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FOR WHAT COMES NEXT

How techUK's SMEs can deliver the 10 Year Health Plan for England

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Content

Foreword

In the UK, small and medium-sized enterprises (SMEs) represent an overwhelming majority of the business landscape. According to the Federation of Small Businesses, SMEs account for 99.8% of all UK private sector businesses (around 5.5 million in total), offering approximately 60% of all private sector jobs, equivalent to around 16.6 million people. Within health technologies, around 84–86% of businesses are SMEs, and across the broader healthcare-supporting sector, SME representation is likely even higher - probably exceeding 99%, mirroring national trends.

The following evidence pack highlights a range of services SMEs are providing, specifically focusing on key themes of the 10 Year Plan: improving prevention and early intervention, enhancing health system efficiency and capacity, supporting workforce development and resilience, improving access to services and reducing health inequalities, empowering citizens through digital tools and self-management, and advancing data-driven decision making and innovation.

It is for these reasons that it is imperative that the SME community is not only supported but acknowledged for its critical contribution to the delivery of healthcare services. Within my role at techUK and on the NHSE SME advisory group, I see firsthand the incredible efforts SMEs go to enable change and drive improvement in healthcare delivery. However, I also see the many challenges that face SMEs that are specific to this size and scale of organisation. techUK, along with many others, is

continually striving to raise awareness of these struggles and apply practical measures and change to reduce the burdens SMEs contend with.

If you are a larger enterprise, a commissioner, or a regulator, we hope this pack makes you consider the ways in which you can use SMEs to drive innovation, support change, and deliver your objectives in the years to come as a critical component in a supply chain.

We hope that through the demonstration of the value SMEs can, do, and are bringing, it continues to raise the all-important questions on how we can do better for SMEs and create a more sustainable environment for them to flourish. In turn, this drives better healthcare delivery, a better economy, and a more stable environment for such a significant contributor to employment and healthcare provision.

- Sally Rennison, Chief Commercial Officer at Patients Know Best
  techUK Health and Social Care Council Member
  Member of the NHS England SME Advisory Group

Background

In July 2025, the UK Government published its vision for the future of healthcare in England. The 10 Year Health Plan for England set out a bold ambition to move the NHS from a reactive, hospital-led service to one that is preventative, community-based, digital-first, and patient-empowered.

Crucially, it positions technology and innovation as the critical enabler of this transformation, a move techUK has long advocated for. The plan echoes techUK's core policy priorities on digital infrastructure, procurement reform, and unlocking the power of data and emerging technologies.

SME's are crucial to the delivery of the 10 Year Plan. The latest statistics outline the importance of the SME community, which represents over 99% of the business population, accounts for 60% of UK employment, 48% of business turnover and contributes £2.4 trillion to the UK economy. Indeed, the importance of SMEs is particularly impactful in the healthcare industry, with recent research indicating that 83% of Healthtech companies are SMEs.

Therefore, techUK's SMEs stand uniquely positioned to turn the vision of the 10 Year Plan into reality. Our members work across all areas of health & social care technology, including frontline digitisation, digital diagnostics, AI-supported triage,

remote patient monitoring and data insights to transform health outcomes, reduce pressure on the NHS and pioneer frontline care solutions.

With agility, creativity, and cutting-edge technology, SMEs are uniquely positioned to help deliver on the ambitions of the recently published 10-Year Plan for Health. To showcase the role of SMEs, we have developed an evidence pack that highlights real-world case studies from our members. This publication will explore how digital innovation is transforming health and care delivery, improving outcomes, and building a more resilient healthcare system fit for the 21st Century.

1. From Hospital to Community: The Neighbourhood Health Service, Designed Around You

Technology is essential for shifting care from hospitals into the community. Digital tools can aid prevention and early intervention, thereby supporting people to manage their health at home and reducing the need for costly acute care. By rethinking services around individuals, technology empowers a genuinely neighbourhood-based health service.

RIVIAM: BaNES Community Wellbeing Hub uses RIVIAM to enable health, social care and VCSE's to co-ordinate care

Background and Challenge

RIVIAM's Multi-Agency Referral Hub is a secure, shared digital workspace that enables NHS, local authority, and third sector partners to coordinate support around a single record. This supports the NHS 10-Year Plan by shifting care into the community and replacing analogue processes with end-to-end digital workflows.

Health, social care, and VCSE partners needed to collaborate in real time, but they operated different IT systems, relied on phone calls, emails, and spreadsheets, and struggled to share information securely. This fragmented approach slowed decision-making, duplicated effort, and risked delays in providing people with the care and support they needed. Information was often stored in organisational silos, making it difficult for staff to see the full picture of a person's needs and to plan coordinated interventions.

In March 2020, as the COVID-19 pandemic placed extraordinary pressure on communities and services, six organisations came together to establish the foundation of what is now the Community Wellbeing Hub (CWH). Powered by RIVIAM's secure digital platform, the Hub has since expanded into a vital

collaboration involving 37 NHS, local authority, and VCSE partners. This growth reflects the urgent need for a new approach to working across organisational boundaries, where partners can safely share information, triage referrals, and deliver personalised and co-ordinated care.

The challenge extended well beyond the pandemic. The Hub has steadily adapted to new crises: helping those isolating during COVID-19, offering practical and emotional support for Ukrainian refugees settling in BaNES, and tackling the cost-of-living crisis with solutions for housing, debt advice, mental health, and community support. Each new challenge uncovered the same core issue - services worked hard in isolation, but without a common system, they risked duplication, gaps in care, and delays that directly affected people's wellbeing.

The background to the CWH is therefore rooted in necessity and innovation: establishing a single, multi-agency point of collaboration to break down historic barriers between systems. The challenge has always been how to ensure citizens receive timely, person-centred assistance when and where they need it, regardless of which organisation is contracted to deliver it. By uniting partners around a shared platform and purpose, the Hub has transformed fragmented service delivery into integrated care and support for the BaNES community.

Delivering a fourfold return on investment, the CWH in Bath & North East Somerset (BaNES) connects 37 organisations and exemplifies effective cross-agency collaboration. Since March 2020, it has managed over 32,000 referrals and supported more than 15,000 people, adapting to COVID-19, refugee resettlement, and the cost-of-living crisis.

RIVIAM provides a secure digital platform for referral and case management. It integrates with clinical systems, including hospital EPRs, TPP SystmOne, and the NHS Personal Demographics Service. For discharge, the Hospital to Home module connects directly to the acute EPR; a single assessment triggers multi-agency referrals to ensure support is in place before individuals return home.

Developed through co-design, the Hub now includes a dedicated hospital team and tools that streamline discharge processes. The impact consists of faster, more coordinated care, less duplication, and improved continuity through the BaNES) Integrated Care Record. Since mid-2023, it has supported 1,200 discharged patients via 3,300 referrals, delivering clear, person-centred outcomes.

Digital Solution

The Multi-Agency Referral Hub is built on RIVIAM's secure, cloud-based digital platform, designed to provide a single, shared view of an individual's needs across health, social care, and VCSE partners. Its foundation is a shared referral and case management system, where authorised professionals can access an auditable record of documents, notes, assessments, and activities. This guarantees that everyone involved in an individual's care has the same information, reducing duplication and enhancing continuity. Referrals are intelligently routed to commissioned pathways, with demand and progress monitored from start to finish.

To support safe and efficient operations, the Hub incorporates robust operational controls and security features. Role-based access ensures each agency only sees the information relevant to its services, while Red/Amber/Green (RAG) ageing views help prioritise workloads and highlight urgent cases. A full activity audit trail provides transparency and accountability, which is vital when multiple agencies are working together.

The system also simplifies digital intake and tracking of outcomes. Referrals can be submitted using a brief online form, either filled out directly by the citizen or by staff assisting over the phone. This efficient process allows for effective triage and reliable data collection, while outcome reporting tools offer insights into service effectiveness and demand patterns.

Importantly, the platform integrates with acute and primary care workflows. Through its Hospital to Home module, ward teams can use a Care Control Dashboard linked to hospital electronic patient records (EPRs) to monitor discharge status and make timely referrals for community and VCSE support. Beyond discharge, RIVIAM integrates directly with clinical systems including TPP SystmOne and EMIS Web, ensuring smooth interoperability and alignment with the broader NHS digital infrastructure.

Together, these features create a comprehensive digital solution that replaces fragmented, manual processes with a single, secure, and highly collaborative system, enabling truly joined-up, person-centred care.

Implementation

The implementation of the CWH has been based on multi-agency mobilisation and co-design. Initially launched in March 2020 with six partners, the Hub now includes 37 organisations, such as HCRG Care Group, BaNES Council, and a wide range of VCSE providers like Bath Mind, Developing Health and Independence (DHI), and Citizens Advice BaNES. Each partner is linked through shared digital pathways on RIVIAM, enabling them to collaborate smoothly while maintaining role-based access and security.

The operating model was developed collaboratively to reflect the needs of local services and citizens. From the outset, the guiding principle has been “one contact, multiple partners” - a single digital front door for referrals. Pathway-based routing directs cases to the most suitable service, while a single-view record allows staff across agencies to coordinate support for individuals. This model was co-designed during the pandemic to assist people shielding or isolating and has since been expanded to address new pressures, including hospital discharge planning and services for refugees.

A key innovation has been the Hub’s role in discharge collaboration. Hospital, council, and VCSE partners now co-ordinate services in advance of discharge through RIVIAM’s Hospital to Home dashboard. The establishment of a dedicated hospital team and a new space in the Atrium of the Royal United Hospital (RUH) Bath reinforced engagement with acute care. In 2023, the introduction of the OnWard Admission form and new dashboards for RUH staff streamlined processes further, enabling ward staff to track referrals and confirm community support before patients leave the hospital. This digital approach reduces reliance on phone calls and emails, minimises delays, and gives staff confidence that patients will be supported once at home. The Hospital to Home service is also live in Paulton Memorial Hospital and St. Martins Hospital.

By embedding a shared digital infrastructure across organisations and aligning it with frontline workflows, the CWH has developed a scalable and sustainable model of integrated care, providing smoother handovers and more prompt support for people in BaNES.

Impact and Outcomes

BaNES Council has conducted a business case review and concluded that the service has delivered a fourfold return on investment.

Since its launch in March 2020, the CWH has had a measurable and enduring impact on the health and well-being of the BaNES community. To date, the Hub has managed over 32,000 referrals and supported more than 15,000 individuals, demonstrating its scale and capability to handle high demand. The Hub has shown resilience and flexibility, consistently mobilising resources to tackle emerging challenges - from COVID-19 to assisting Ukrainian refugees and the ongoing cost-of-living crisis.

At a system level, the Hub has transformed how organisations collaborate. Partners no longer depend on spreadsheets, phone calls, and emails to coordinate support. Instead, they share a single, auditable record of needs and activities, enabling quicker decision-making, reducing duplication, and enhancing the efficiency of service delivery. Leaders from Bath Mind and BaNES Council, among others, have endorsed the Hub as a vital part of integrated care in the region. A particularly notable advancement has been enabling secure access to the BaNES Integrated Care Record (ICR) via RIVIAM. This allows authorised third sector organisations to view real-time patient information, strengthening continuity of care and ensuring services are aligned.

For individuals, the outcomes are person-centred and holistic. Services are “wrapped around” people rather than delivered in isolation. With shared access to a single record, people are not required to repeat their story multiple times, and support is co-ordinated across agencies. This approach enhances user experience and ensures needs are met more comprehensively.

The Hub has also achieved measurable improvements in hospital discharge flow by using RIVIAM’s Hospital to Home service, which is directly integrated into the Multi-agency Referral Hub. Since June 2023 alone, it has processed 3,300 referrals and supported over 1,200 patients discharged from the RUH, Paulton Memorial Hospital, and St Martins. Ward teams can now verify whether community and VCSE support is in place before discharge, make multiple referrals from a single checklist, and discharge patients with greater confidence. This has reduced delays, freed up hospital capacity, and ensured safer, smoother transitions back into the community.

Overall, the CWH shows how digital innovation, together with strong partnerships, can provide tangible system benefits and better outcomes for people.

How does it achieve the ambitions outlined in the 10 Year Plan?

The NHS 10-Year Plan, titled Fit for the Future, outlines three major changes: shifting care from hospitals to communities, moving from analogue to digital technology, and prioritising prevention over illness. The CWH, supported by RIVIAM's Multi-Agency Referral Hub, directly supports these goals and provides practical examples of how they can be realised.

A central goal of the plan is to provide more care closer to home through integrated neighbourhood services. The CWH operationalises this vision by uniting 37 NHS, local authority, and VCSE partners around a single platform, facilitating community-based interventions and comprehensive support. By coordinating health, social care, and third sector services, the Hub alleviates pressure on hospitals and ensures that individuals receive timely assistance within their community. The Hospital to Home service exemplifies this approach, supporting smoother, safer discharges and freeing hospital capacity.

The plan calls for digitally-enabled, connected services, with the NHS App and shared records as core tools. The CWH already achieves this aim with its secure digital referral and case management platform, integrated with major clinical systems such as TPP SystmOne, EMIS, and EPRs. This represents a practical step towards the plan's vision of a unified, digitally-driven NHS. Significantly, RIVIAM supports fully digital processes - from referral to discharge - eliminating the need for paper forms, printouts, or manual record-keeping. Everything can be managed, tracked, and reported in real-time, reinforcing the plan's commitment to a digitally-driven NHS and alleviating staff from inefficient administrative tasks.

Prevention and early intervention are vital to the 2025 strategy, aiming to decrease reliance on acute care. The Hub facilitates early detection and swift referral to services like housing, debt advice, mental health support, and community services - tackling the social determinants of health before they develop into clinical crises. By ensuring individuals do not fall through service gaps, the CWH helps reduce inequalities and foster healthier, more resilient communities.

In summary, RIVIAM enables the CWH to serve as a clear embodiment of the 2025 NHS 10-Year Plan's priorities, demonstrating how integrated, digital, and preventive approaches can transform local care systems and enhance outcomes for individuals and communities.

At RIVIAM, we're not waiting until 2035 to turn that vision into reality. We're making it happen today.

2. From Analogue to Digital: Power in Your Hands

From digital platforms to wearable devices, SMEs and innovators are developing solutions that empower citizens and facilitate seamless, integrated healthcare. techUK members are helping to create a digital-first health system where people can access services, manage conditions, and receive support as easily as they do online banking and booking holidays.

IEG4 - Somerset ICB's transformation journey with the IEG4 Digital CHC platform

Background and Challenge

The NHS 10-Year Plan's vision emphasises digital innovation, workforce optimisation, integrated care, and sustainability. Integrated Care Boards (ICBs) must discover smarter, more efficient methods to deliver care using data, technology, and partnerships to guarantee services are both effective and sustainable in the future.

Technology is not just an enabler but a necessity, especially as ICBs face the growing challenge of delivering more with fewer resources. Considering the plans' core priority areas - hospital to community, analogue to digital, sickness to prevention - ICBs are more focused than ever on finding innovative ways to provide care while maximising efficiency in service delivery.

The implementation of a new digital Continuing Healthcare system (CHC) at Somerset ICB has enhanced the process for patients and introduced efficiencies for the NHS organisation.
NHS Somerset ICB oversees the provision and management of CHC services for a population with unique logistical and staffing challenges - operating within a rural region in South West England.

For years, the ICB relied on a legacy digital system to manage its CHC caseload. However, this system had become outdated and increasingly inefficient, especially as the demands of data reporting, staff coordination, and patient communication intensified. Recognising the urgent need for modernisation, Somerset ICB began a digital transformation by adopting IEG4's (part of the IEG Group) end-to-end Digital CHC platform.

Somerset ICB faced multiple challenges that necessitated a new solution. Firstly, its outdated legacy system was not suitable for NHS England guidelines or reporting requirements, resulting in a significant administrative burden. Staff often had to manually extract and manipulate data to generate reports for both internal and national use. This inefficiency strained resources and caused bottlenecks in service delivery.

Additionally, the system was a standalone platform accessible only to CHC staff, creating silos that limited visibility for other professionals involved in patient care. This hampered collaboration and delayed decisions in the CHC journey. Furthermore, due to Somerset's rural geography and the lack of nearby university feeders, recruiting and retaining skilled professionals, especially nurses, remained a persistent challenge. The ICB required a platform that could reduce staff's repetitive, non-clinical tasks and enable better utilisation of limited human resources.

Digital Solution

After a thorough NHS-compliant procurement process, Somerset ICB selected the IEG4 CHC platform, chosen not only for its compliance with procurement standards but also for its comprehensive features, end-to-end capabilities, and improved workflows that meet Somerset's operational requirements.

IEG4's solution provides a unified system that streamlines case management, enhances visibility across the CHC process, and promotes timely and transparent communication between professionals, patients, and providers. A key feature is its integrated care provider module, which greatly improves the process of verifying and managing payments to care providers.

Implementation

IEG4 collaborated closely with Somerset ICB, aligning goals and tailoring their implementation approach to meet local needs. Regular meetings at the project and board levels ensured prompt resolution of issues and effective progress tracking. Enhancement requests were reviewed weekly, with priorities agreed collaboratively to keep the project on schedule. Open, honest communication and a flexible, responsive approach helped overcome challenges swiftly and effectively, ultimately ensuring a smooth, timely implementation and a strong foundation for ongoing success.

Somerset ICB implemented a phased rollout approach to minimise disruption and enable iterative learning. The county was divided into four localities (Mendip,

Bridgwater, Yeovil, and Taunton), each gradually adopting the new system between October 2024 and April 2025.

- Phase 1 (Oct 2024): Focused on patients in nursing homes under standard CHC or Funded Nursing Care (FNC).
- Phase 2 (Dec 2024): Expanded to include localities two and three.
- Phase 3 (Feb 2025): Rolled out in the fourth locality.
- Phase 4 (Apr 2025): Covered children and young people, domiciliary care, and fast-track cases.

This careful planning was designed to ensure a continuity of service and allow frontline staff to gradually adapt to the new system. Somerset provided training, drop-in sessions, regular team briefings, and MS Teams support channels to guide users through the change. Engagement was maintained throughout via feedback loops and real-time problem-solving, which reduced initial queries significantly and supported a smooth transition.

Impact and Outcomes

Although full implementation was only recently completed and the full decommissioning of the legacy system occurred in June 2025, early results indicate promising benefits:

- Staffing efficiency: The system has transformed traditional administrative roles into hybrid “CHC support worker” positions. These new roles now support clinical staff by managing non-clinical tasks, maximising the limited pool of healthcare professionals in the county.
- Faster payments: The care provider module now enables payment processing to be completed in just 20 minutes per week, removing the need for labour-intensive monthly procedures. Providers have reported quicker and more transparent payment validations.
- Enhanced patient experience: Patients and professionals can monitor progress in the CHC process in real-time. This increased visibility promotes transparency and facilitates more timely assessments and reviews.
- A focus on sustainability: By reducing dependence on printing and postal communications, the ICB is shifting towards a more sustainable and digitally native operation.
- Improved data access: Managers can now retrieve essential reports and patient information more intuitively, eliminating the bottleneck caused by reliance on specialist support for data extraction.

Lynette Emsley, associate director of CHC and care sector services at NHS Somerset ICB, said, *"The new digital CHC platform has helped our team to create efficiency benefits, carrying out assessments and reviews more promptly. Patients and professionals are able to log in and track progress in real-time, improving transparency throughout the patient journey. Additionally, by reducing our reliance on printing and posting, we're creating a more environmentally sustainable service."*

Stephen Ferry, chief executive of IEG Group, said, *"Working in partnership with an organisation as flexible as NHS Somerset ICB was key to a successful and fast deployment. The project has offered an exciting opportunity to demonstrate just how intuitive the digital CHC platform can truly be. We are excited to realise further benefits as we continue working with them."*

How does it help achieve the ambitions outlined in the 10 Year Plan?

The implementation clearly aligns with the goals outlined in the NHS 10-Year Plan, especially in digital transformation, workforce efficiency, integrated care, and sustainability. Faced with the constraints of an outdated legacy system, Somerset ICB implemented IEG4's end-to-end Digital CHC platform to modernise operations and better serve its rural community. This shift supports the NHS's strategic move towards a digitally enabled health and care system by streamlining case management, enhancing data accessibility, and increasing transparency for both patients and professionals.

One of the main objectives of the NHS plan is to support the workforce by providing better tools and more fulfilling roles. The new platform enabled Somerset to transform traditional administrative roles into hybrid "CHC support worker" positions, freeing clinical staff from routine non-clinical tasks and helping to address recruitment and retention challenges in a rural environment. This method aligns with the plan's goal to make NHS roles more efficient, sustainable, and rewarding.

The system also helps provide more personalised and integrated care. With real-time visibility into patient cases and the ability to monitor progress through the CHC journey, both professionals and patients benefit from greater transparency and more timely assessments. This supports the NHS's aim of enabling people to live independently for longer through more responsive and person-centred care.

From a financial and operational perspective, the platform has achieved notable efficiencies. Payment processing, which previously involved extensive manual input, now takes only 20 minutes per week, enhancing cash flow and satisfaction among care providers. The move towards digital communication and reporting also aligns

with the NHS's broader environmental sustainability goals by reducing the need for printing and postage.

Finally, the phased rollout strategy and cross-locality collaboration demonstrate Somerset ICB's commitment to place-based, integrated care - a core priority of the Plan. The success of the platform has not only strengthened CHC delivery but is also being considered for expansion into other services such as mental health, safeguarding, and children's care, fostering a more cohesive and scalable model of care. Building on this achievement, Somerset is now piloting IEG4's AI Transcribe, an intelligent, fully integrated speech-to-text module that will further improve efficiencies and positive patient outcomes.

Overall, the early results of this project demonstrate a vision of a modern, efficient, and integrated healthcare system that empowers staff, enhances patient outcomes, and ensures long-term sustainability.

Patients Know Best: Single Patient Record capabilities

Background and Challenge

Patients Know Best (PKB) is a software-as-a-service single patient record (SPR). Every month in England, PKB receives data from 25% of hospitals and GPs across England and patient-generated information. This case study outlines some of the key metrics of the data held to date, the architectural issues addressed, and the solutions provided by the PKB platform.

A SPR consolidates all health information about an individual in one secure location. It offers a 'single source of truth' for everyone involved in the person's care, including the patient themselves. National governments and multinational organisations worldwide recognise the need for an SPR to serve their citizens and customers. In healthcare, integrating patient data from different organisations into a single, unified record is a complex challenge. PKB has achieved this across health economies in England and the Netherlands, and in December 2024, it was commissioned by the government of Lagos to do the same for its 20 million population, based on the proven architecture used in the UK.

Digital Solution

Every month, PKB in England receives from 25% of hospitals 20 million test results, 2 million appointments, and 1 million letters; from GPs across all of England, 48 million medications, 4 million conditions, and 200 million observations; and from patients,

over 12 million symptoms and measurements. PKB is the only platform that integrates data across primary care, secondary care, social care, voluntary care, mental health organisations, and private healthcare providers. All data is stored within an aggregated SPR, accessible to the patient through PKB's web application and within authorised third-party applications (e.g., directly within the NHS App in England and Wales and in pathway-specific applications in the Netherlands).

In healthcare, integrating patient data from various organisations into a single, unified record poses a complex challenge.

Our 17 years of experience are unmatched in the industry. When multiple healthcare organisations need to share data, several major problems emerge. These are often not obvious and difficult to resolve; delaying their resolution is costly, especially given the architectures most health economies tend to start with.

Our architecture is built on the assumption that in the real world, systems are imperfect, data is inconsistent, incomplete or incorrect, humans make mistakes, expectations and environments change, and our view of standards and models evolves. Our system is designed to aggregate and expose high-quality data even under these conditions. It can compensate for mistakes and data issues, making it feasible and cost-effective to correct errors.

Some examples of how our data aggregator architecture addresses common data integration issues:

The aggregator architecture is designed to never modify the original data stored in a customer's upstream system. Whatever data we receive from customers is read-only for PKB systems and is never modified by PKB - this enables us to re-run the data aggregation process, if necessary, without any data loss. This might be necessary when either PKB's or the customers' systems are behaving incorrectly.

Sometimes source systems do not follow all the interoperability standards - a common example is using non-globally unique identifiers for health resources. We address ID conflicts by deterministically transforming logical IDs into universally unique identifiers (UUIDs), preventing overwrites.

PKB is one of the largest FHIR-native data stores in the world. We are, however, aware that standards and interoperability will evolve over time, and FHIR (R4) isn't the final version. Our systems automatically upgrade incoming FHIR data from older versions (e.g., STU3) to the latest supported version (R4) during aggregation, and

they are architecturally prepared to support new inbound and outbound data formats. This ensures all data is stored and retrieved consistently.

The data egress endpoint features an authorisation model that dynamically adds rules to API requests. This enables us to filter data according to privacy labels and consents, ensuring that patients and clinicians only access information they are permitted to see. It also allows for specific filtering, such as displaying only appointments from certain organisations.

We can enhance FHIR resources with human-readable information (e.g., organisation names) to make the data more useful for applications and to reduce the need for additional API calls.

The aggregator validates incoming data against our internal requirements. If the data does not meet these criteria, it is rejected at the boundary to avoid downstream problems.

No one else has successfully completed a multi-organisational, multi-resource aggregation process more than once. We have not only identified these issues but also developed and tested solutions for them. This extensive experience provides us with a unique advantage and a solid foundation for future projects, such as the Single Patient Record Initiative.

PKB's SaaS offering to the government of Lagos includes:

- A storage copy of all medical records data in the state, in FHIR 4 native format with SNOMED codes and relevant patient identifiers (including federal, state, provider, and payer identifiers).
- Read-write FHIR APIs for each provider concerning every patient for whom they hold appropriate consent.
- Consultancy on how to deploy an SPR correctly based on our experience delivering SPRs in London, the Netherlands, and other customer sites. We have already helped them avoid mistakes with identifiers, data quality, FHIR mappings, and consent. We observe these mistakes with every health economy that begins an SPR, and we aim to help them avoid future pitfalls.

Implementation

Interswitch is the prime contractor for the SPR in Lagos, working with the state government and local health providers, while PKB delivers the technology and platform. PKB and Interswitch co-designed the best approach for identifiers and data

release, drawing on PKB's global expertise in coordinating multi-organisation, multi-resource aggregation, and Interswitch's local expertise in engaging and enrolling organisations. Together, we have learned the most effective way to manage identifiers, including federal, state, and local identifiers for each patient. Interswitch has created an EPR integration module that streams data to PKB's central SPR to be installed at each site. Ensuring that identifiers for each data point are unique across all EPRs in the state was critical to prevent one hospital's EPR from overwriting another.

Impact and Outcomes

The contract was signed in December 2024. With no prior deployments or pilots in the country to build upon, the production server went live on 7 August 2025, and the publicity and launch are scheduled for October 2025. The state has already begun discussions with the federal government for scaling up, as this is the first and only operational SPR in the country. PKB was chosen as the partner for this programme due to our extensive experience in enabling the technology to deliver these initiatives quickly, while effectively managing risks. The October launch will initially involve the public health organisations, namely 239 primary care centres and 33 secondary health centres, providing 4.7 million outpatient appointments, with expansion to additional organisations planned over time.

How does it help achieve the ambitions outlined in the 10 Year Plan?

Within the 10 Year Plan, there are numerous broad aspirations aligned with the three fundamental shifts in how the NHS operates - from hospital to community, from analogue to digital, and from sickness to prevention. PKB identifies a commonality across these shifts related to the role and enablement of patients. It is within this horizontal movement that PKB sees itself providing a supporting role in the change.

NHS England's 2025 Request for Information documents outline their SPR vision:

- Provide patients with visibility and control over their data, allowing them to read, write, share joint care plans, and make corrections to their data - while also managing sharing preferences and accessing an audit trail of who has viewed their record and for what purpose.
- Create a 'single source of truth' by integrating data across different settings, allowing patients, healthcare professionals, and social care providers to work from the same record. They can view key primary and secondary NHS interactions and prompt actions automatically.

- Ensure secure access to data for third-party applications such as research and clinical trials (while respecting patient choice).

PKB not only has the infrastructure to support the delivery of the SPR and the ambitions noted in the 10YP but also possesses extensive data coverage, experience in delivering similar programmes, and an understanding of the main risk areas. Additionally, there is a willingness and desire to collaborate with other parties to ensure a successful broader approach, as is necessary for projects of this scale.

Sleepio - Nationwide implementation of NICE-approved digital treatment for insomnia in Scotland

Background and Challenges

In 2021, the Scottish Government and NHS Scotland successfully rolled out Sleepio (the NICE-approved digital treatment for insomnia) across Scotland. This provided all adults with instant access to safe, effective, first-line treatment for insomnia – free on the NHS, with no appointment or prescription needed.

The joint goals of implementation were to:

1. Equitably increase access to treatment
2. Reduce overdependence on prescribed hypnotics with dangerous side effects
3. Enhance sleep and mental health outcomes

Since 2021, over 73,000 patients have accessed Sleepio, with uptake evenly distributed across different age groups, ethnicities, and all fourteen Health Board Areas (rural and urban). Patient outcomes have improved, with 69% of Sleepio users experiencing better sleep. Clinicians are very positive about being able to offer first-line treatment and about how easily Sleepio can be integrated into clinical practice.

Together with the Scottish Government and NHS Scotland, we aimed to address the lack of access to safe and effective first-line non-drug treatments for insomnia. This would, in turn, tackle overreliance on prescribed hypnotic medicines, which have limited evidence of long-term effectiveness and carry hazardous side effects, including dependence, withdrawal, suicidal ideation, falls, and fractures.

Chris Wright, National Advisor for Digital Mental Health and Lead of the National Digital Mental Health Programme in the Scottish Government, led the implementation. He summarised the situation he wanted to address using Sleepio:

“Insomnia was for many years an area of significant unmet need in Scotland, with limited or no specialist services available and little recognition of the needs in this patient group within mental health and other support services. As a consequence, patients with insomnia and clinicians had little or no choice of treatment other than to prescribe."

Digital Solution

Sleepio is the NICE-recommended digital treatment that provides Cognitive Behavioural Therapy for insomnia (CBT-I) through a fully automated smartphone app. Patients can access Sleepio immediately, without needing a prescription or referral - making it easier than ever to get first-line treatment for insomnia.

Sleepio delivers treatment with four key components that patients can access 24/7:

1. CBT-I sessions: weekly 10-20 minute sessions guided by a virtual therapist, who introduces practical CBT-I techniques for patients to learn, practise, and incorporate into their daily routine.
2. Sleep diary: patients record their nightly sleep daily, and Sleepio uses this data to personalise the programme according to their needs and progress.
3. In-the-moment help: audio-only relaxation sessions designed to assist patients at the moment they cannot sleep, without the need for screen use.
4. Expert resources: patients can access articles written by our sleep specialists on common topics, including shift work, sleep during pregnancy and as a new parent, jet lag, and wearables.

Sleepio is a registered medical device and is the first (and only) digital treatment recommended by NICE. NICE assessed Sleepio's clinical and health economic evidence and found it to be more clinically effective and to offer in-year cost savings compared to standard care (sleep hygiene and sleeping pills).

Implementation

Sleepio was implemented via Scotland's innovative 'Test of Change' model. This involves a single contract in two phases that provides a mutual incentive for both Scotland and the supplier to prioritise high-quality, sustainable implementation that benefits patients and clinicians.

Stage 1) Year 1: targeted implementation to evaluate real-world impact against pre-agreed success criteria (covering uptake, outcomes, patient & clinician experience)

Stage 2) Years 2 and 3: if pre-agreed success criteria are met, expansion to nationwide rollout

The Scottish Government Digital Mental Health Team and Big Health co-developed an implementation plan to integrate Sleepio into primary care and psychology services across three of Scotland's 14 Health Boards, representing both rural and urban regions. This plan was collaboratively delivered, including training clinical teams, creating public health resources, embedding Sleepio into clinician-facing tools (e.g., prescribing software), and establishing regular reporting. After just 8 months in Year 1, the implementation met all pre-set success criteria. Sleepio was advanced to Stage 2 of the contract: nationwide rollout.

Expansion involved co-designing a new nationwide implementation plan, which was delivered collaboratively and involved third-sector partners, local NHS teams, health and social care partnerships, public health, and more. Sleepio was embedded in healthcare information sources and mainstream primary care and psychology services at national, regional, and local levels. This was designed and executed to minimise the behaviour change and effort required from NHS teams:

- National: auto-alerts added to prescribing software when prescriber selects a hypnotic, suggesting Sleepio as a first-line, non-drug alternative option; included in NHS patient-facing websites; promoted through public health campaigns; integrated into national clinician-facing NHS resources, including NICE Clinical Knowledge Summary on insomnia.
- Regional: promoted to patients and clinicians across Scotland’s 14 Health Boards; training provided to Health Board leads by Big Health (no extra cost - covered by contract for Sleepio access); included in formularies; incorporated into patient messaging templates.
- Local: training delivered to primary care teams, local charities, and advocacy groups by Big Health (at no extra cost - covered by contract for Sleepio access); physical and digital resources provided to GP practices by Big Health (at no extra cost - covered by contract for Sleepio access).

Impact and Outcomes

The implementation has delivered strong results against the aims of the Scottish Government and NHS Scotland:

- Uptake: Over 73,000 patients have begun treatment with Sleepio. This indicates that more than 73,000 patients can now access first-line insomnia

treatment instantly, rather than facing limited options of second-line medicines or no treatment at all
- Outcomes: 69% of Sleepio patients see improvements in insomnia symptoms, based on follow-up data using the Sleep Condition Indicator two-item questionnaire (SCI-2, the clinically validated screening tool for insomnia)
- Patient and clinician experiences: Scottish Government and NHS Scotland have received consistently positive feedback regarding the implementation of Sleepio as a treatment.

Chris Wright, National Advisor for Digital Mental Health and Lead of the National Digital Mental Health Programme in the Scottish Government, summarised this impact:

"In 2021, Scotland made a choice to make NICE-recommended digital CBTi available nationwide, free of charge to anyone in Scotland through the NHS.

"This gave every patient access to evidence-based treatment directly via self-referral, or through signposting by a member of our primary care teams, including GPs, Practice Nurses, and Link Workers, psychology services and wider mental health teams, and third-sector organisations.

"With over 70,000 individuals having now accessed digital CBTi in Scotland, it has proven to give patients and clinicians nationwide a safe and effective non-drug option when managing insomnia, reducing overreliance on prescribed medicines."

How does it help achieve the ambitions outlined in the 10 Year Plan?

Sleepio exemplifies the three shifts for the NHS. Currently in England, insomnia is treated as a sickness service, with patients overmedicated on hypnotics. Nationwide access to Sleepio will accelerate the move from analogue to digital and provide treatment within the community without the need for referrals or waiting times. This will free up GP appointments and prevent deteriorating outcomes, adverse effects of hypnotics, and downstream costs.

To power the three shifts, nationwide implementation of Sleepio in England will directly support the achievement of three key ambitions outlined in the 10 Year Plan:

1. Enhancing prevention and early intervention: Sleepio provides first-line treatment at the earliest stage of the patient journey because it is accessible without an appointment or referral. This avoids patients waiting for years-long

lists for face-to-face appointments and/or taking risky hypnotic medications without CBT-I.

2. Improving access to services and reducing health inequalities: currently, most patients in England cannot access first-line CBT-I. The nationwide rollout of Sleepio in Scotland changed that, offering instant, free access on the NHS to all adults, with 73,000 people now benefiting. Regarding health inequalities, uptake has been strong across all ethnic groups, with participation among non-white ethnic groups (8.4% of total Sleepio patients) slightly above their representation in the Scottish population (7.1% in the 2022 Scottish Census).
3. Empowering citizens through digital tools and self-management: for the first time in history, Sleepio provides patients with insomnia the ability to access safe, effective, first-line treatment instantly. There is no need to wait for appointments or travel to clinics, no need to engage with overstretched services, and - importantly for a stigmatised mental health condition - no need to disclose your struggles. Sleepio puts proven treatment within patients' reach and guides and supports them to manage their own recovery.

Supporting this strategic alignment with the 10 Year Plan is a significant financial advantage. Sleepio is cost-neutral in the short term and infinitely scalable, providing the NHS with an opportunity to meet the enormous demand for insomnia treatment (9.7 million UK adults) in a cost-effective manner. This is essential for building an NHS that is prepared for the future.

Ardigen: Nextflow-Powered Transformation - Migrating Genomics England's Clinical Workflows

Background and Challenge

To enhance its genomic medicine offerings, Genomics England partnered with Ardigen to migrate its in-house clinical workflow management system, Bertha, to a more flexible solution based on Nextflow, which was named Genie. The legacy system, Bertha, was a monolithic workflow manager designed for high-throughput genetic sequence analysis. The migration was driven by the need to handle ambitious targets, including processing 300,000 samples by 2025, and to support new use cases more efficiently. The existing system was not flexible enough to handle the growing volumes of genomic data and the need for new functionalities. A major challenge during the migration was the risk of divergence between the still-active Bertha system and the new Nextflow-based workflows.

Our solution, Genie, provides robustness, adaptability, and compatibility with various infrastructures, which are crucial as data volumes grow. A key aspect of the project

was developing a custom testing framework, Jasmine, to ensure consistency and prevent divergence between the two systems during the transition. Recipient teams successfully adopted the new pipelines and have already processed patient clinical samples without errors.

Digital Solution

The digital solution is a new workflow management system called Genie, which is based on the open-source Nextflow platform. The migration employed a "lift and shift" approach, where the existing Bertha logic was encapsulated within Nextflow modules using a customised Python wrapper called Component Wrapper. This strategy enabled the team to quickly implement a new system while maintaining the certified logic of the legacy system. The solution also utilises containerisation with a Singularity image to improve reproducibility and provide better control over the development environment.

Implementation

The project began with a prototyping stage to evaluate three potential migration approaches and select the most suitable one based on evidence rather than assumptions. The team employed Nextflow's modular design and sub-workflows to parallelise the migration work and minimise complexity. To reduce the risk of divergence, a custom testing framework called Jasmine was developed to compare the outputs of both Bertha and Genie. The entire process was automated using GitLab CI.

Impact and Outcomes

The migration to the new system, Genie, was successful. The resulting pipelines were quickly adopted and have already processed clinical samples without any errors. The new system provides flexibility, scalability, and cloud compatibility, which are crucial for managing the growing volume of genomic data. By adopting off-the-shelf products like Nextflow, Genomics England can now focus on its core mission of enabling greater public access to genomic medicine. The approach also led to a cleaner and more maintainable system architecture.

How does it achieve the ambitions outlined in the 10 Year Plan?

The solution supports the plan's aim to transform the NHS by shifting from analogue to digital systems. By adopting a modern, adaptable, and scalable bioinformatics platform, Genomics England positions itself as a global leader in facilitating genomic

medicine and research. This digital transformation enables the NHS to efficiently handle large volumes of genomic data and ultimately provide better, data-driven healthcare to patients. The use of Nextflow also corresponds with the plan's goal to utilise technology and AI to make the NHS "fit for the future', as the data processing system will prepare data for AI algorithms.

3. From Sickness to Prevention: Power to Make the Healthy Choice

Demographic changes necessitate that prevention becomes the cornerstone of the NHS. With the right digital tools and diagnostics, people can detect risks earlier, take proactive steps to stay healthy, and reduce inequalities in access to care. techUK supports innovation that enables everyone to benefit from early intervention.

Restart: Devon Partnership Trust accelerates EPR transition by archiving more, migrating less

Devon Partnership Trust (DPT) aimed to deploy TPP's SystmOne electronic patient record (EPR) within just 90 days. Traditional data migration, which is often lengthy and risky, was not feasible. Instead, DPT adopted an innovative "land and expand" approach, focusing on a clinically safe go-live while maintaining access to essential legacy records.

Partnering with ReStart and their IMX Archive solution, supported by Apira, DPT avoided the challenges of full migration by giving clinicians secure access to historic patient data through an 'in context' link within SystmOne. This method saved significant time and resources, lowered risks, and provided a seamless experience for clinicians from day one.

ReStart's IMX Archive was tailored to the Trust's needs, displaying complex structured data in an easy-to-understand format that was not only familiar but, in some cases, clearer than before. The quick deployment demonstrated how innovation in data archiving can transform traditional EPR systems, proving that speed and safety can coexist.

Beyond facilitating a quick and successful transition, the solution supports ongoing reforms across the Devon health system by making data more accessible and usable. This empowers clinicians and decision-makers with improved insights, fostering efficiency, innovation, and data-driven improvements in care throughout the region.

Digital Solution

IMX Archive is a digital solution designed to provide healthcare organisations with secure, reliable, and intuitive access to legacy patient data during and after an EPR transition. Instead of migrating years of complex records into a new system - a process that can take months or even years - IMX Archive stores this information in a dedicated archive and makes it instantly accessible within the new EPR.

For clinicians, this means that when they open a patient's record in the new system, they can launch IMX Archive in context with a single click. The data is displayed in a logical, user-friendly way, tailored to local requirements, making it familiar and easy to navigate.

Behind the scenes, IMX Archive securely stores structured and unstructured data from legacy systems. It can be customised to display forms, test results, and notes in a way that maintains meaning and clinical context. Because it integrates seamlessly with the live EPR, clinicians experience no disruption to their workflows, while organisations avoid delays, costs, and risks associated with traditional large-scale data migration.

In short, IMX Archive facilitates quicker digital transformation by integrating speed, security, and ease of access in retrieving historic patient records.

Implementation

The solution was implemented through a highly collaborative and agile process to achieve DPT's ambitious 90-day go-live target. From the outset, ReStart worked closely with DPT's digital and clinical teams, as well as Apira, the Trust's deployment partner, to ensure IMX Archive was tailored to the Trust's needs.

Deployment was coordinated through a structured project plan with twice-weekly meetings, clear milestones, and ongoing progress reviews. Clinicians were directly involved in co-design, helping shape how legacy data was presented so that it was intuitive, familiar, and safe to use in a clinical environment. This co-production approach ensured the archive addressed frontline needs while minimising disruption to care.

The partnership between DPT, ReStart, and Apira was critical to success. Apira contributed to the overall EPR implementation strategy, while ReStart's technical and project teams concentrated on developing and customising the archive solution. By working together, the teams managed to overcome the challenges of structured

legacy data and delivered the solution on time, within budget, and according to specifications.

This collaborative model not only facilitated rapid deployment but also established a strong foundation for future phases, including expanding the archive to support Children and Family Health Devon.

How does it help achieve the ambitions of the 10 Year Plan?

ReStart's IMX Archive directly supports the goals outlined in the NHS Long Term Plan by facilitating a faster, safer, and more integrated digital transformation.

- Supporting digitally-enabled care: The Long Term Plan aims for every patient to have "core digital services" by 2024. IMX Archive ensures clinicians can access complete patient records instantly, even during major EPR transitions, maintaining continuity of safe, digitally-enabled care. By including legacy data, IMX Archive supports the NHS App's goal of a 'from birth' complete record.
- Empowering clinicians with data-driven insights: By displaying legacy data in a clear, intuitive format, IMX Archive reduces clinical workload and supports more informed, data-driven decisions, furthering the goal of using digital tools to enhance care quality.
- Driving integration across care settings: The NHS aims for seamless care across primary, secondary, mental health, and community services. By linking historic records smoothly into SystmOne, IMX Archive promotes interoperability and data sharing within the Devon Integrated Care System, in line with the Long-Term Plan's integration objectives.
- Accelerating innovation and reform: The Long-Term Plan stresses quicker adoption of proven innovations. IMX Archive replaces lengthy, high-risk migration processes with an innovative approach that saves time, money, and resources, assisting organisations to modernise swiftly and efficiently.

In short, the solution supports the NHS goal of achieving better outcomes, increased efficiency, and more personalised, data-driven care through digital innovation.

Wellmind Health: Scaling care without the waiting room - How Wellmind Health provides hospital-grade results at home.

Background and Challenge

Wellmind Health transforms care by providing citizens with self-managed digital tools that support the NHS's long-term move towards prevention, community-based services, and digital-first care. As a lean SME, we have demonstrated that small teams with strong evidence can achieve population-level change, complementing NHS services and promoting a digitally-enabled, community-focused future.

The scale of unmet need within the NHS is unprecedented. By September 2024, over 348,000 people were awaiting community musculoskeletal (MSK) services, representing the largest backlog of any community specialty. Patients with back pain referred for physiotherapy typically wait more than 12 weeks, and in many areas, waits extend up to six months. Consultant-led pain services report median waits of 14.8 weeks, with 92 percent waiting as long as 44.6 weeks. Some patients face delays of 112 weeks, over two years, before receiving structured pain management. Nearly one in five adults in England now live with a long-term MSK condition, while 87 percent of pain clinics fail to meet the 8-week benchmark.
Mental health services are also overwhelmed. Over 1.6 million people are on NHS mental health waiting lists—an increase of 29 percent in just two years. One in four has to wait more than 90 days for a first Talking Therapy appointment, with some extreme cases waiting up to 22 months. Forty percent of patients have no interim support, 42 percent worsen while waiting, and one in four attempts suicide before they receive treatment. Staffing decreased by 2.9 percent in 2024, even as demand increased, leaving services unable to cope.

The common thread is delay, deterioration, and dependency. When the system relies on clinicians not only to provide care but also to suggest digital tools, demonstrate them to patients, and gather outcome data, it creates yet another burden on an already stretched workforce. That model is unsustainable and cannot be scaled.

Wellmind Health aimed to break this cycle. The challenge we tackled was to provide citizens with access to NHS-quality treatments in a fraction of the time, without requiring additional clinician effort, and with transparent outcomes from day one. By co-designing our digital programmes with users at each stage, we created interventions that are fully self-directed, clinically validated, and quickly scalable. Patients can begin immediately, recover faster, and observe measurable improvements while waiting lists continue to grow elsewhere.

To date, supporting over 150,000 people, our three CE-marked programmes - Pathway through Pain, Be Mindful, and Meditainment - deliver hospital-level outcomes without hospital-level costs. Users of Pathway through Pain achieve a 17% reduction in pain, 36% improvement in sleep, and 28% return to normal life within approximately 46 days. Be Mindful matches NHS Talking Therapies recovery rates at £89 per course compared to around £1,100, saving enough to fund 40,000 Mounjaro prescriptions for those with type 2 diabetes. Across all programmes, 2,169 individuals have experienced reduced suicidal ideation, potentially preventing hundreds of A&E crisis admissions.

Rising demand and stretched workforces cause patients to wait months for support. Our self-guided modules eliminate bottlenecks, reduce therapist demand by over 44,000 sessions, and relieve hospital pressure, all while empowering citizens in their recovery. Real-time outcomes dashboards and modular integration enable transparent procurement and clear ROI, aligning with the 10-Year Plan’s focus on data-driven innovation.

In short, we removed the bottleneck. By handing people the tools to self-manage pain, mental health, and addiction, we shifted control back into the hands of citizens, where it belongs.

Digital Solution

Wellmind Health has built a suite of self-guided digital therapeutics based on mindfulness-based cognitive therapy, an approach repeatedly proven effective in managing both mental health conditions and chronic pain. In nine randomised controlled trials, our interventions have shown statistically significant results, from lowering depression and anxiety symptoms to enhancing pain self-efficacy and overall quality of life.

What differentiates our technology is its autonomy. Users complete structured, evidence-based programmes online in an average of 46 days, whereas NHS pathways often require many months of waiting and multiple clinician-led sessions. For example, our Be Mindful programme achieves a 44.1 per cent recovery rate in just seven weeks, comparable to NHS Talking Therapies but at a fraction of the time and cost. Pathway through Pain users report a 17 per cent reduction in pain intensity, with 36 per cent experiencing improved sleep and 28 per cent regaining the ability to return to everyday life.

Critically, our model eliminates the need for already overburdened clinicians to deliver therapy. Patients access care immediately, without referral, while clinicians and commissioners can monitor outcomes remotely through our proprietary data portal.

This platform offers real-time feedback on clinical progress and a return on investment, providing reassurance through transparent, continuously updated performance data. Across the NHS, over 44,000 therapy sessions have been avoided, saving £6.1 million, and more than 2,000 people have experienced a reduction in suicidal ideation.

Our digital architecture is modular, designed for easy localisation and integration with electronic health records, workplace platforms, and insurer portals. This makes the technology highly scalable, ready to adapt to new markets with minimal configuration.

In practice, our digital MBCT tools achieve NHS-standard results, but more quickly, affordably, and without the bottleneck of limited clinical capacity. They empower citizens by placing control back into their hands, while providing commissioners and providers with tools to monitor safety, effectiveness, and economic value in real time.

Implementation

Our solutions have been deployed through multiple cycles of co-creation, ensuring they reflect the real needs and experiences of those they serve. From the earliest stages, patients shaped everything from imagery and iconography to colour palettes and navigation. This collaborative approach has continued at scale: more than 2,000 Trustpilot reviews, averaging 4.4 stars across our portfolio, provide a continuous feedback loop that informs refinements and feature development.

We have collaborated closely with academic partners to conduct nine randomised controlled trials in mental health and pain, establishing an independent evidence base that confirms both safety and effectiveness. Professional partnerships have been equally vital, from working with over 20 NHS organisations to developing Cleardays with the Crossroads Drug Rehabilitation Centre in Arizona. Each partnership has expanded our reach and relevance.

Equity is a fundamental design principle, not an afterthought. All our programmes adhere to WCAG AA accessibility standards, and we are now rebuilding Be Mindful from the ground up with inclusivity at its centre. This new version, guided by a steering group of twelve disabled individuals, incorporates British Sign Language, Easy Read formats, and captioning. It is the most comprehensive redesign in our history and exemplifies how digital health can be inclusive by default.

By incorporating co-design, rigorous science, and accessibility at every stage of deployment, we have developed interventions that are scalable, equitable, and trusted by users and professionals alike. This combination of collaboration and ongoing iteration has enabled Wellmind Health to deliver NHS-quality standards in a fraction of the time, on terms shaped by the people who need support most.

Impact and Outcomes

Our programmes have reached over 130,000 people, with more than 70,000 having completed them in full. The evidence base is strong, with nine peer-reviewed papers involving 2,000 patients across five impartial academic partners showing consistently better outcomes than standard care up to six months after the programme.

In mental health, Be Mindful has supported 58,000 people, with complete recovery rates of 44.1% in just 49 days compared to 49.9% in NHS Talking Therapies, which take three times longer and cost twelve times more. This results in 5,255 full recoveries, avoiding over 44,000 therapist appointments and saving the NHS £6.1 million. When considering reliable improvements, Be Mindful achieves dependable mental health benefits for 59.7% of users in just 49 days, compared to 66.4% over 8.4 NHS therapy sessions. In fact, among our 58,000 users to date, GAD-7 scores improve by an average of 4.42 points, and 6,870 individuals achieved clinically significant reductions in anxiety. Overall, 2,169 people across programmes reported reduced suicidal ideation, enough to fill five jumbo jets, with 1,506 of these from Be Mindful alone.

Pathway through Pain (PtP), recommended by NICE in their Early Value Assessment for managing lower back pain, and one of only five approved solutions nationwide, has assisted over 11,000 individuals with chronic back pain. Of the 4,428 participants who completed the programme, 845 achieved full recovery and 1,544 showed consistent improvement. Outcomes include a 17.4% reduction in pain intensity, 36% reporting better sleep, 34.4% feeling less anxious or on edge, 32.4% experiencing improved concentration, 28% being able to resume a normal lifestyle, 14.2% reporting enhancements in social life, and an average 5.7-point increase in pain self-efficacy, which is two-thirds of the threshold required to avoid further healthcare.

One study showed PtP delivered QALYs at £5,964, making it three times more cost-effective than popular weight-loss injections such as Mounjaro.

Across all interventions, we have generated 6.17 QALYs per 1,000 private users, valued at £123,400 according to NICE benchmarks. With over 2,000 Trustpilot reviews averaging 4.4 stars, we rank among the top-rated digital mental health providers globally.

These outcomes demonstrate real-world, scalable impact: reducing suicide risk, shortening waiting times, restoring daily functioning, and generating millions in economic savings, all without adding pressure to overstretched clinicians.

How does it achieve the ambitions outlined in the 10 Year Plan?

The NHS 10 Year Plan advocates for earlier intervention. Wellmind Health achieves this by offering rapid access to evidence-based programmes without needing referrals or significant clinician oversight. While NHS Talking Therapies average 8.4 sessions over several months, Be Mindful attains a 44.1% recovery rate in just 49 days at a cost of only £89, compared to approximately £1,100. PtP completes in an average of 46 days, with 25% of users finishing in merely 24 days, in contrast to the lengthy waits for physiotherapy or pain clinics. By acting swiftly, deterioration is avoided, and 2,169 individuals have reported reduced suicidal ideation, preventing potential crisis admissions.

The NHS 10 Year Plan stresses the need to enhance efficiency and capacity. Wellmind meets this by shifting care from resource-intensive, clinician-delivered models to self-directed digital therapeutics. Over 5,255 users achieved full recovery, avoiding 44,142 therapist appointments, equivalent to £6.1m in saved NHS time. PtP generates Quality-Adjusted Life Years at £5,964, which is three times more cost-effective than popular pharmacological comparators such as Mounjaro. By requiring zero clinician time, our programmes free capacity and reduce waiting lists.

The NHS 10 Year Plan focuses on improving access and reducing inequalities. We achieve this by ensuring our services are fully scalable, WCAG AA compliant, and accessible on any device. Over 130,000 people have been supported. Our programmes are co-designed with users, including a steering group of disabled individuals who are currently reshaping Be Mindful.

The NHS 10 Year Plan emphasises digital tools for self-management. Wellmind offers exactly this: interventions proven to enhance outcomes while empowering individuals to take control of their health. Results include clinically significant improvements in anxiety.

In short, the plan requests scalable, accessible, efficient digital care that empowers citizens. Wellmind Health already provides this at scale, with proven outcomes, cost savings, and inclusivity by design.

Health Insights: Using polygenic risk score assessments to deliver an actionable Genomics Population Health Service in the NHS

Background and Challenge

Traditional healthcare tends to react to illness, mainly treating chronic conditions only after they develop. This approach is no longer sustainable given the magnitude of today's public health issues. For instance, cardiovascular disease results in over 160,000 UK deaths each year, while obesity affects two-thirds of adults, costing the UK economy an estimated £98 billion annually. There is a vital opportunity to develop a health system that is more efficient, personalised, and focused on preventing common diseases.

The NHS aims to establish a Genomics Population Health Service, supported by the rapidly advancing field of polygenic risk scores. This revolutionary technology combines the effects of millions of genetic variants across the genome to produce a single score that indicates a person's overall genetic risk for common conditions, assessed through a single test taken once in a lifetime.

Providing these polygenic and integrated risk scores to clinicians and patients marks an important shift towards proactive, preventative care, as they can offer medically useful insights for about 70% of healthy adults. Using this approach effectively could prevent roughly a quarter of premature deaths among currently undetected high-risk individuals by avoiding common diseases - including heart disease, breast cancer, diabetes, and hypertension - conditions that account for 70-80% of NHS budgets.

Digital Solution

Our precision healthcare offering, Health Insights, provides a secure, end-to-end genetic risk testing solution. A saliva sample is sent to a specialised lab, where DNA is analysed to determine the sequence at millions of specific genetic locations. Using proprietary algorithms and quality control mechanisms, these variants are combined into a single, weighted polygenic risk score (PRS). When combined with demographic or clinical information, it forms an integrated risk score. This score is translated into a clear report, presenting the patient's individual genetic risk and providing clinicians with actionable insights into a patient's genetic predisposition to common diseases.

Implementation

Health Insights UK has been developed in partnership with leading global biobanks such as UK Biobank, Taiwan Biobank, and AllofUs. This ensures diversity in the data used to validate the clinical performance of our assessments. The solution is co-designed with patients and clinicians, is MHRA-registered, and is the first UKCA-marked test to combine genetic and clinical risk factors. It is offered through leading private healthcare providers, including Bupa and Spire Healthcare. We also have a partnership with Our Future Health, the UK’s largest health research programme, where we are calculating PRS for up to five million volunteers.

Impact and Outcomes

The Health Insights test has proven to have a significant impact on proactive healthcare. The UK version of the test has shown that 40% of those who take it are identified as high-risk for at least one common disease. In a study conducted jointly with the NHS, the integration of PRS into cardiovascular risk assessments resulted in changes in clinical management for 13% of patients whose genetics indicated an increased risk of cardiovascular disease. 98.5% found the test personally useful, and GPs reported that the added personalisation provided substantial value in shared decision-making regarding risk reduction options.

How does it achieve the ambitions outlined in the 10 Year Plan?

This technology is essential for delivering the NHS 10-year plan's Genomics Population Health Service and its shift from illness to prevention. Identifying an individual's genetic risk for common diseases before symptoms emerge enables earlier screening and treatment, allowing individuals and healthcare providers to make better-informed decisions. Additionally, genomics has been recognised in the plan as one of the five technologies to drive transformation across the NHS. The study, carried out in partnership with the NHS, clearly shows how this innovative approach can lead to significant improvements in clinical management.

4. An NHS Workforce Fit for the Future

Not only is digital innovation about empowering patients, but it's also about empowering care providers. By investing in digital skills, utilising AI, and leading in technology, the NHS workforce can spend more time with patients and less on administrative tasks. techUK members are working closely with the health service to build a resilient, digitally enabled workforce prepared for the future.

Informed Solutions: Transforming Clinical Trial Approvals Through AI Innovation
Background and Challenge

Clinical trials are vital for public health and economic development, with UK-based trials generating £7.4 billion GVA and supporting 65,000 jobs each year. However, manual review procedures for trial applications and manufacturing site inspections were time-consuming, resource-intensive, and prone to delays - hindering patient access to life-saving treatments.

Each year, The Medicines and Healthcare products Regulatory Agency (MHRA)'s Clinical Trials Unit processes over 1,000 complex applications, often needing revisions due to common issues. With a team of 30 expert assessors, onboarding and training new staff became a significant bottleneck. Much time was wasted reviewing ineligible or repetitive submissions instead of focusing on higher-value tasks like providing early scientific advice to sponsors.

MHRA, in partnership with Informed Solutions, has implemented a pioneering AI application to revolutionise the UK's clinical trial assessment process. Confronted with increasing volumes of complex applications for Clinical Trials and a limited pool of highly skilled experts, the project introduced AI-enabled knowledge retrieval and validation tools that streamline assessments, freeing MHRA's expert assessors' time for high-value tasks and enhancing the consistency of decision-making.

The new tools cut Good Manufacturing Practice (GMP) assessment time from up to three hours to less than five minutes - a 95% efficiency improvement - and save the equivalent of up to 180 full-time equivalent (FTE) days each year. This time can be redirected towards providing upstream advice to sponsors, making applications safer and more inspection-ready. The initiative supports MHRA's 2024–2027 Data Strategy, is based on solid ethical AI principles, and offers a scalable model for regulators worldwide.

Digital Solution

Two key AI-enabled products were developed:

1. GMP Compliance Checker: Automates verification of Good Manufacturing Practice credentials, reducing processing time from as much as 180 minutes to under five minutes (a 95% efficiency improvement).
2. AI-Enabled Knowledge Hub: Natural language understanding tool powered by text embeddings to retrieve relevant precedents and insights from historical applications and responses, accelerating decision-making, assessor training, and onboarding.

Implementation

The programme employed a multidisciplinary, user-centred approach by involving assessors, policy experts, data scientists, engineers, and clinicians. nine-week readiness assessment pinpointed opportunities and created proofs of concept, leading to rapid productisation into live tools within three months.

Robust testing, bias mitigation, and audit procedures ensured trustworthiness and safety. Co-design and close collaboration with MHRA's architecture, engineering, digital, and policy teams helped build trust and accelerate adoption.

Impact and Outcomes

The implementation of these improvements has led to significant benefits, including saving up to 180 FTE days annually in assessment workload and achieving a ~95% efficiency gain by reducing GMP validation from up to three hours to under five minutes. Assessors are now freed to provide upstream advice to sponsors, enhancing both the quality and speed of applications. The system also supports faster onboarding and upskilling of new assessors, helping to reduce workforce bottlenecks. Furthermore, the Knowledge Hub has improved consistency and confidence in decision-making, while overall staff satisfaction has increased as repetitive manual tasks have been reduced.

How does it achieve the ambitions outlined in the 10 Year Plan?

This initiative directly advances the Plan's aim to cut clinical trial setup times to 150 days by 2026 by automating key approval tasks and easing bottlenecks. It also aligns with the Plan's vision for regulatory reform that accelerates safe adoption of new treatments, including digital and AI innovations.

Through AI-enabled site validation and knowledge retrieval, the project demonstrates the Plan's emphasis on progressing data-driven decision-making and innovation while enhancing system capacity. Automating manual tasks and freeing up specialised staff time supports the Plan's aim of delivering sustainable efficiency improvements and value for money across health and care.

By embedding ethical, transparent, and scalable AI into core regulatory functions, this work supports the Plan's aim to position the UK as a global leader in digital health regulation, building public trust while enabling quicker access for patients to life-saving medicines and vaccines.

5. Powering Transformation: Innovation to Drive Reform

Breakthroughs in AI, genomics, robotics, and wearables are reshaping the possibilities of healthcare. techUK is helping the NHS harness these innovations to drive reform, speed up clinical trials, and make smarter, data-driven decisions. With the right adoption and scaling, the UK can lead the world in health innovation.

ORCHA: Elective care delays are growing – smart, safe, patient-centred digital tools can turn the tide and get people treated faster

Elective care backlogs are at crisis levels, with over 7 million people in England waiting for surgery or treatment. These delays are causing poorer outcomes, unequal access, and mounting pressure on NHS Trusts.

Yet, patient-facing digital tools in secondary care remain scarce, fragmented, and often lack the governance, interoperability, and clinical assurance required for impact. To achieve national recovery targets, NHS Trusts must speed up the deployment of integrated, clinically assured, patient-centred platforms that streamline pathways, empower patients, and deliver measurable outcomes at scale.

The NHS Elective Recovery Plan calls for faster, smarter solutions, and the 10-year plan underlines innovation and digital technology as its foundation. To tackle the elective backlog and deliver on national priorities, NHS leaders must act promptly to adopt clinically trusted, interoperable, scalable digital solutions that streamline elective pathways, empower patients, and promote an equitable waiting list system for all.

The NHS faces unprecedented pressure on its elective care services, driven by rising demand and limited capacity. As waiting lists grow, the effectiveness of current pathways is further hindered by low uptake of digital self-management tools and outdated communication and triage processes. These factors together create a perfect storm that reduces efficiency, causes delays in treatment, and negatively impacts patient outcomes.

The number of patients entering the elective pathway continues to increase, worsened by the backlog caused during the COVID-19 pandemic. Long waiting times often lead to patients' conditions deteriorating before they receive care, resulting in more complex clinical needs at treatment. This extends the average treatment time per patient, reduces throughput, and places additional pressure on multidisciplinary teams.

Although evidence-based digital tools exist to support self-management, behaviour change, and pre-habilitation, their adoption remains limited. Often, these tools are not integrated into clinical pathways or systematically offered to patients. In many cases, staff are unaware of the available digital support or lack the means to prescribe it to patients in a consistent, scalable way.

Despite sustained efforts to boost activity, the NHS continues to face a significant capacity gap in staffing, theatre availability, and bed supply. Workforce shortages - particularly in nursing, anaesthetics, and allied health professionals - restrict the ability to increase elective procedures. Many Trusts are already operating beyond their baseline capacity, leaving little scope to handle rising demand or surges in activity.

Traditional communication methods – such as paper letters and manual phone calls – cause delays and lead to high DNA (Did-Not-Attend) rates. Without digital automation, clinical and administrative teams spend considerable time chasing patients and processing information manually. This not only reduces operational efficiency but also leads to lost clinical time and poorer patient experience.

Digital Solution

ORCHA's CareQ is a plug-and-play digital health platform that enhances patient engagement and simplifies elective care pathways - from referral and triage to diagnostics, pre-hab, peri-operative care, discharge, and recovery.

Through optimised communication channels, CareQ delivers personalised, automated health tools, tailoring each step to a patient's pathway, risk profile and digital literacy to provide relevant and accessible support.

Using integrated NHS specialty data and RTT coding, CareQ securely identifies and contacts patients via SMS, RCS messaging, or the Trust's existing Patient Engagement Portal. Patients are then guided through a simple sequence of questions to confirm their needs and are matched with approved Digital Support Units, such as pain management, smoking cessation, alcohol reduction, and weight management.

Once matched, patients receive curated, clinically approved digital health apps to support self-management while awaiting treatment. Continuous engagement data and PROMs are gathered to optimise care pathways, reduce pressure on waiting lists, and enhance both patient outcomes and operational efficiency across the NHS.

Implementation

CareQ is a plug-and-play digital solution designed to effortlessly integrate with existing patient communication channels, from the point of adding patients to a waiting list through to treatment. We have partnered with several Patient Engagement Portal providers to ensure that the bundles of apps within CareQ can be automated to reach the patient efficiently, without causing confusion through extra communication methods.

During implementation, we collaborate with NHS providers to understand their workflows and agree on the scheduling of communications to patients through custom-designed templates. From there, CareQ is built to be automated, requiring minimal input from clinicians and operations teams.

Impact and outcomes

CareQ is revolutionising elective care by tackling wasted capacity, fragmented patient communication, and the opportunity to engage with patients in order to help them to wait well.

With CareQ, you can:

- Boost efficiency – reduce length of stay, avoid costly cancellations, and free up bed days.
- Improve patient outcomes – empower self-care, manage chronic conditions, and ensure continuity of care.
- Maximise ROI – achieve a tenfold return on your license cost through measurable productivity gains.

The following benefits are based on a Trust average waiting list size of 50,000 patients.

- Reduction in LOS - assumed a 5% decrease based on an average of 4 days at a cost of £350.00 per bed day, considering a waiting list of up to 50,000 with 25% activation and 50% engagement.
    - 1812 bed days saved for a cohort of 50,000 patients with an activation rate of 25% and engagement of 50%
- Re-Admissions Rate – using the average rate of 4%for a 5 day stay, and cost per bed day of £350.00, then using 6% of this (0.24%)
    - 15 re-admissions avoided, equivalent to 75 bed days

- Avoided Cancellations – based on validated cancellation rate of 7%, a 10% reduction in cancellations, and a £1000 cost per procedure with a waiting list of 50,000 patients.
    - An additional 350 protected procedures

How does it help achieve the ambitions outlined in the 10 Year Plan?

CareQ directly supports the delivery of the NHS Long Term Plan by embedding innovation and digital transformation at the centre of elective pathways. The Plan calls for digitally enabled care for all patients and acknowledges that national recovery depends on adopting proven technologies that free up clinical capacity and improve health outcomes. CareQ aligns with these national priorities by providing a scalable, interoperable platform that equips patients with clinically assured self-management tools, reduces unwarranted variation, and improves access to care regardless of geography or deprivation.

By streamlining engagement and communication through existing Trust systems, CareQ saves valuable staff time and facilitates early identification of patients needing extra support. This directly contributes to the Plan's commitment to deliver more proactive, personalised care and ease pressure on frontline services. Through ongoing monitoring and analysis of outcomes data, the solution promotes transparency and continuous improvement, supporting the Plan's aim to use digital solutions to measure impact, inform decision-making, and reduce health inequalities.

Ultimately, CareQ helps Trusts to maximise available capacity, treat patients sooner, and support people to stay healthier for longer, aiding the recovery of elective care backlogs while fulfilling the NHS's long-term goal of a more sustainable, digitally enabled health system.

Akrivia: From Days to Hours - Unlocking NHS Mental Health Data through Design

NHS secondary mental health services hold vast amounts of patient data, but this resource was often underused in practice. Interfaces were complex, workflows did not match clinical realities, and analyses needed large teams, including scarce data scientists. Consequently, creating research cohorts could take days, delaying studies and restricting access to valuable insights. The challenge was to make this data truly usable for NHS staff and researchers.

Akrivia had the data: over 4.6 million de-identified patient records from NHS secondary mental health and dementia services, regularly updated and enriched through NLP and AI to produce billions of data points. However, without usability, engagement remained low. We transformed the platform into a tool now actively utilised by NHS staff, universities, and private and third-sector collaborators.

We achieved this through an evidence-based, user-centred design process - based on NHS workflows, with prototyping involving clinicians and researchers, and through iterative testing. Cohort creation that previously took two days now takes just three hours.

Teams that previously needed 6 -8 members, including a data scientist, now operate in agile groups of 3 - 4 without depending on specialists. Overall, study preparation is approximately 60% quicker, facilitating faster trials and evaluations. Rare conditions can also be studied effectively, with personalised cohorts constructed through complex criteria- directly supporting the 10-Year Plan's goals of prevention, equity, and innovation.

Digital Solution

Akrivia's platform brings together over 4.6 million de-identified NHS mental health records, enriched through AI and NLP. Our role was to make this power usable. We designed an interface where researchers can drag and drop data fields, instantly view results, and fine-tune cohorts in real time. This evidence-based design approach turned a complex technical system into an intuitive, NHS-ready tool actively used across research and care.

Implementation

The solution was developed through close collaboration with NHS staff, researchers, and Akrivia's technical team. We ran workshops to understand real workflows, built interactive prototypes, and tested them iteratively with end users. Feedback loops ensured each design decision aligned with clinical and research needs as well as governance requirements. This co-design process turned a technically powerful platform into a practical tool that NHS teams could adopt with confidence.

Impact and Outcomes

Cohort creation that previously required two days now takes just three hours. Research teams have become leaner, reduced from 6 - 8 people (including a data scientist) to 3 - 4 without specialist dependence. Overall, study preparation is around 60% faster, enabling more rapid trials and evaluations. The platform also supports research into rare conditions by allowing highly specific cohort criteria, delivering personalised insights.

How does it help achieve the ambitions outlined in the 10 Year Plan?

The solution enhances NHS efficiency by cutting cohort creation time from two days to just three hours and reducing the team size required, thereby freeing scarce expertise. It strengthens workforce resilience by enabling clinicians and researchers to work independently of data scientists, while also advancing data-driven decision-making by making complex data usable and accelerating research by 60%. The ability to study rare conditions further improves access and aligns with the NHS 10-Year Plan's focus on equity and prevention. By enabling highly targeted cohort creation, the platform also supports prevention and early intervention. For example, researchers can identify patients with depression resistant to medication and investigate early markers, service pathways, and alternative treatment outcomes. This facilitates earlier detection of risks, more personalised interventions, and better-informed service design - directly supporting the 10-Year Plan's ambition to shift from treating sickness to preventing it.

Altertive: Transforming Escalation Through Digital Innovation

At West Hertfordshire Teaching Hospitals NHS Trust, escalation of deteriorating patients was hindered by outdated communication systems, inconsistent processes, and cultural barriers that made timely intervention difficult. Reliance on bleeps meant there was no clear visibility of whether an alert had been received or acted upon, creating uncertainty and delays. Staff surveys showed significant concerns over slow responses, difficulty reaching the right person, and a lack of confidence in the existing escalation process. Audit data confirmed that just 19% of elevated NEWS2 scores were being formally escalated, and safety incidents were linked to missed or delayed actions. Collectively, these issues placed pressure on frontline teams, limited their ability to focus on direct care, and undermined both patient and staff safety.

West Hertfordshire Teaching Hospitals NHS Trust partnered with Alertive to digitise clinical escalation, replacing outdated bleeps with NEWS2-triggered alerts, secure messaging, and real-time visibility. Piloted in the Acute Assessment Unit, the system

delivers alerts within 60 seconds and guarantees that 100 per cent of high-priority cases receive a structured response within the target time. Staff reported more reliable escalation, clearer accountability, and improved collaboration and efficiency. Building on this achievement, the Trust plans to expand across services, including maternity and paediatrics, sharing lessons with other Trusts. This digital innovation reflects the NHS's aim to transition from analogue to digital systems and empower staff with tools that improve care.

Digital Solution

Alertive is a secure communication platform for the NHS that replaces outdated bleep systems with instant, role-targeted messaging. At West Hertfordshire Teaching Hospitals NHS Trust, it was configured to generate automated NEWS2-triggered alerts directly from observations entered into the Electronic Patient Record. These alerts are designed to be delivered in under a minute to all relevant roles and include full patient context along with clear escalation actions. Each alert is tracked from sending to acknowledgement, providing real-time visibility, fostering accountability, and enabling quicker, safer decision-making across clinical teams.

Implementation

Recognising the need for systemic change, WHTH began working with Alertive to overhaul escalation procedures and co-develop a new digital pathway. From the outset, clinical leaders, ward nurses, Critical Care Outreach Teams, Sepsis and Hospital at Night specialists, governance leads, and patient representatives were all actively engaged in this co-design process, ensuring the final solution would be practical in clinical settings. Workshops and feedback sessions influenced everything from the routing of alerts to the language used in notifications. The new pathway included automated NEWS2-triggered alerts from the Electronic Patient Record, secure two-way messaging, and real-time updates on escalation progress.

The pathway was then piloted in the Acute Assessment Unit, a high-pressure environment where delays can have immediate consequences. This stress-testing allowed rapid cycles of improvement and ensured the technology would be suitable for use in other departments. By the end of the pilot, escalation had become a shared, system-led responsibility supported by a tool designed with, and for, the people using it daily.

Impact and Outcomes

The pilot delivered a transformation in how escalations were initiated, tracked, and acted upon. Every high-risk alert was acknowledged within the Trust's 15-minute target, and the average response time was around six minutes. Crucially, staff reported that the new process made it easier to involve the right responder quickly, reduced time spent chasing updates and gave them more time with their patients.

96 per cent of participating staff described communication between ward and response teams as improved, and nearly three-quarters felt that digital escalation had freed them from workflow bottlenecks. The visibility and audit trail built into the system created greater confidence and accountability across teams, while the inclusive, co-design approach meant the solution reflected frontline needs and realities.

The pathway is now prepared for Trust-wide rollout, with plans to expand into Maternity and Paediatrics. This process is more than just a technology deployment; it represents a cultural and operational shift towards a safer, more efficient, and more collaborative model of care, led by digital innovation developed in partnership with those who will use it.

How does it achieve the ambitions outlined in the 10 Year Plan?

Through the digital transformation of clinical escalation, this initiative addresses three key priorities of the NHS 10 Year Plan. It improves health system efficiency and capacity by replacing outdated communication methods with fast, reliable digital pathways, reducing delays and freeing staff time for patient care. It supports workforce development and resilience by providing clinicians with clear roles, real-time oversight, and streamlined workflows that lessen stress and uncertainty. It also promotes data-driven decision-making and innovation by integrating real-time alerts, secure messaging, full auditability, and transparent performance metrics into daily practice, thereby strengthening patient safety and enabling continuous improvement at scale.

6. Productivity and a New Financial Foundation

Digital innovation is critical to unlocking NHS productivity and building a sustainable financial foundation. From smarter resource allocation to system-wide efficiencies, technology enables the NHS to do more with less while improving outcomes. techUK members stand ready to partner with the NHS to deliver the productivity gains the health service urgently needs.

Livewire: Enhancing NHS Ambulance Care with Livewire Digital's RazorLink

The NHS 10-Year Health Plan aims to transform healthcare by encouraging digital innovation, shifting care from hospitals to communities, and emphasising prevention. RazorLink, a software communication technology from Livewire Digital, directly supports these goals by offering ambulances resilient, high-speed connectivity (4G, 5G, satellite).

This enables on-the-move telehealth, real-time remote specialist input, and digital access to patient records, leading to more effective clinical decision-making. In the Hybrid-Connex pilot projects, RazorLink achieved over 90% connectivity uptime and speeds of up to 150 Mbps, enhancing patient outcomes and safety, especially in rural or hard-to-reach areas, while supporting digital inclusion by guaranteeing equitable access to care.

The solution consolidates communications, enhances efficiencies, reduces operational and administrative costs, and supports NHS productivity targets (2% annual improvement). Real-world pilots demonstrated improved see-and-treat rates (31% of incidents managed without hospital transport), quicker ambulance turnaround, and significant cost savings (£237–£313 per avoided unnecessary hospital conveyance).

The RazorLink technology integrates smoothly with existing NHS systems, supporting current and future ambulance fleets, enhancing staff efficiency and minimising additional training requirements. Its adoption aligns with NHS procurement reforms and partnership models, offering a scalable, sustainable pathway for digital transformation that supports the strategic aims of the NHS 10-Year Plan.

The specific health and care challenge addressed by the Livewire Digital evidence pack for the NHS 10-Year Plan primarily involves modernising and transforming how urgent and emergency care, especially ambulance services, operate within the wider NHS system. The main issues include the continued reliance on manual, paper-based, or outdated analogue systems, fragmented digital connectivity in ambulances (particularly in rural or cellular “not-spots”), inefficiencies in clinical workflows, and the ongoing strain on hospital services such as A&E.

A key challenge is the limited ability of ambulance crews to access real-time patient information, specialist input, and current clinical records while attending incidents, especially when operating outside reliable cellular coverage. This often leads to unnecessary hospital conveyances - patients being taken to A&E when on-scene resolution or referral to community or remote specialists would have been sufficient. Such inefficiencies place unnecessary strain on both hospital departments and ambulance resources, cause a backlog of subsequent emergencies, and result in delays in patient care and handovers at hospitals.

Another considerable challenge is the digital divide: paramedics and patients in rural or connectivity-challenged areas may be excluded from the benefits of modern digital health tools, remote monitoring, and telemedicine - thereby reinforcing health

inequalities and hindering the NHS from genuinely providing community-based, preventative, and inclusive care. The NHS also faces issues with fragmented procurement and a patchwork of digital solutions that lack interoperability and scalability, making widespread transformation difficult and expensive.

Operationally, ambulance crews face rising administrative and workload pressures, worsened by inefficient paper processes, poor data-sharing between agencies, and lost time waiting at hospitals to hand over patients due to a lack of real-time information flow.

The Razorlink-powered Hybrid Connex solution was developed specifically to tackle these interconnected challenges. By providing always-on, high-speed connectivity (using a mix of 4G, 5G, and satellite), Hybrid Connex ensures ambulance staff can access clinical systems and specialists anywhere, delivering more effective care on scene through telemedicine and digital record access. The solution's strong, reliable connectivity reduces unnecessary hospital transports, shortens handover and turnaround times, boosts workforce satisfaction and safety, expands digital reach into underserved areas, and enhances clinical decision-making.

In summary, the main health and care challenges being addressed are: reducing unnecessary hospital transfers, improving digital inclusion, enabling community-based care through reliable connectivity, streamlining operational processes, enhancing workforce effectiveness, and supporting the broader NHS ambition to shift from reactive care to a digitally-enabled, proactive, and preventative healthcare model.

Digital Solution

The RazorLink-powered Hybrid Connex solution is an advanced digital connectivity system designed specifically for NHS ambulance services, tackling the critical need for reliable, high-speed data access even in the most challenging environments. Its main function is to combine multiple network technologies- namely 4G, 5G, and satellite -into a single, seamless connection, ensuring that frontline ambulance crews, no matter their location, have steady and uninterrupted access to clinical systems, digital health records, and remote specialist input.

At the core of the service is RazorLink's SD-WAN (Software-Defined Wide Area Network) technology, which intelligently monitors all available connectivity options and automatically chooses the fastest and most stable route for data traffic at any given moment. If a mobile (cellular) network becomes weak or unavailable - such as in rural blackspots or during major incidents - RazorLink immediately switches to

satellite or another available service, without any manual intervention needed by the crew.
This continuous connectivity supports a range of crucial digital health functions: real-time access to NHS patient records and electronic care plans, live video links or teleconsultations with hospital-based specialists, instant sharing of diagnostic data (such as ECGs or images), and the ability to receive AI-driven decision support at the scene of an emergency. It also facilitates remote monitoring and follow-up, helping to shift the focus from reactive hospital admissions towards proactive, community-based care.

Operationally, Hybrid Connex radically simplifies communications management for ambulance trusts. Instead of using multiple SIM cards, contracts, and devices, the solution employs a centralised, single hybrid service - reducing both administrative effort and costs. The software is compatible with existing NHS IT systems and ambulance fleet hardware, enabling straightforward integration without the need for complex upgrades or retraining.

Importantly, the technology is specifically designed for the realities of pre-hospital care: it offers more than 90% connectivity uptime, provides bandwidth speeds of up to 150 Mbps (as demonstrated in real-world pilots), and requires minimal user involvement - allowing clinical staff to concentrate fully on patient care.

Broader advantages include improved see-and-treat rates (more patients managed at the scene without hospital transport), reduction in handover delays at A&E, enhanced digital inclusion for rural areas, and tangible NHS savings through decreased unnecessary conveyances and streamlined operations. In short, Hybrid Connex is a scalable, future-proof enabler of digitally empowered, mobile healthcare delivery across the NHS ambulance service.

Implementation

Hybrid Connex was implemented through a collaborative, multi-stakeholder approach, bringing together NHS organisations, commercial technology partners, and funding bodies in a co-design process specifically tailored to the needs of UK ambulance services. The project was led by a consortium including NHS Arden & GEM Commissioning Support Unit, Excelerate Technology, Livewire Digital, Satellite Applications Catapult, and Vodafone, and received €5.7 million in co-funding from the European Space Agency’s 5G/6G strategic programme line and the UK Space Agency.

Deployment started with pilot installations in ambulances - most notably with the East of England Ambulance Service NHS Trust (EEAST) - to test, refine, and showcase the technology in real-world settings. NHS ambulance trusts across the UK were invited to join the pilot and share their specific requirements and operational challenges, directly integrating frontline feedback into the final system design. This active participation allowed the solution to be customised for user needs, ensuring that the hardware and software produced were practical, resilient, and compatible with existing NHS clinical workflows and IT systems.

The technical implementation was intentionally simple and non-disruptive: the necessary equipment could be installed in an ambulance within a single day, reducing vehicle downtime and operational impact. The pilot phases involved continuous review by paramedics, digital leaders, and service managers, who provided direct feedback on connection reliability, ease of use, and clinical value. These insights were then iteratively incorporated into updates and improvements.

The co-design process also benefited from demonstrations and feedback at professional forums such as the Emergency Services Show and the Ambulance Leadership Forum, where project partners and NHS users discussed operational lessons, technical integration, and future deployment pathways. This transparent, partnership-led approach has been vital not only for successful technical delivery but also for building trust and momentum for wider roll-out within the NHS.

In summary, the deployment of Hybrid Connex has been shaped by extensive partnerships between NHS organisations and technology companies, supported by external funding and a structured, user-centred co-design process. This collaborative approach ensured the technology could be seamlessly integrated into the real-world operational environment of UK ambulance services, maximise workforce acceptance, and deliver tangible service transformation.

Impact and Outcomes

The deployment of Hybrid Connex within NHS ambulance services has produced notable and measurable results, demonstrating its tangible influence on urgent and emergency care delivery. Pilot projects, particularly with the EEAST, have provided strong data showing key performance improvements aligned with the NHS 10-Year Plan ambitions.

Connectivity availability is a vital metric, with Hybrid Connex providing 93% uptime even in areas with minimal or no cellular coverage. This near-permanent high-speed connection, supported by a hybrid network of 4G, 5G, and satellite networks, ensures

ambulance crews can access clinical systems and digital patient records continuously, regardless of location. During pilot testing, available bandwidth reached 150 Mbps, enabling real-time video consultations, remote diagnostics, and quick data sharing. The service connected over 90,000 devices and used more than 3TB of data.

Clinically, the solution has enhanced the “see-and-treat” rate, with 31% of ambulance incidents resolved on scene in 2023, thereby avoiding unnecessary hospital transfer. This directly conserves resources and reduces pressure on emergency departments. External EMS studies estimate that each avoided hospital transfer saves between £237 and £313, significantly boosting NHS operational and financial efficiency.

Hybrid Connex also greatly lessens ambulance handover delays by enabling real-time data access at emergency department queues. Ambulance crews achieved 100% access to NHS digital records while waiting for patient handover, which speeds up the process and boosts ambulance availability for subsequent calls. This decreases overall response times and enhances patient experience.

From a workforce perspective, digital connectivity has enhanced paramedics’ ability to collaborate with hospital specialists on scene, improving clinical decision-making and safety. The solution’s design requires minimal additional training, promoting quick adoption and higher job satisfaction.

Operational advantages beyond clinical results include consolidating multiple SIM contracts into a single hybrid service per vehicle, streamlining communications, lowering administration, and reducing expenses. These efficiencies support NHS targets for a 2% annual productivity boost and align with the Plan’s 3% transformation investment commitment.

In summary, Hybrid Connex has proven scalability and effectiveness, delivering measurable improvements in connectivity reliability, on-scene treatment rates, cost savings, reduced handover delays, and workforce efficiency — all fostering sustainable improvements in NHS ambulance services.

How does it help achieve the ambitions outlined in the 10 Year Plan?

The RazorLink-powered Hybrid Connex technology supports the NHS 10-Year Plan by delivering digitally connected, community-oriented, and efficient healthcare through dependable mobile connectivity for ambulance services.

Enhancing prevention and early intervention: Hybrid Connex enables telehealth and remote monitoring directly from ambulances. This allows paramedics to deliver early intervention and manage conditions on scene, reducing unnecessary hospital admissions and supporting continuous patient care, even in rural or low-coverage areas.

Enhancing health system efficiency and capacity: Offering over 90% connectivity uptime and seamless integration of 4G, 5G, and satellite technologies, Hybrid Connex supports faster clinical decisions, real-time data sharing, and specialist consultations. This reduces ambulance turnaround times and hospital handover delays, improves see-and-treat rates (31% of cases resolved on scene), and cuts costs through SIM consolidation. These efficiencies help meet the NHS objective for 2% annual productivity gains and investment in transformation.

Supporting workforce development and resilience: The technology enhances workflows by offering real-time access to digital records and specialist support without the need for extensive training. This increases staff confidence, safety, and job satisfaction while reducing workload pressures, thereby strengthening workforce resilience as outlined in the NHS plan.

Improving access to services and reducing health inequalities: Hybrid Connex's hybrid connectivity overcomes rural digital exclusion by maintaining connections in low-network areas. This enables equitable access to diagnostics, telehealth, and personalised care, helping to reduce health inequalities and support NHS ambitions for inclusive, community-based care.

Advancing data-driven decision making and innovation: The platform supports AI, remote diagnostics, and integrated data flows within ambulance services. Real-time clinical data sharing improves diagnostics, treatment, and monitoring, underpinning NHS innovation and the shift from analogue to digital systems.

Hybrid Connex directly supports the NHS 10-Year Plan's goals on prevention, community care, digitisation, and workforce empowerment through scalable, innovative digital infrastructure tailored for frontline ambulance services.

Conclusion

The ambitions of the NHS 10-year plan call for a healthcare system that is preventative, community-focused, and efficient. Achieving this transformation will require not only bold vision from policymakers but also the innovation, agility, and expertise of the UK's technology sector.

techUK's members, particularly our SMEs, are already delivering solutions across each of these priorities. They are embedding prevention and early intervention through community-based care, empowering citizens with digital tools. They are deploying diagnostics to tackle inequalities, supporting the NHS workforce with AI and digital skills, accelerating clinical innovation through data, genomics, and robotics, and driving productivity gains to strengthen the financial foundation of the health service.

SMEs are uniquely positioned to offer fresh ideas, fast innovation, and locally based solutions that can be expanded throughout the NHS. By collaborating with the NHS, they can turn the ambitions of the 10-year plan into realistic, achievable results.

With the right frameworks for collaboration and investment, the UK can develop a health system that is more resilient, sustainable, and centred on people. techUK and its members stand ready to help make that future a reality.

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