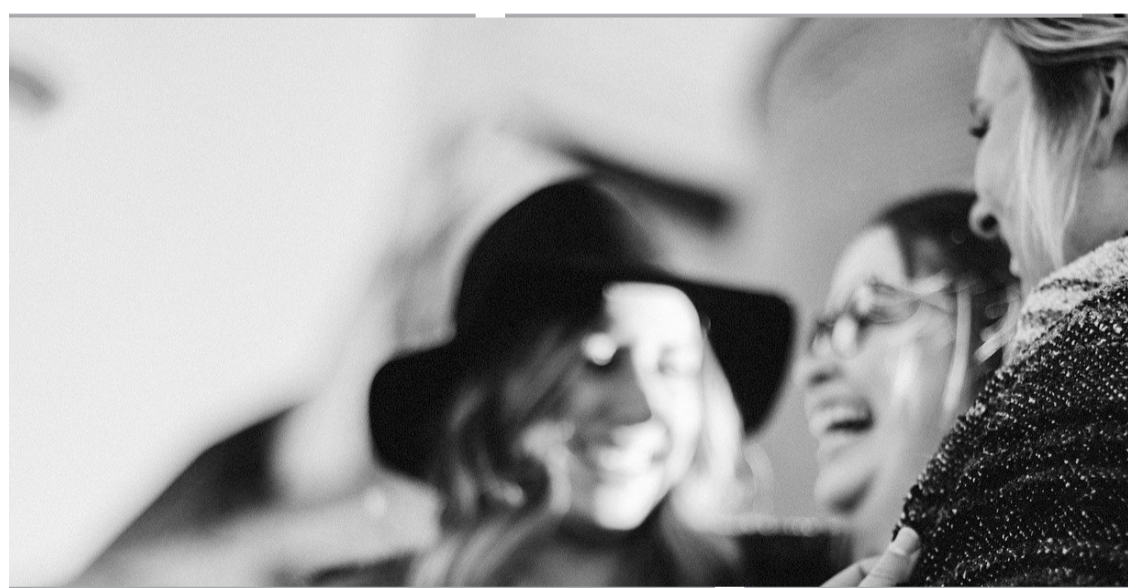
## Health Tech Leader of the Year

It's time to nominate a digital leader who is making a difference! We want to hear about someone who leads by example, nurtures great teams, acts with passion and is someone who you're proud to work with!

For this category, please nominate a peer and tell us what they do, how they work, and why they should be our national health tech leader winner. This category is for NHS employees to nominate their NHS Health Tech Leader of the Year.

## Health Tech Team of the Year

It's time to recognise your team and why it's so special. What makes your team stand out? In this category, we want to hear about your team, how you work, what you have achieved and why your team should be crowned the winner. This category is for NHS employees to nominate their NHS Health Tech Team of the Year.



**Health Tech Case Study of the Year**

If you have a great case study, tell us in this category. We want to hear the problem or challenge, as well as the approach, solution and what you achieved.

**Supporting Integrated Care System Transformation**

If your team or solution is supporting Integrated Care Systems, let us know how. In this category, we want to hear real-world examples and use cases supporting ICSs.

**SME Innovation**

This category is for new innovations; we want to hear about your solution and the problem it solves.

**Excellence in Remote Monitoring**

In this category, we want to hear about your technology and how it has supported patients and healthcare teams this year.

**Excellence in Data, AI and Automation**

If you're delivering excellence with data, adopting AI tools or using automation to improve processes, tell us about your project.

**Supporting Healthcare Teams Response to COVID-19**

If your team or solution has supported healthcare teams to respond and work through the pandemic, tell us about it.

**Making an Impact**

For this category, we want to see measurable benefits – tell us about the savings and benefits your projects have generated during the year.

**Excellence in Digital Pathways**

We want to hear how pathways have been redesigned and supported with technology. Tell us about your work in this category.

The awards are supported by a fantastic group of judges from a wide range of professions and settings. After the judges examine the entries, the HTN team will write a feature article for each category, to help share the projects and people behind them. We believe this acts as a great resource for anyone in the industry to learn more about each project, or entry, in the awards.

Finalists will receive a logo to use as they choose, and the awards features are included in our print edition.

Through an engaging digital awards evening, we share the entries, and announce the winners and highly commended, who each receive a trophy.

What are you waiting for? [Head over to our website to enter!](#)



# GET IN TOUCH



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