The NHS local technology spend report

Beyond the hype – What local spending patterns reveal about the NHS's digital future

Contents

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Foreword

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We are at a significant moment for the NHS. The 10 Year Health Plan. Reform of the centre. Recent ministerial change. Clear ambition for AI, data, and a single patient record. And a multi-year funding commitment to back it. The way the NHS spends on technology, and what it spends that money on, matters more than ever.

Baringa set out to produce the first independent, data-driven assessment of NHS technology spend. They acknowledge it is "not a forensic national accounting view". That gap is part of the diagnosis. Their argument: how the money is spent matters more than how much, and prioritisation matters more than funding. Not everyone will agree, and that is the point. If there were simple answers we would have taken them already. We have to work the answers out, and act with urgency.

In chairing the digital committees at two very different trusts, I have seen the common themes. Trust boards, with competing priorities and limited digital expertise, cannot simply redirect spend from running the service safely today to find the money for what comes next. And the outcomes from technology investment typically take three to five years to come through. At a national level, the aggregate investment may be roughly right. As we see in this report, the way it currently reaches trusts is not. The risk is that we will not deliver against the ambition at the required speed.

The confusion of roles between national and local technology programmes is one of the key underlying problems, as I argued in my recent report. It is the product of decades of separate commissioning decisions, and the opportunity for intentional consolidation is of the same scale. The Department of Health and Social Care and NHS England should set a smaller set of standards, and enforce them more rigorously. It should hold identity, interoperability, and the shared services that need national scale. Delivery, configuration, and local choice belong with trusts. The same applies to the supplier market: standards and procurement, not the centre picking winners, creates healthy competition.

When the technology is fragmented, the patient often becomes its integrator, because they are the only person who sees the whole. Staff want to focus on patients, not battle technology. It is a great time to be a technologist in health, with meaningful work and plenty to do. The problems are large, and no one part of the system can solve them alone. Let's use this report as a prompt to work together on the solutions.

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Executive summary

The NHS is dear to the hearts of everyone in the UK, but over the last three years we have seen multiple reviews with a consistent message – it is falling behind. This is not through lack of ambition – the 10 Year Health Plan is clear about the direction of travel and presents a compelling case for change across all levels of the service, in particular in technology. But this report shows that the pattern of technology investment continues to follow a pattern of 'business as usual', a pattern that directs 65 pence in every pound to keeping ageing systems running, while the categories that would actually change clinical outcomes and shift care 'left' into the right settings – remote monitoring, population health interventions, AI-assisted triage and diagnosis – account for less than 10 pence in every pound.

What this means for patients

Behind every percentage point in this report is a patient. The family in Greater Manchester managing a parent's heart failure who could be monitored at home, but whose hospital cannot yet reach them remotely. The person in Norfolk waiting 14.9 weeks for a first outpatient appointment in a region that has invested least in the technologies designed to reduce that wait. The community in Birmingham where a virtual ward programme exists on paper but delivers 10.3 beds per 100,000 – a quarter of the national target – because the procurement came before the clinical programme was ready. Technology investment in the NHS is not an IT project. It is a patient safety decision that the system has deferred, year by year, capital cycle by capital cycle.

Germany invests 3.5% of its health budget in technology. The United States invests 4–6%. The NHS equivalent is approximately 2.3% of its total health budget – and the majority of that goes nowhere near transformation. The NHS needs to rethink how technology spend is prioritised, and quickly, as the cost of changing course in later years will only rise the longer it waits.

We believe this is the first independent, data-driven assessment of technology expenditure patterns across NHS trusts in England. It does not produce a forensic national accounting view. What it does produce – from invoice-spend data across more than half of English trusts – are robust directional findings that sharpen the debate, expose uncomfortable gaps, and frame a set of actionable conclusions for NHS leaders, government, suppliers and their investors.

We have focused the scope of this report on technology spend in Acute Trusts. Despite decades of organisational change in how care is locally commissioned and the ever-evolving role of NHS England, the power base in the NHS and the practical levers required to drive the reforms still reside with the leadership of Acute Trusts. It is Acute Trust boards that hold the most significant local technology budgets, the capital programmes, and the decisions that will

determine whether NHS digital transformation delivers on its promise. Now more than ever, there seems to be a growing disconnect between what is happening in these Trusts and the technology programmes driven from the centre, and tackling this disconnect is a key recommendation of this report.

Using supplier-level spend data across more than half of local NHS trusts, we set out what is being spent, on what, and – critically – what it costs the health service to continue as it is. The answer is between £1.5bn and £2.9bn every year in avoidable operational costs. These are emergency admissions that do not happen at Global Digital Exemplar (GDE)-designated sites, bed days that should be freed by shorter lengths of stay, and virtual ward capacity that is half of what it should be. Despite the unanimously positive response to the changes set out in the Darzi review in 2024, this is the sobering reality of where technology deployment currently stands in the NHS.

Why this report matters

Health policy in England is increasingly framed around a set of three shifts – moving care from hospital to community, shifting from sickness to prevention, and completing the move from analogue to digital. Those 'left shift' themes are now visible across national programmes and procurements – frontline digitisation, the Federated Data Platform (FDP), the NHS App, the Single Patient Record (SPR), and the newly announced Health Data Research Service (HDRS).

Against that backdrop, there is a simple but important question that no one has yet answered with data: what is happening at a local level in NHS technology and where is that spend actually going? Public and press rhetoric can create the impression of a system moving rapidly towards AI, remote care, patient-facing tools, and preventative models. The spend data, whilst imperfect, offers a more grounded and sobering view.

Seven findings that demand a response:

1. £1.3bn total estimated local technology spend at its peak in FY24/25, but 65% of this is directed to core estate maintenance – keeping the lights on.
2. Under ten per cent of total local technology funding being spent on the enablers of clinical change is not enough, and it is not growing.
3. Regional inequality is hardening, not softening.
4. The correlation between investment and outcomes takes time.
5. The structural fix requires a five-year commitment, not annual bids.
6. AI is about to reshape the technology landscape – and the response from the NHS is unclear.
7. Local programmes are often duplicating national investments – and no one is accounting for the combined cost.

1. £1.3bn total estimated local technology spend at its peak in FY24/25, but 65% of this is directed to core estate maintenance – keeping the lights on

65% of the total estimated technology spend of £1.3bn – approximately £845m – goes to core estate maintenance: EPR (Electronic Patient Record) licences, infrastructure, back-office tools. Only 9.6% reaches the categories most likely to directly reduce demand on acute services. We are not saying the NHS is an innovation desert, but focusing on short-term, politically driven targets means it is currently spending like one.

2. Under ten per cent of total local technology funding being spent on the enablers of clinical change is not enough, and it is not growing

True 'left shift' enablers (technologies that shift care out of expensive acute hospital settings into primary care, community, and home settings) for example, remote patient monitoring, population health interventions, AI-first clinical tools – have grown only modestly in four years of observation. The spend on all left shift enablers shows a pattern of spiking after COVID before contracting again. Remote patient monitoring, the technology that underpins the virtual ward programme, totals less than £37m nationally over four years. At this rate of investment (0.8%), the 2026 target of 40 virtual ward beds per 100,000 population will not be met in this decade. The NHS overwhelmingly buys technology based on how acute trusts and their boards are performance managed, and that architecture still rewards acute throughput over prevention.

3. Regional inequality is hardening, not softening

The North West invests 14.7% of its technology spend in left shift categories; East of England invests 5.1%. The same East of England region records the worst Referral to Treatment performance, the longest median waiting times, and the second-lowest virtual ward adoption rate in England. This is a system where the regions that most need to shift care, rebalance health inequality and get people back into work are least equipped to do it.

4. The correlation between investment and outcomes takes time

NHS and international evidence points towards a 3–5 year lag between technology investment and measurable outcome improvement. Regions and trusts that invested earliest are already seeing results. The purchasing wave visible in the current data – concentrated in 2022–2025 – will open its outcome window around 2027. Cutting programmes now to manage short-term capital pressure is the single most expensive decision the NHS could make.

5. The structural fix requires a five-year commitment, not annual bids

The CapEx/OpEx pendulum – the cycle by which NHS digital investment surges when capital is available and collapses when it is not – has broken more transformation programmes than any clinical or technology failure. Even if the NHS were to spend to the same level as the German benchmark, that investment would not deliver returns if it arrives as sporadic capital. It requires a multi-year, revenue-based settlement that survives Spending Review cycles. For NHS Trusts, the Spending Review (SR) is the mechanism through which

HM Treasury sets multi-year expenditure limits for government departments, including Department of Health and Social Care (DHSC). Historically conducted every three to five years, each SR cycle determines the capital and revenue settlement available to NHS England – which in turn shapes what Trusts can plan and commit to in their digital programmes. The result is the stop-start investment pattern this report identifies as the single most damaging structural feature of NHS technology procurement.

6. AI is about to reshape the technology landscape – and the response from the NHS is unclear

The shift from Software as a Service (SaaS) procurement towards AI-enabled, low-cost builds is already beginning across many industries, including in a small number of early adopter NHS Trusts. Very few NHS organisations have made genuine investment in generative AI; most are either relying on limited national Microsoft Copilot deployments or have no active GenAI strategy at all. Irrespective of whether it happens at a national or local level, the opportunity to embrace the power of AI to collapse the cost of basic technology is real, we are seeing it in many other industries and the window to build capability in order to decide where and how this should happen is narrowing. The critical gap here is not technology – it is technology strategy, skills and governance.

7. Local programmes are often duplicating national investments – and no one is accounting for the combined cost

NHS England has sought to reduce the historic pattern of commissioning overlapping technology capabilities across major programmes: multiple data platforms with similar functions, parallel analytics infrastructure, digital tools built programme-by-programme rather than once-and-shared, but this is not a commentary on national programmes. When local trust budgets simultaneously fund their own versions of the same capabilities, the combined cost to the system – in money, skills, and delayed implementation – far exceeds the headline spend of any single programme. There is no programme currently tasked with mapping what exists, what is being built, and what should be rationalised. This is not a technology problem. It is a local governance failure that compounds every other structural weakness identified in this report.

Despite the challenging picture we have set out, there are, however, clear signals of progress – the Health Data Research Service (HDRS) could grow to become the NHS's most strategic asset. The data discipline that the analysis in this report demands is precisely the infrastructure that HDRS requires to function. Accelerating HDRS is not a separate agenda from the investment programme described here. It is the same programme that offers the NHS a uniquely valuable asset, viewed from the demand side rather than the supply side. Section 13 sets out why HDRS is the infrastructure decision that unlocks everything else.

The NHS local technology spend report
Beyond the hype – What local spending patterns reveal about the NHS's digital future

Context and the post-peak technology picture

The NHS in England operates through approximately 215 acute, community and mental health trusts, alongside integrated care systems, primary care networks and arm's-length bodies that together constitute one of the most complex healthcare delivery architectures in the world.

Understanding where technology investment flows through this system – and where it does not – requires disaggregating a budget that is simultaneously national in its planning and hyper-local in its execution. Central programmes set direction; trust boards sign the majority of the contracts that tie directly to frontline care; and the gap between the two is where strategic ambition to improve outcomes either happens or not.

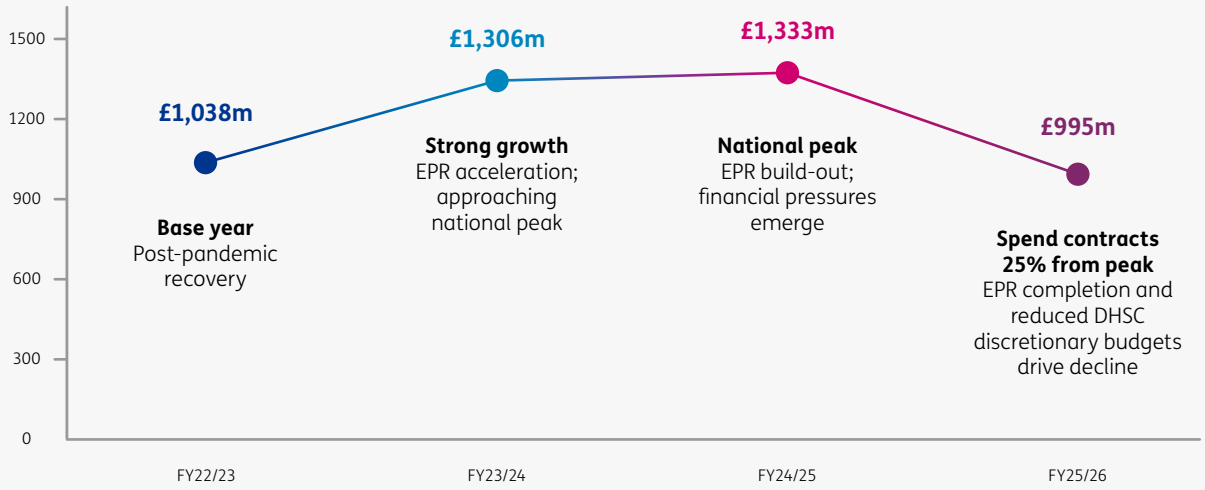
About this report

We have written this report to bring together a wide number of challenges in NHS technology that can be framed under one broad problem statement – there is no single source of the truth behind what was happening in technology at a local NHS Trust level. Despite a large amount of interest from the public, NHS leadership and the technology community, the picture is very confusing for everyone – for as many examples as there are of promising innovation and adoption, there is an equal number of examples – often lived examples – where the NHS has felt more technologically disjointed than ever.
We therefore developed a proprietary analysis of NHS trust-level technology procurement data from more than half of the NHS Trusts across four financial years – to provide what we believe is the most granular independent picture of NHS technology spend currently available. Our purpose is not to advocate for a particular supplier or solution set. It is to give system leaders the evidence base to ask better questions: about where the money is going, whether it is aligned with the three shifts, and what a credible path from the current spend pattern to the 10 Year Health Plan's ambitions actually looks like – even in a period of political transition.

The NHS is at a key point in its technology spending cycle. Across the 107 English NHS trusts in our analysis, visible external supplier spend rose from £1.04bn in FY22/23 to a peak of £1.33bn in FY24/25 – a 28% increase over two years. Extrapolated across all 202 English trusts, that peak represents approximately £2.5bn in external technology supplier spend. This has been driven largely by a need to catch up in the deployment of basic systems – in particular the faster deployment of electronic patient records (EPR), seen by most as basic table stakes for the running of any hospital, and large IT infrastructure programmes backed by capital from the DHSC. When internal IT costs are included, this rises to £4.1bn, based on the independently compiled total for FY24/25 by Future Health Intelligence.

That spending cycle has now turned. Observed trust spend is tracking to approximately £995m in our sample – equivalent to c.£1.9bn nationally in FY25/26, a 25% contraction. This is a result of capital budgets tightening and the NHS England technology programme consolidating around a smaller number of priorities. The question the sector now faces is not whether to spend less, but whether it is spending what remains on the right things.

Total spend (all trusts)



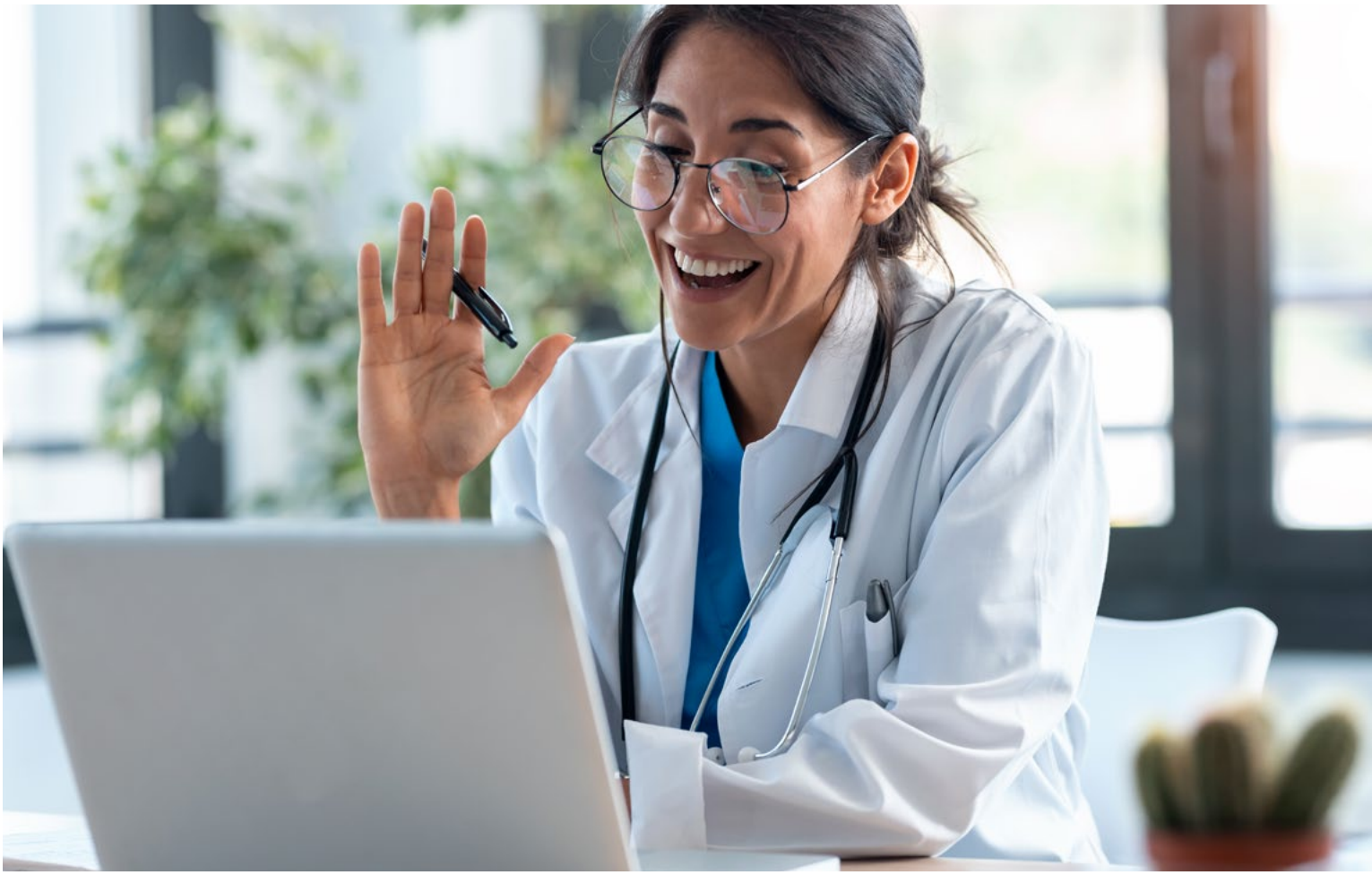
Source: AdviseInc invoice spend data. AdviseInc data covers 30 of 42 NHS England Integrated Care Boards (ICBs) (71%). Regional distribution passes statistical representativeness testing at standard thresholds.

That question was already central to the government's 10 Year Health Plan when it was published in 2025. On technology specifically, it committed £10bn over three years through the Spending Review settlement, with EPR completion, AI adoption and data infrastructure as the principal investment themes. It also set in train a significant structural change – the planned merger of DHSC with NHS England – designed to reduce duplication and sharpen accountability between policy and delivery.

The resignation of Wes Streeting as Secretary of State on 14 May 2026 injects meaningful uncertainty into all three of those commitments. Streeting was the political architect of the 10 Year Health Plan and the DHSC/NHSE merger; his current successor, James Murray, has inherited both the reform agenda and the question of whether to continue it at the same pace and in the same form. For technology suppliers, integrated care systems and investors, the immediate practical implication is a period of slower decision-making at the centre and potential re-prioritisation of the programme portfolio. The directional case for NHS digitisation – grounded in clinical need and fiscal logic rather than any single minister's agenda – remains intact. But the institutional machinery that was meant to accelerate it is now in another state of flux. This is another reminder that local NHS Trust leadership cannot wait for political stability to take action and to recognise that adoption of innovative technology is within their own power and budget to implement, regardless of the macro changes outside of their control.

We recognise that local technology spend can often be sporadic and tactical in nature, responding to specific local needs. But two important reasons support treating this analysis as a genuine signal. First, the same spending pattern appears across all suppliers before any narrower category distinctions are applied. Second, several innovation-led categories show the same shape: a peak in 2024, followed by softer spend in subsequent years. This is consistent with a period of post-pandemic experimentation giving way to a more constrained environment shaped by NHS financial pressures, tighter prioritisation of capital budgets, and a stronger focus on extracting value from already-committed foundation programmes. Our analysis shows that this residual activity in the later years was focused on the basic technology required to support the back- and mid-office of an NHS Trust, for example financial systems, patient administration and staff rostering.

The key question we have set out to answer is no longer simply whether there is enough "spent on NHS technology", but what kinds of technology continue to attract repeatable spend when budgets tighten. The visible answer – EPR, infrastructure, cyber, operational tools – is not a surprise. But it is a problem for the local NHS leaders who have baked assumptions into their five-year plans around the shift of activity out of the acute environment, who will find that they don't have the budgets to invest in innovation when and where it is needed the most. It is also a significant problem for the 1,000+ UK companies that are building solutions to solve some of our most pressing issues in the NHS that may revert to the well-trodden path west to the US, after failing to gain traction in the NHS.



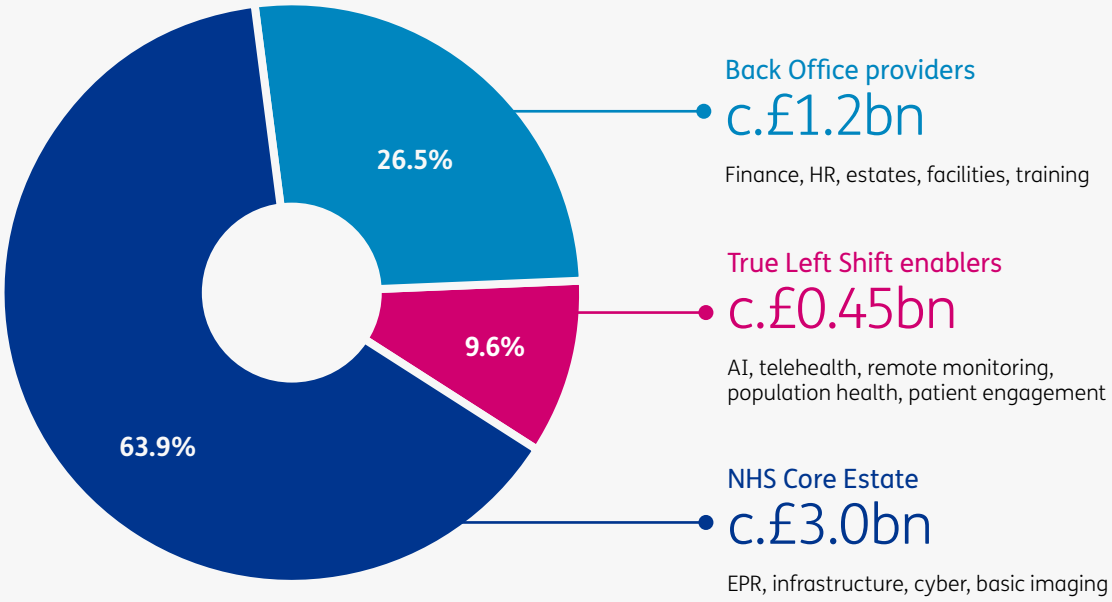
The NHS local technology spend report
Beyond the hype – What local spending patterns reveal about the NHS's digital future

Where the money actually goes

When suppliers are grouped into three pragmatic buckets – NHS Core Estate, Back Office providers, and True Left Shift enablers – the spend mix is striking. Across the combined observed four-year universe, NHS Core Estate accounts for 63.9% of visible spend, Back Office providers for 26.5%, and True Left Shift enablers for only 9.6%.

The 10 Year Health Plan describes an NHS that is digital by default, preventative in focus, and integrated across care settings. Translating that ambition into procurement reality requires spending a materially different proportion of the technology budget on the categories that enable it. The current pattern falls well short.

Estimated national four year spend across different supplier groups



Source: AdviseInc

9.6 per cent of estimated national NHS technology spend reaching the categories most associated with AI, remote care and prevention is not consistent with a system taking the 10 Year Health Plan seriously.

EPR and the core estate

The dominant expression of spend is the EPR and core-estate category. Estimated national spend on EPR and the core estate rose from approximately £360m in FY22/23 to £523m in FY23/24 and £549m in FY24/25 – a 52% increase across three financial years before the contraction in FY25/26. The supplier stack is narrow and incumbent-led: Epic holds clear market leadership, followed by Oracle (Cerner) and System C, with Dedalus and the Oracle legacy estate also significant. The top three account for around 66% of observed EPR spend; the top five for more than 86%. That concentration is not surprising. NHS England's £1.9bn frontline digitisation programme explicitly prioritised EPR coverage, and public policy has backed it. But it creates a structural dynamic: when a small number of large platform vendors dominate spend, every other category must compete for a shrinking share of residual budget. More innovative solutions do not just face procurement complexity – they face gravitational pull towards the installed base.

EPR investment: the benefit realisation gap

The scale of NHS investment in EPR is not in question – the £1.9bn Frontline Digitisation programme is real, and EPR coverage has expanded materially. What is increasingly questioned is whether the investment is delivering the clinical and operational benefits it promised. The on-the-ground reality is that change management has lagged system deployment: clinicians using new EPRs in old workflows, interoperability falling short of what was specified, and productivity effects that have been slower to materialise than the business cases anticipated. NHS England has correctly recognised this and shifted focus in 2025/26 toward benefit realisation and adoption support rather than further system roll-out.

The damage from programme cancellation compounds the problem. A pattern has emerged where nationally mandated digital programmes – some with significant local investment already committed – are paused or cancelled as the centre pivots to short-term waiting list and elective recovery pressures. Each cancellation leaves a wake of sunk cost, supplier uncertainty, and local NHS teams reluctant to recommit to the next national programme. The technology estate suffers not just from under-investment but from inconsistent investment – and inconsistency is as corrosive to digital maturity as insufficiency.

This is not hypothetical. As of May 2026, the North West, East of England, and Yorkshire and Humber regions all have EPR installations that were delayed or left incomplete under the Frontline Digitisation programme, which closed in March 2026. The cost of completing those deployments must now come from the Frontline Productivity Programme – a budget intended for the next generation of technology investment, not for finishing the last one. The Frontline Productivity Programme carries an estimated £500m budget for FY25/26, within a £2.5bn overall envelope. Absorbing EPR completion costs before that money can drive genuine innovation is a direct consequence of the inconsistent investment pattern this report identifies. (Source: HSJ, May 2026.)

NHS England's One Digital programme – a £148m component of the broader £7.4bn DHSC/NHS England digital investment plan announced in March 2026 – is explicitly designed to build the digital foundations that local technology investment depends on: data infrastructure, digital workforce capability, and interoperability standards. Trusts planning their technology roadmaps should treat One Digital as complementary to, not a substitute for, local investment decisions. The programme does not replace the need for Trust-level procurement capability, but it does signal a renewed centre-led ambition to address the structural barriers – connectivity, data standards, workforce – that have historically constrained local technology adoption.

The human cost of this delivery failure is now on the record. NHS England chief executive Sir Jim Mackey publicly acknowledged in May 2026 that the health service's record on EPR implementation was 'really poor', that the NHS had 'overpaid', and that 'every installation is treated as though it is a single one that has never happened before'. He confirmed he had begun personally signing off all new EPR deployments from autumn 2025 following incidents including a linked stillbirth at Sheffield Teaching Hospitals and a critical incident at Nottingham University Hospitals.

Independent research from the Health Foundation, drawing on 1,725 NHS staff surveyed between July and October 2025, quantifies the gap between installation and benefit. Three-quarters of staff believe EPRs have improved patient care – but only 37 per cent say clinical practice is enhanced by their EPR in practice. Seven in ten regularly use more than one EPR system in their role. And 44 per cent report receiving no training at all on the system they are expected to use. The conclusion from the Health Foundation is unambiguous: 'billions have been invested in getting EPRs through the door and comparatively little in making them work well'. This is the benefit realisation gap the NHS must now close – and it cannot be closed by further EPR procurement spend alone.

Software licensing, infrastructure and operational tools

Beyond EPR, a substantial share of visible spend sits in renewing back office software licences, enterprise infrastructure, cyber, identity, workflow and operational tools. Some of this is strategic; much is simply the cost of running a large and heterogeneous technology estate. Either way, it reinforces the same conclusion: when budgets are constrained, the installed base retains priority. New entrants and innovation-led suppliers face a structurally harder path to repeatable scale.

What this means for system leaders

- Two-thirds of local technology spend is maintenance, not transformation. System leaders should be able to articulate the proportion of their technology budget that is genuinely enabling the Darzi 2024 review ambitions – and challenge themselves if that figure is under 15%.
- EPR benefit realisation – not EPR procurement – is now the priority. Sir Jim Mackey's personal sign-off on new deployments signals that the centre has recognised the pattern. Boards should be asking their CDIOs (Chief Digital Information Officers): what is our training completion rate, and what is our EPR usability score?
- The £500m Frontline Productivity Programme is real money, but it is arriving late and is being directed primarily at ambient voice technology (AVT) and cyber security. The funding also requires careful planning by Trusts. NHS capital released late in the financial year is subject to "use it or lose it" pressure – i.e., it needs to be spent by the end of the financial year, meaning trusts need to have planned their procurement processes in advance. This approach to large one-off capital funding also runs counter to the typical annual subscription-based licences more commonly used by technology suppliers. Trusts that wait for confirmed fund availability before beginning supplier engagement will consistently find themselves behind the procurement curve, or losing credibility with suppliers in rushed procurement processes every March.

Run vs Transform: how the NHS compares

The 65% of total spend on 'running the business' vs the 10% on 'transform' is striking, not least because this is an organisation that is attempting to complete one of the largest transformations in the world, with technology spending patterns to reflect it. But it only tells half the story. The more instructive comparison is with sectors that have successfully modernised their technology estates – because almost without exception they did so by addressing two constraints simultaneously: they grew the total technology budget and they rebalanced the run/transform ratio. Across large enterprises, the Gartner 'Run–Grow–Transform' framework places the broad cross-industry average at 60–80% run and 20–40% change, with top-quartile modernising organisations sustaining 30–45% change spend during active transformation periods. The NHS at 65% run sits within the broad enterprise norm. But comparisons with specific sectors tell an interesting story that the NHS could learn from.

UK financial services – the most directly comparable large-scale, regulated, legacy-burdened sector – currently allocates 60–70% of technology budgets to 'run the bank' activities, according to McKinsey research across major institutions. Leading banks are actively targeting a 50:50 split as a multi-year transformation goal, and some have already achieved it. Critically, they are doing so from a base technology budget of 6–10% of operating costs – three to four times the NHS's 2.3%. Their absolute innovation spend is therefore a multiple of the NHS's, even at similar run percentages.

Closer to home, an NAO report on police technology in England and Wales (November 2025) found that police forces spend 97% of their £2bn annual technology budget on maintaining legacy systems – leaving just 3% for new investment and transformation. The NHS at 65% is significantly better positioned than UK policing. But this is not a comfortable baseline: it reflects a common pattern of UK public sector technology underfunding that leaves organisations trapped in a maintenance cycle they cannot break without a structural intervention.

In US healthcare, hospitals spend an average of 4–6% of total operating expenses on technology (Definitive Healthcare, 2024) – nearly 60% more than the NHS as a proportion of operating costs. Post-pandemic, 85% of US health systems increased their digital and IT budgets, with clinical workflow optimisation, data platforms, and AI adoption becoming primary investment categories. The NHS is not just behind on the run/change ratio – out of necessity it is working from a smaller absolute envelope within which to make that rebalancing happen, making the need for rebalancing even more important.

Lord Darzi's 2024 review described the NHS as suffering from 'capital starvation', with the UK investing £37bn less in health-related capital between 2010 and 2024 than comparable OECD countries. This is the structural explanation for the 65% maintenance share: when capital is chronically scarce, organisations protect operational continuity at the expense of transformation spend. Breaking the cycle requires both a deliberate policy to ring-fence transformation budgets from year-end capital raids – the very mechanism the five-year settlement recommendation in this report is designed to create.

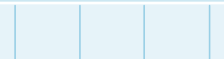
A realistic multi-year target for the NHS would be to close the maintenance share from 65% toward 55%, while simultaneously growing total technology spend toward the 2.5% of operating budget that the Spending Review investment makes possible. Neither move alone is sufficient. Both together would put the NHS on a trajectory consistent with comparable health systems that have begun the digital transition.

The NHS local technology spend report
Beyond the hype – What local spending patterns reveal about the NHS's digital future

The missing left shift

The data does show left shift and innovation-led spend. These categories are not absent – they are comparatively small, more uneven by geography, and less persistent over time than the public narrative implies.

The 10 Year Health Plan and subsequent Darzi review are explicit: care must shift from hospital to community, from treatment to prevention, from reactive care to proactive intervention. The technology categories that enable this shift should be the growth story in NHS procurement. The spend data shows they are not.

Category	FY22/23	FY23/24	FY24/25	FY25/26e	Trend
AI-first	£3.9m	£15.6m	£4.3m	c.£5.8m	 Spike-and-contract
Remote patient monitoring	£5.6m	£4.5m	£6.0m	c.£4.4m	 Flat / patchy
Telehealth	£1.4m	£1.5m	£2.2m	c.£1.1m	 Minimal scale
Population health	£6.7m	£30.0m	£25.7m	c.£15.2m	 Post-peak
Full left shift combined	£17.6m	£51.6m	£38.2m	c.£26.5m	 Peaked FY23/24

Source: AdviseInc category-level invoice spend, 107 English NHS trusts (observed basis). FY25/26e adjusted from YTD data with 17.5% central uplift.

The pattern is consistent across categories: a peak in FY23/24 – the year of maximum post-pandemic experimentation and NHS innovation rhetoric – followed by contraction as budget pressure tightened and the installed-base priority reasserted itself. Innovation categories are being used, but not yet bought repeatedly at the scale needed to dominate the spend mix or deliver system-wide impact.

The NHS talks left shift. It procures core estate. Until the categories most associated with prevention, remote care and AI show the same repeatability and persistence as EPR spend, the ambition will remain aspirational rather than operational.

The structural explanation for this gap has now been quantified externally. The UCL Global Business School for Health's inaugural Health of the Health System Index – based on polling of 855 senior NHS managers – found a 31 per cent gap between how important NHS leaders believe prevention to be and how well their organisations are actually delivering on it. Index authors describe this as 'not a cultural failure – it is a design failure'. Performance frameworks and funding models reward hospital activity, elective throughput and waiting list metrics. Prevention budgets are cut when pressure spikes – and in today's NHS the pressure never stops spiking.

Crucially, in our interactions with NHS leaders, many of them doubt whether current reforms will improve healthy life expectancy or reduce avoidable admissions – a damning admission from the people responsible for delivering the 10 Year Health Plan. Our procurement data shows the same structural dynamic: the NHS overwhelmingly buys what its incentive architecture rewards it to buy, and that architecture still rewards acute throughput over prevention. Changing the metrics, funding flows and performance frameworks is a precondition for changing the spend pattern.

What this means for system leaders

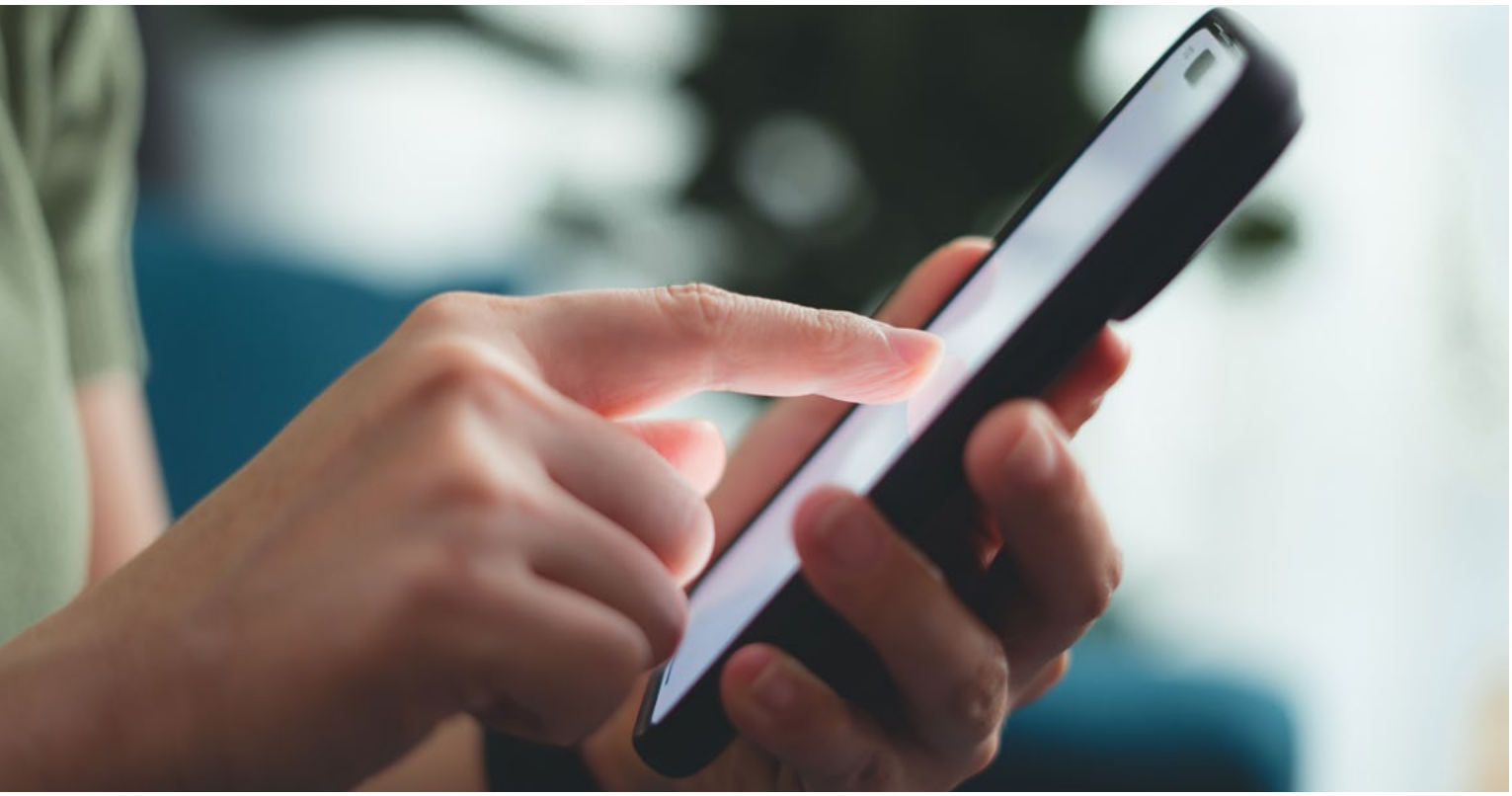
- 9.6 per cent of local technology spend is reaching left shift categories. The 10 Year Health Plan requires that proportion to grow significantly. If the incentive architecture does not change – metrics, funding flows, performance frameworks – the procurement pattern will not change either.
- Prevention budgets are structurally the first to be cut under operational pressure. System leaders should model explicitly what prevention spend they are protecting, and make that a board-level performance indicator alongside elective recovery.
- The hit-and-miss pattern identified in the data is an opportunity: trusts with digital maturity are already delivering. Peer-to-peer adoption pathways – supported by ICBs – are more likely to shift spend than national mandates applied uniformly.

The NHS App: the most underleveraged left shift asset in the system

With over 35 million registered users, the NHS App is the largest patient-facing digital channel in Europe. It already supports appointment booking, GP record access, prescription management, and referral tracking.

The gap between what the NHS App currently does and what it could do is one of the largest untapped opportunities in NHS technology. Many NHS Trusts, GPs and clinical leaders will always fear change, particularly where it involves perceived loss of governance or control over the clinical pathway. However, with bold leadership and robust information governance, the app has the potential to remove numerous layers of unnecessary steps to the patient. Genuinely scaled deployment could support care navigation that reduces unnecessary attendance; remote monitoring integration that keeps patients engaged between appointments; mental health self-management tools at population scale; prevention and vaccination programmes delivered through a channel patients already use. The 10 Year Health Plan's shift from sickness to prevention depends on a patient engagement infrastructure – and that infrastructure already exists, largely undeployed.

The criticism from within the system is consistent: the App has been developed in isolation from clinical pathways, has not yet integrated meaningfully with secondary care, and its personalisation capability remains limited. Fixing this is not a technology problem – it is a commissioning and programme integration problem. NHS England's ability to drive App adoption as a primary left shift channel will be a significant test of whether national digital ambition translates to local clinical reality.



The NHS local technology spend report
Beyond the hype – What local spending patterns reveal about the NHS's digital future

Flypapers and deserts – why some Trusts are innovative technology adoption hubs, and others are a long way behind

The regional lens reveals a market that is uneven rather than uniform. On observed regional data, the North West has the highest left shift share at approximately 14.7%, while the East of England sits at approximately 5.1%.

This is a continuation of what we see across the NHS, investment in innovation is typically driven by the local and regional NHS leadership – it is rarely correlated with Trust size or reputation. Milton Keynes NHS Foundation Trust, the Royal Free, Alder Hey, Salford Royal, Moorfields – these are all well-known 'flypaper' Trusts for technology adoption, absorbing innovation spend and concentrating relationships with emerging suppliers. Others remain comparatively sparse – deserts where innovation-led procurement is thin and the installed base dominates even more heavily than the national average.

Region	Total observed spend	Spend per member of the local population	Left shift spend	Left shift %	vs. National average
North West	£476.6m	£63	£70.0m	14.7%	+5.1pp
South East	£188.3m	£20	£23.0m	12.2%	+2.6pp
North East & Yorkshire	£360.4m	£44	£39.7m	11.0%	+1.4pp
Midlands	£338.9m	£32	£31.7m	9.3%	-0.3pp
South West	£318.2m	£56	£24.8m	7.8%	-1.8pp
London	£463.7m	£48	£28.2m	6.1%	-3.5pp
East of England	£246.3m	£39	£12.7m	5.1%	-4.5pp
England (sample)	**£2,392.4m**	**£42**	**£230.1m**	**9.6%**	–

"Flypaper trusts" are organisations with the digital maturity, leadership commitment and implementation capacity to absorb and sustain new technology adoption, they are prepared to take perceived risks as they recognise that there is greater risk in standing still. For suppliers in these categories, identifying and prioritising these trusts is not optional. It is survival strategy.

Flypaper characteristics tend to cluster: academic medical centres with research income, trusts with strong CIO/CCIO (Chief Clinical Information Officer) leadership, organisations that participated in Global Digital Exemplar or WTLP programmes, trusts with above-average capital allocations, and Integrated Care System (ICS) digital leadership at the integrated care level. These tend to be the same trusts that appear repeatedly in supplier case studies, NHSE innovation programmes, and healthtech investor due-diligence conversations. There is a significant opportunity for all Trusts to learn from these characteristics and start to identify the things that are holding back their spend or digital adoption. We recognise that in the NHS, this form of cross-learning is often easier said than done, either because local politics or professional egos start to get in the way. It should therefore also be incumbent on NHS England, and DHSC going forwards, to challenge Trusts on digital adoption and spending patterns, in the same way they would in other areas of Trust performance management.

The conclusion for anyone working in local technology is this: left shift spend is not going to emerge simultaneously across 202 trusts. It will continue to cluster in flypapers first, diffuse to adjacent organisations second, and reach true national scale – if it does – only through the combination of national mandate, framework procurement, and replication of proven models at pace. Suppliers should plan for a long and arduous tail, not a wave of adoption.

The NHS local technology spend report
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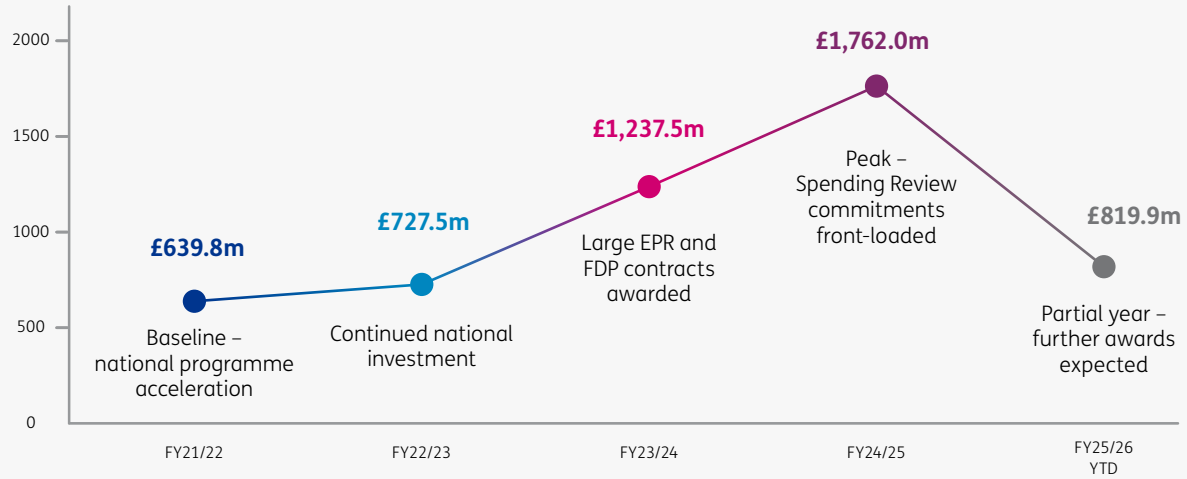
National versus local – the two-speed market

It is important to recognise that the local NHS technology landscape cannot be analysed in isolation from national spend. The NHSE contracts awarded to technology suppliers provide a contrasting picture to the trust-level data. After deduplication, it shows NHSE-awarded technology-sector contract values rising sharply over the last five years. Some are describing this as a two-speed market, with national programmes operating at pace and scale, akin to a motorway of funding and national backing; however, the adoption on the ground in local Trusts then grinds to a halt on single track country lanes where we are relying on scarce implementation and change management skills and capacity.

The 10 Year Health Plan assumes that national investment and local delivery will operate in concert. The spend data suggests the reality is more complicated: national programmes set the direction, but local organisations absorb the cost, bear the implementation risk, and live with the consequences when central funding cycles end prematurely.

NHSE-awarded technology contracts



Source: Tussell NHSE technology-sector contract-award extract, deduplicated. Contracts-awarded data reflects point of award, not point of payment; not directly comparable to trust-level invoice spend.

The national contracts-awarded data and the local invoice-spend data are looking at different parts of the same system. Large central awards – Federated Data Platform, productivity programmes, EPR frameworks, data infrastructure – coexist with softer local invoice trends, particularly where national bodies are commissioning long-horizon programmes whose local financial effect lands unevenly over time. That said, the bulk of national expenditure still remains focused on the current estate and solving issues that patients would expect to be 'the basics' of technology – Trust to Trust and commissioner to commissioner visibility of patient records, more EPR and back office infrastructure. These all continue to dwarf expenditure on genuine innovation.

The Federated Data Platform: national infrastructure in deployment

The Federated Data Platform (FDP) is the most significant national data infrastructure programme currently in NHS deployment. FDP matters in the context of the two-speed market because it is the mechanism through which national investment is supposed to translate into local operational capability. Where deployment is mature, it is already demonstrating measurable improvements in discharge and elective recovery performance. Where it remains partial, the national investment sits dormant. The FDP deployment map is, in this sense, a leading indicator of each system's readiness to absorb the broader investment the centre is committed to making – and it is architecturally complementary to the Health Data Research Service (see Section 13): FDP generates the operational data flows that HDRS will make available for research and AI development at scale.

FDP adoption patterns reveal an important structural nuance. HSJ analysis from early 2026 found that eight of the nine NHS acute trusts running Epic EPR had not adopted the FDP – because a fully integrated modern EPR largely removes the fragmentation the FDP was designed to solve. Trusts with multiple legacy systems benefit most; trusts with a single integrated platform have less marginal need for the platform. This is not a reason to halt FDP deployment: it is a reason to be clear-eyed about where it adds value. National programmes work best when calibrated to local context, not imposed as a universal requirement regardless of the digital architecture already in place.

This points to a deeper structural challenge: suppliers to the NHS often find themselves operating in a two-speed market. Nationally, there is sustained and growing investment. Locally, the financial picture is constrained, the prioritisation is conservative, and the pathway from national contract to local adoption is neither straight nor predictable.

The Frontline Productivity Programme is the clearest current example of this dynamic. A roughly £2.5bn national programme with £500m to deploy in FY25/26, it sits at the intersection of central direction and local delivery: NHS England prioritises the spend categories (currently AVT and cyber security), but trusts must bid, receive regional sign-off, and then procure. The result, as trust digital leaders have described to us, is a system where the centre is directing investment into a specific kind of technology on a timeline that makes meaningful deployment within the financial year very unlikely. Understanding this programme – its priorities, its funding flow constraints, and the gap between its ambitions and its

mechanics – is essential context for any supplier or investor positioning for NHS technology spend in FY25/26.

Cyber security is the other named priority within Frontline Productivity, and it deserves more than a line. The NHS has experienced repeated, consequential cyber failures: a 2024 attack on South East London's pathology system caused patient deaths and revealed deep vulnerabilities in NHS security. Trust leaders report that contractors have yet to provide adequate assurance that their systems meet basic protection standards. For suppliers, this creates both a procurement opportunity and a compliance threshold: NHS organisations are under increasing pressure to verify the cyber posture of every supplier in their estate. Cyber resilience is no longer a niche IT concern – it is a patient safety issue, and investment in it should be treated accordingly.

So how do we resolve the two-speed dynamic? The information to answer this question already exists in parts. NHS England publishes annual Digital Maturity Assessment (DMA) results for every trust; the What Good Looks Like framework sets out seven success measures against which organisations are expected to self-assess; and the Healthcare Financial Management Association (HFMA) maintains a regularly updated digital technologies resources map for finance and operational leads. The system is not, in any meaningful sense, without guidance.

The problem is that none of it gets used consistently. There is a well-documented and persistent pattern of trusts ignoring centrally available resources and procuring locally – whether from unfamiliarity with what the centre has built, mistrust of national solutions, or the straightforward pressure of getting something working within a financial year. Coordination frameworks that are not actioned locally are not coordination frameworks; they are documentation.

What does not exist – and what would give this problem genuine accountability – is an annual, published register of NHS technology spend by category: what was bought, by whom, at what cost, and how it relates to centrally commissioned equivalents. The DMA measures maturity; the HFMA map catalogues resources; neither tracks whether money is being spent twice on the same capability. An annual spend transparency report, produced centrally and made publicly available, would not only close that information gap – it would create a structural incentive for procurement decisions to be made with full visibility of what already exists.

The NHS local technology spend report
Beyond the hype – What local spending patterns reveal about the NHS's digital future

The CapEx/OpEx pendulum – how its swings shape technology investment

One of the least-discussed but most consequential dynamics in NHS technology is the pendulum between capital and revenue expenditure. It explains much of the stop-start pattern visible in the left shift spend data, and it is something every NHS leader, supplier, and investor needs to understand before making strategic decisions.

How the pendulum works

At a national level, large NHS capital programmes – frontline digitisation, EPR rollout, productivity tech investment – create surges of capital-backed demand. When NHSE releases a major capital envelope tied to EPR deployment or digital transformation, it creates procurement activity at the local level. Trusts can draw on capital funding to procure systems that would otherwise sit in revenue budgets – often with more generous approval processes and higher spending limits.

But when a national capital programme winds down, completes, or is subject to in-year capital reductions (a routine occurrence in NHS financial management), the demand evaporates at local level almost immediately. Suppliers that sized their sales and delivery operations around capital-driven procurement waves find themselves exposed. The pipeline dries up. Revenue replacement is slow. And because capital programmes tend to favour large-ticket platform vendors over point solutions, the pain falls disproportionately on innovation-led suppliers that built commercial models around the same capital wave.

The knock-on implication of this 'fire drill' approach to spending is that many Trusts also lack the funding and budgetary freedom to employ the right number and quality of people to run and deliver programmes for local adoption and supplier engagement – leaving innovators battling for airtime with an overstretched CFO.

The NHS's 2025 Spending Review announced £10bn for technology over three years – but the Health Foundation confirmed that the DHSC capital budget is flat in real terms between 2025/26 and 2029/30. The headline number masks the structural reality. Suppliers must read both.

The classification problem

A related challenge sits in the capital/revenue classification of cloud and SaaS technology. These services are in principle revenue expenditure – they are consumed rather than owned. But NHS trusts with constrained revenue budgets will sometimes seek to classify them as capital projects to access CDEL (Capital DEL) funding. Conversely, trusts with capital windfalls from national programmes may struggle to convert that capital into revenue-line technology subscriptions, creating a mismatch between funding type and product architecture.

The G-Cloud and Digital Marketplace frameworks exist partly to address this – allowing public sector bodies to procure cloud services as revenue spend without full Official Journal of the European Union (OJEU)-equivalent tendering. But their use in NHS technology is uneven, and the underlying capital/revenue tension remains a structural barrier for SaaS-model innovators trying to sell into a system accustomed to on-premise, capital-funded deployments.

Implications for suppliers

Suppliers that do not understand the capital/revenue structure of NHS budgets will consistently misprice their opportunity, misdirect their sales motion, and misread market signals. Specific implications:

- Capital waves create short-term revenue opportunities but are structurally ephemeral. Build revenue-model resilience before the wave recedes.
- Understand the capital envelope position of each target trust before scoping a deal. A trust in a capital-constrained year is a fundamentally different prospect to one with an active CDEL allocation.
- Design products that can be purchased under either capital or revenue frameworks – ideally via G-Cloud or Health Systems Support Framework (HSSF) to reduce procurement friction.
- Build business cases for CFOs that explicitly address the budget classification question. Ambiguity on CapEx/OpEx classification can block a procurement that the clinical team fully supports.
- Monitor the national capital programme cycle. When NHSE signals a major capital allocation, start building pipeline immediately – the procurement window is often shorter than it appears.

The NHS local technology spend report
Beyond the hype – What local spending patterns reveal about the NHS's digital future

The international lens – how does NHS tech spend compare globally?

As well as the domestic assessment of where local NHS technology spend is going, it is also worth establishing where the NHS sits relative to its international peers. The answer is uncomfortable: on almost every relevant metric, the UK is a mid-table spender on healthcare overall, but well below its peers on health technology specifically.

The health technology gap

Total NHS trust IT spend reached £4.1bn in 2024/25 – an increase of 9% year-on-year. That figure, reported by Future Health Intelligence in January 2026, reveals a sector growing in cash terms but shrinking in strategic ambition when benchmarked against peer systems:

Country	Health IT spend (% of budget)	Key driver
United States	4–6%	HITECH Act mandates; private insurance competition
Australia	~3.5%	My Health Record programme; federal mandate
Germany	~3.5%	Hospital Future Act (KHZG) – mandatory EPR investment
Netherlands	~3.0%	Integrated care model; strong interoperability investment
Canada	~2.5%	Canada Health Infoway; provincial variation
United Kingdom	**~2.3%**	**Trust-level average; variation 1.5%–6% across systems**

Sources: FHI Trust IT Spend Analysis (Jan 2026); OECD Health at a Glance 2025; European Hospital and Healthcare Federation (HOPE) Digital Health Reports; Deloitte Global Health Care Sector Outlook 2024. International figures are approximate and reflect broad industry estimates given definitional inconsistencies across systems.

If the NHS matched Australia or Germany at ~3.5% of health budgets, total annual NHS IT investment would increase to approximately £7bn+ – roughly £3bn more than the current visible level. The 2025 Spending Review's £10bn commitment over three years represents a clear step in this direction, but we are not yet seeing the delivery on the ground. NHS history, as the Health Foundation has noted, "is littered with promises to spend more on capital and technology, budgets which have then been raided to pay for short-term pressures."

The question is not whether more tech investment is needed – it is whether the NHS has the leadership, conviction and a sufficiently long-term view to convert investment into sustained adoption.

Germany's Hospital Future Act: a lesson in mandated investment

Germany provides a compelling peer comparison. Its Hospital Future Act (Krankenhauszukunftsgesetz, KHZG), enacted in 2020 and funded with €4.3bn, created a mandatory investment framework for hospital digitisation. Hospitals were required to achieve specific digital maturity thresholds – patient portals, digital medication management, clinical decision support – or face reimbursement penalties. The result: digitisation of German hospitals accelerated sharply, with EPR coverage and interoperability improving measurably across the system.

No equivalent mandate exists in England. Frontline Digitisation and the EPR programmes have driven real progress – NHS England reported that 95% of trusts were expected to have implemented or upgraded an EPR by March 2026 (despite the recent postponement of many of these EPR deployments) – but the procurement culture remains discretionary and locally accountable. The contrast matters: Germany created market certainty for suppliers and measurable outcomes for patients. England has created ambition without equivalent accountability.

The mandation debate: where England stands now

While the shadow of the failed National Programme for IT (NPfIT) in the early 2000s still looms large, the question of mandation is live in current NHS policy discussions in a way it has not been since the early 2000s. The 2025 Spending Review's £10bn technology commitment has renewed the debate: if the centre is committing this level of investment, should it also require measurable adoption outcomes rather than leaving deployment to local discretion?

The arguments for stronger mandation are clear. Local discretion has produced the 5:1 variation in virtual ward deployment visible in this report's data. It has produced the pattern of national programmes adopted enthusiastically in some ICBs and ignored in others. It has allowed EPR investments to sit underutilised because post-deployment change management is not mandated. The Germany model shows that mandation, when tied to measurable outcomes and financial consequences, accelerates adoption and creates market certainty for suppliers.

We recognise that mandation of procurement decisions without implementation support produces compliance rather than adoption and clinical improvement. Trusts procure the required system and continue in old workflows. The emerging consensus within NHS England – reflected in the direction of travel for 2025/26 – is towards conditional mandation: specific, measurable digital capability thresholds tied to system oversight ratings and, ultimately, to capital allocation. This is closer to the German model than England has previously been willing to go. Whether it survives contact with local NHS politics remains to be seen.

The NHS local technology spend report
Beyond the hype – What local spending patterns reveal about the NHS's digital future

UK suppliers – who is actually getting the money?

The NHS is one of the most important health technology markets in the world. It is large, sticky, well regarded internationally, and backed by growing central investment. The question is: who benefits? The answer should concern anyone interested in UK industrial strategy.

The EPR market: dominated by non-UK players

The EPR and core-estate market – the largest single category at 63.9% of visible spend – is dominated by US-headquartered companies. Epic Systems (Wisconsin), Oracle Health (acquired Cerner, headquartered in Austin), and Dedalus (French-Italian, private equity–backed) collectively account for the majority of observed EPR supplier spend. System C (headquartered in the UK, owned by Vitality since 2021), Servelec (now Civica, UK-based), and TPP (UK-based, GP-market leader) represent the primary British presence in a market otherwise shaped by international capital.

At the time of writing, the market structure of NHS primary care IT has shifted materially: US private equity firm TPG completed its acquisition of EMIS (via Optum UK), giving a single American PE fund control of the IT systems used by more than half of England's GP surgeries. When combined with the UK's TPP SystmOne – which holds most of the remainder – this acquisition means England's entire primary care IT infrastructure now rests in the hands of two players, one of them backed by US private equity. Rumours of a potential TPP sale add further concentration risk. This is not a market that competition policy has kept pace with.

This concentration risk has recently deepened further. The French digital health company Doctolib – one of Europe's largest health technology platforms – completed its acquisition of Medicus Health, whose GP IT system had just become the first new NHS-approved primary care platform in over twenty-five years, receiving NHS England validation in 2025. British primary care IT is now substantially owned or controlled by non-UK entities.

Supplier	Headquarters	Primary NHS category	Indicative NHS position
Epic Systems	USA (Wisconsin)	EPR – acute hospitals	Market leader by observed spend
Oracle Health (Cerner)	USA (Austin, TX)	EPR – acute, community	Largest by legacy deployed base
Dedalus	France/Italy (PE-backed)	EPR – community, mental health	Significant UK footprint
System C (Vitality)	UK (Maidstone)	EPR – community, mental health	Largest UK-HQ'd EPR player
TPP (The Phoenix Partnership)	UK (Leeds)	GP systems (SystmOne)	Dominant in primary care
EMIS Health	UK (Leeds)	GP / community systems	Co-dominant with TPP in GP market
Civica	UK (London)	Clinical / administrative systems	Broad NHS footprint
Alcidion	UK/Australia	Clinical decision support	Growing NHS presence

Based on AdviseInc supplier spend data and publicly available information. "Indicative NHS position" reflects order-of-magnitude interpretation only.

The picture in the left shift and innovation categories is more balanced – this is where UK companies are most active. But these categories represent only 9.6% of visible spend, and the companies within them have yet to reach the scale of the EPR incumbents.

The case for backing British

The UK's health tech ecosystem is one of the strongest in the world. In 2023, 41% of all European healthtech venture capital investment flowed into UK companies. The country houses a pipeline of globally competitive innovators – for example Isomorphic Labs in AI drug discovery, Brainomix in stroke imaging AI, Patients Know Best in patient records, Eolas Medical (used by 80% of NHS trusts), and Current Health in remote monitoring. These companies have earned NHS validation and are scaling internationally.

Yet the NHS is not proportionately backing them. A system that spends the majority of its technology budget on large US-headquartered platforms while its own homegrown innovators struggle to reach repeatable commissioning is not aligned with a serious industrial strategy. The government's Life Sciences Sector Plan and the Modern Industrial Strategy both identify health and life sciences as a priority growth sector, but the rhetoric and the reality remain fundamentally misaligned. In conversations with industry leaders and NHS executives, the same pattern recurs – life sciences is cited as a national strategic priority at every public forum, yet the commissioning decisions and procurement budgets that would substantiate that commitment are not visible in the spend.

The NHS's best brand value is not its scale – it is its endorsement. A supplier that can show NHS adoption at scale can sell globally. That endorsement is currently flowing disproportionately to international incumbents, not to British innovators.

What this means for system leaders

- The NHS is systematically exporting digital sovereignty. More than 60 pence in every technology pound flows to US- or foreign private equity-backed suppliers. This is not inherently wrong – but it should be a conscious choice, not an accidental outcome of unconsidered procurement.
- UK healthtech companies need NHS reference sites to sell internationally. Prioritising UK-validated suppliers in framework selection and 'presumption in favour' procurement guidance is both an industrial policy lever and a strategic interest.
- The EMIS/TPG acquisition (May 2026) means US private equity now controls primary care IT infrastructure for more than half of England's GP surgeries. System leaders and NHSE should formally assess the resilience and sovereignty implications of this concentration.

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Does technology spend correlate with health outcomes?

The logical next question after establishing where money is being spent is whether that investment is delivering better health outcomes. This is the most important – and most contested – question in health technology.

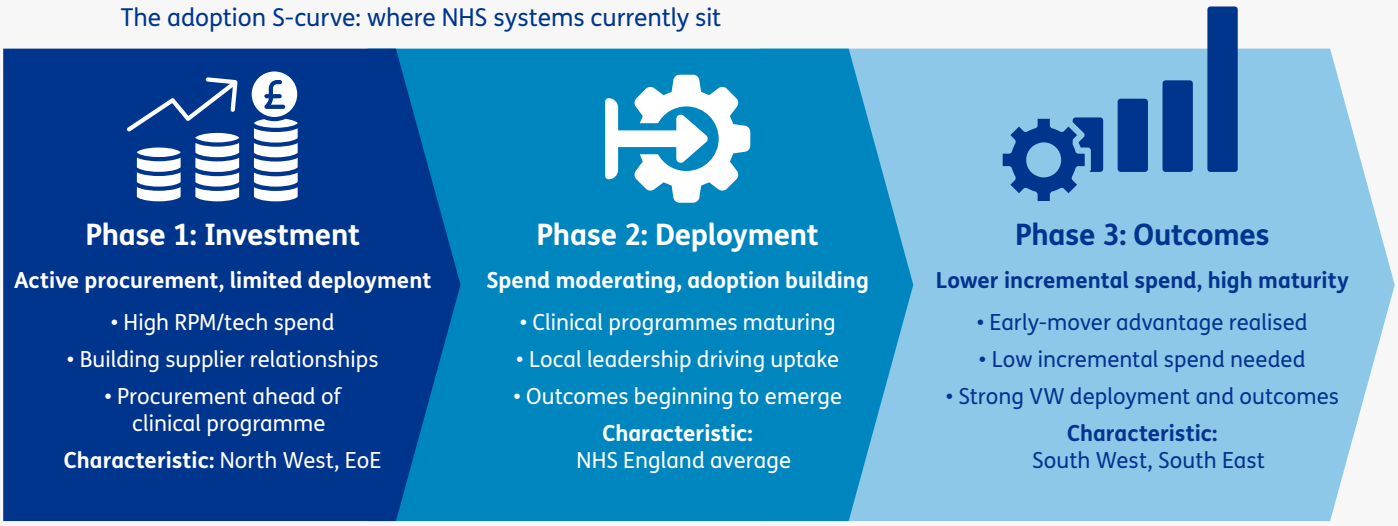
The relationship between technology investment and outcomes is not linear. But the evidence base for technology-driven outcome improvement is growing – from AI-assisted diagnostic tools that detect cancers earlier, to remote monitoring programmes (RPM) that reduce hospital admissions, to population health analytics that direct preventive care to those who most need it.

To test whether NHS technology investment is translating into measurable health outcomes, we compared regional left shift and remote patient monitoring spend from the AdviseInc dataset against two NHS England measures: Referral to Treatment waiting time performance and Virtual Ward capacity per 100,000 GP-registered population. Virtual Ward capacity – the measure of hospital-at-home bed equivalents deployed per region – is the most direct operational proxy for remote patient monitoring technology deployment currently published by NHS England at sub-national level. The results reinforced that the path from technology spend to clinical improvements takes time, typically 3–5 years, and we have summarised this journey below:

"The best healthcare systems aren't just treating illness — they're preventing it. Frimley has made a deliberate strategic choice to invest in the technologies that keep people well and out of hospital. This report shows that choice is working, and I hope it encourages others to be bold."

Lance McCarthy, CEO, Frimley Health NHS Foundation Trust

The adoption S-curve: where NHS systems currently sit



Source: Indicative positioning based on Spearman rank analysis of RPM spend vs. Virtual Ward deployment across NHS England regions.

"It's vital for us to see how much progress and commitment there is to digital transformation at a local level, rather than constantly focusing on national programmes as this is where left shift needs to be delivered."

Bill Shields, Chief Finance Officer, Derby and Derbyshire, Lincolnshire and Nottingham and Nottinghamshire ICB Cluster

Region	Remote Patient Monitoring Spend FY24/25	Virtual Ward Capacity/100k (FY25/26 avg)	Position on adoption curve
South West	£390k	24.2	Early adopter – deployed pre-2023
South East	£803k	23.3	Early adopter – deployed pre-2023
North West	£2,169k	21.3	Active investment – building now
London	£1,001k	19.9	Active investment – building now
Midlands	£486k	18.0	Active investment – building now
East of England	£618k	18.0	Active investment – building now
North East & Yorkshire	£502k	15.3	Early-stage – lowest deployment

ICB Transformation Index: top and bottom performers

Aggregating left shift investment intensity from the AdviseInc dataset against Virtual Ward capacity per 100,000 population – the most directly available deployment outcome measure – produces a composite transformation index across 28 ICBs where both data sources are available. The index combines two equally-weighted, z-score normalised components: left shift spend as a percentage of total observed technology spend, and Virtual Ward capacity per 100,000 GP-registered population. Left shift % is defined as the share of observed AdviseInc spend attributed to left shift supplier categories – a directional indicator rather than a precise accounting measure, subject to supplier coding inconsistencies and the classification of multi-category providers. This index measures the degree to which systems are aligning technology spend with the demand-reduction agenda and translating it into operational deployment. The top and bottom ten performers are shown below.

Top 10 performers

1. Frimley

Region	Left shift	VW/100k avg
South East	53.7%	26.3

2. Hertfordshire & West Essex

Region	Left shift	VW/100k avg
East of England	13.6%	28.3

3. Dorset

Region	Left shift	VW/100k avg
South West	23.3%	26.9

4. Gloucestershire

Region	Left shift	VW/100k avg
South West	11.3%	28.1

5. Somerset

Region	Left shift	VW/100k avg
South West	8.8%	28.3

6. Northamptonshire

Region	Left shift	VW/100k avg
Midlands	7.3%	40.8

7. South Yorkshire

Region	Left shift	VW/100k avg
NE & Yorkshire	34.3%	17.3

8. Devon

Region	Left shift	VW/100k avg
South West	12.3%	26.3

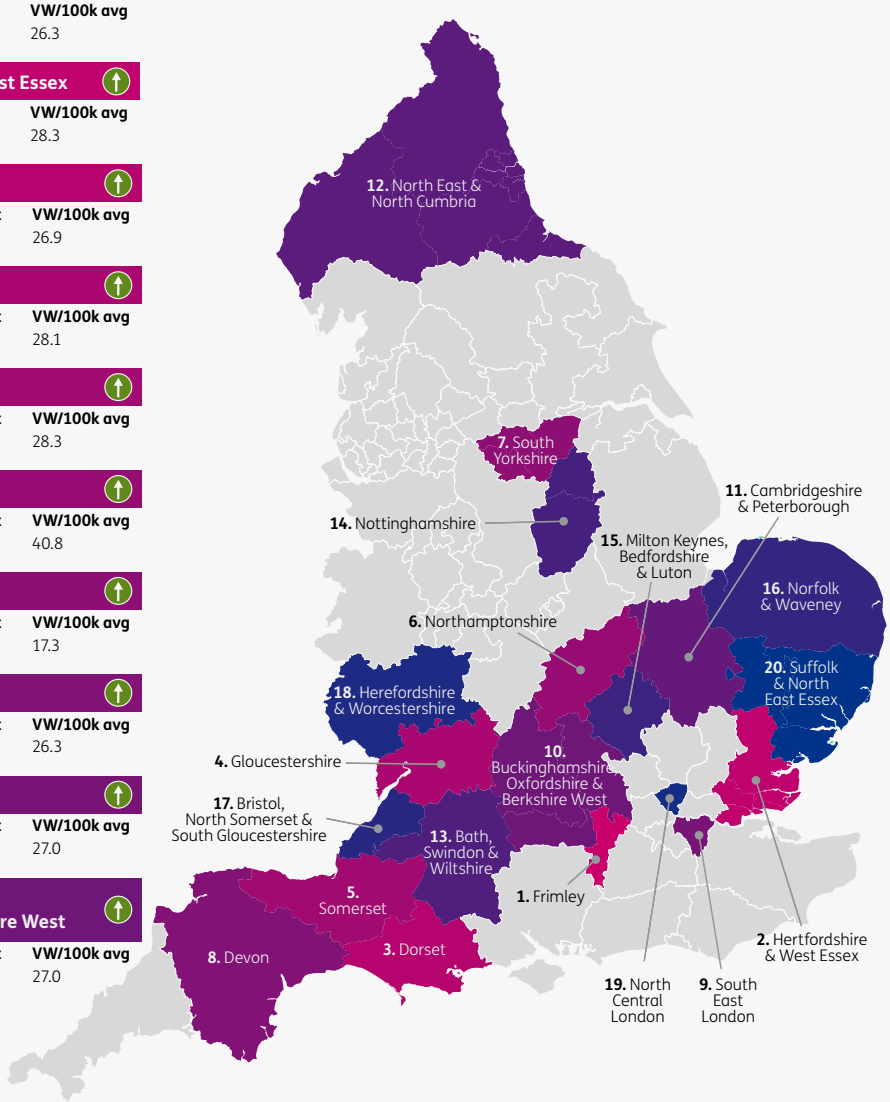
9. South East London

Region	Left shift	VW/100k avg
London	7.6%	27.0

10. Buckinghamshire, Oxfordshire & Berkshire West

Region	Left shift	VW/100k avg
South East	5.7%	27.0

ICB Transformation Index: top and bottom performers



Bottom 10 performers

11. Cambridgeshire & Peterborough

Region	Left shift	VW/100k avg
East of England	6.2%	16.1

12. North East & North Cumbria

Region	Left shift	VW/100k avg
NE & Yorkshire	8.1%	15.0

13. Bath, Swindon & Wiltshire

Region	Left shift	VW/100k avg
South West	3.5%	17.5

14. Nottinghamshire

Region	Left shift	VW/100k avg
Midlands	3.7%	16.1

15. Milton Keynes, Bedfordshire & Luton

Region	Left shift	VW/100k avg
East of England	0.2%	21.1

16. Norfolk & Waveney

Region	Left shift	VW/100k avg
East of England	1.8%	17.3

17. Bristol, North Somerset & South Gloucestershire

Region	Left shift	VW/100k avg
South West	4.0%	15.1

18. Herefordshire & Worcestershire

Region	Left shift	VW/100k avg
South East	4.2%	13.5

19. North Central London

Region	Left shift	VW/100k avg
South East	3.5%	13.8

20. Suffolk & North East Essex

Region	Left shift	VW/100k avg
South East	2.1%	14.7

Three of the bottom ten ICBs are in the East of England, reinforcing the regional picture described elsewhere in this report. The presence of Herefordshire & Worcestershire – which records the lowest virtual ward deployment rate of any ICB in the bottom ten, at 13.5 beds per 100,000 – is particularly striking. It is precisely the profile where left shift technology should deliver the greatest returns: a predominantly rural system with significant travel distances to acute centres, high older-population demand, and structural pressure to keep patients out of hospital. The case for remote monitoring, community-based diagnostics, and virtual care in Herefordshire & Worcestershire is self-evident. The investment pattern does not yet reflect it. Somerset and Northamptonshire in the top ten show that small systems with focused programmes can outperform larger, higher-spending peers on the metrics that matter most.

Why spend data and outcome data don't correlate in the short term: the investment-to-outcome lag

The HITECH Act, which drove digital adoption across US hospitals from 2009, generated its clearest measurable outcome improvements only in the 2013–2017 period – a 3–5 year lag from capital commitment to clinical impact. A 2021 analysis in Health Affairs found that HITECH-eligible hospitals showed significantly lower 30-day readmission rates and improved process-of-care measures, but only where EHR adoption had been sustained for at least four years. The NHS's own Global Digital Exemplar programme tells the same story: sites designated in 2016 showed materially different outcome trajectories by 2020–21, but not before. Both programmes confirm the same structural reality: technology investment and measurable outcome improvement are separated by a multi-year implementation, workflow-change, and data-maturity cycle.

This lag is compounded by the CapEx/OpEx pendulum described in Section 8. Technology purchased under capital frameworks often sits in procurement or implementation for 18–36 months before clinical workflows change materially; and when capital dries up mid-cycle, programmes stall and the investment clock partially resets.

The relevant outcome window for the left shift purchasing wave visible in the current data opens around 2027–28.

RECOMMENDATION: NHS England and DHSC should establish a five-year, revenue-based digital transformation settlement – ring-fenced from annual capital variance – covering the period 2025–2030. A minimum of 2.5% of the NHS operating budget (£4.5bn at current budget levels) should be directed to health technology, with at least 30% of that total allocated to left shift categories. Programmes funded under this settlement should be subject to mandatory outcome reporting against the metrics described in this section, with the first published results expected in 2028.

Leading indicators during the benefits lag

If the case for ring-fenced multi-year funding rests on accepting a 3–5 year benefits lag, it demands a stronger framework for tracking progress before those outcomes materialise. The current evidence base relies heavily on lagging indicators – admissions, length of stay, RTT performance, virtual ward capacity – which are the right measures of ultimate impact but the wrong measures of in-year progress.

During the settlement period, commissioners and system leaders should track a parallel set of leading indicators: FDP and EPR adoption rates, eligible patient cohort reached by programme, pathway coverage, clinician utilisation rates, digital inclusion metrics, and early escalation-avoidance signals. These do not prove that outcomes will arrive on schedule, but they demonstrate that investment is being absorbed and programmes are maturing.

The risk of relying exclusively on lagging indicators in annual budget reviews is that technology programmes are stopped or redirected before benefits have had time to mature – planting the tree and digging up the roots before they have taken hold. In-year accountability should focus on implementation milestones and leading indicators, not on expecting mature outcome benefits before the inflection point has been reached.

FDP adoption as an independent signal

Cross-referencing the AdviseInc spend data with publicly available NHS England data on Federated Data Platform (FDP) deployment provides an independent check on the regional patterns described above. The regional data are set out in the table below. Adoption estimates are based on FDP-live trust counts as a share of estimated regional acute trust totals.

Region	Number of trusts live with FDP	Estimated adoption	Percentage of spend on left shift enablers
NE & Yorkshire	21	70%	11.0%
North West	19	54%	14.7%
Midlands	18	47%	9.3%
South East	16	55%	12.2%
London	14	41%	6.1%
East of England	13	54%	5.1%
South West	9	47%	7.8%

The Spearman rank correlation between FDP adoption and regional spend is shown below:

Correlation	ρ	p-value
FDP live trust count vs left shift spend %	+0.714	0.071

The one region where investment and outcome indicators consistently align in the expected direction is the East of England – but negatively. It records the lowest left shift investment share in the country (5.1% of observed spend), the worst Referral to Treatment performance (57.2% of patients seen within 18 weeks across FY25/26), the longest median waiting time (14.9 weeks), and the second-lowest Virtual Ward deployment rate in England. The causal pathway is not cleanly established: East of England has a dispersed population geography, significant primary care capacity constraints, and a legacy infrastructure profile that is independently associated with worse outcomes. But the consistency of the signal across every metric tested – spend, waiting times, and virtual ward adoption all pointing in the same direction – warrants attention from system leadership and regional commissioners.

The investment thesis for left shift technology in the NHS remains intact. The GDE evaluation and the HITECH evidence base are consistent: technology-driven outcome improvement is real, repeatable, and achievable within a defined timeframe – but it requires sustained commitment over 3–5 years, not the episodic capital cycles that have characterised NHS technology investment to date. For the regions now investing heavily in remote patient monitoring, population health analytics, and virtual care infrastructure, the question is not whether returns will materialise. It is whether programme leadership, implementation capacity, and capital continuity can be maintained long enough to reach the inflection point. The analysis in this report suggests that in some regions, the clock started ticking in 2022.

The cost of inaction: a modelled estimate

The evidence base from GDE-designated trusts and the NHS England Virtual Ward programme allows a conservative modelling of what universal adoption of GDE-level digital maturity would deliver nationally. Three effects are quantifiable from published evaluations:

1. Emergency admission reduction. GDE evaluation found approximately 1.6% lower emergency admission rates at designated sites compared with matched comparators. Applied nationally to 6.3m emergency admissions at £1,800 per admission: £181m in avoided acute costs per year.

2. Length of stay reduction. GDE sites demonstrated approximately 0.4 days shorter average length of stay. Applied to 6.3m emergency admissions: 2.5m fewer acute bed days annually at £450 per bed day – £1.1bn per year.

3. Virtual ward capacity gap. Closing the gap from the current national average of 19.8 beds per 100,000 to the NHS England target of 40 per 100,000 would generate approximately 12,900 additional virtual ward beds. At 75% occupancy, each replacing 5.5 acute bed days: £1.6bn in avoided acute costs annually once at scale.

4. Productivity and capacity release. The 12,900 additional virtual ward beds also release an equivalent number of acute beds for elective use. At typical NHS acute bed utilisation (approximately 15 elective admissions per bed per year), this equates to around 194,000 additional elective admissions annually – reducing the waiting list without additional workforce or estate. The capacity case is distinct from the cost-avoidance case: virtual wards do not merely save money, they return headroom to the system to treat more patients, reduce waits, and improve flow.

Conservative combined estimate: £1.5bn–£2.9bn per year in avoided acute costs at full implementation. Over a five-year settlement period: £8bn–15bn. The additional investment required to reach the German benchmark over the same period: £8bn–17bn. On the most conservative assumptions, the NHS breaks even on its digital investment within the same settlement window.

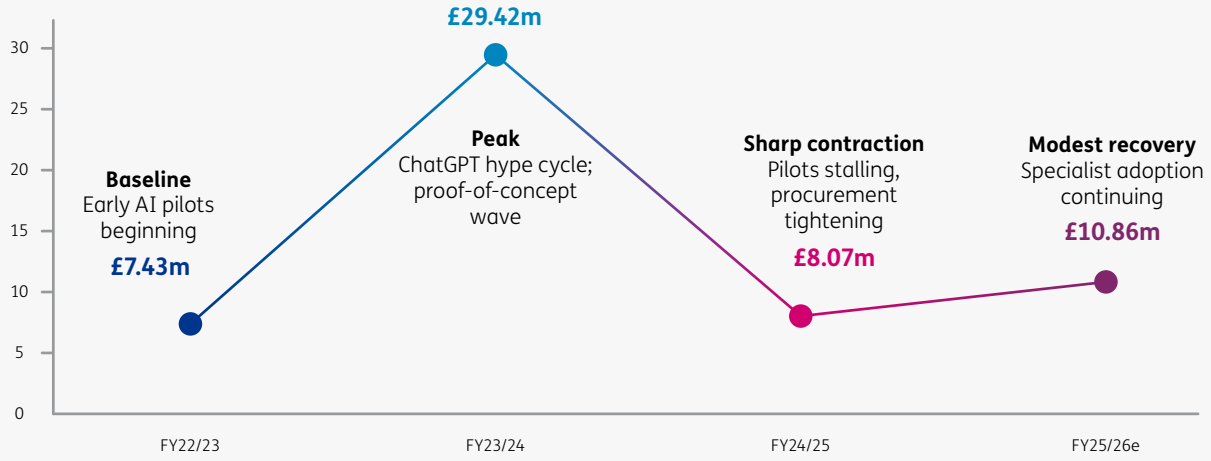
The NHS local technology spend report
Beyond the hype – What local spending patterns reveal about the NHS's digital future

True AI – hype or reality?

No topic attracts more conference coverage, ministerial interest, and investor attention in NHS technology than artificial intelligence. The NHS's AI Lab, the NICE (National Institute for Health and Care Excellence) Evidence Standards Framework for Digital Health Technologies, the £200m AI in Health and Care Award – all have been presented as signs of a system mobilising seriously around AI adoption.

AI investment isn't just one thing, and it should be viewed as a priority beyond just using it for improving basic productivity. It should also be viewed as a truly transformative means to transform diagnosis, manage care, and elevate service and outcomes. Against this definition, the local spend data reveals a significant readiness gap – but also a genuine opportunity for NHS organisations that move decisively. The question is not whether AI will reshape the NHS technology landscape, but whether trusts build the strategic, governance, and skills foundations to benefit from it on their own terms.

Estimated national AI-first spend (extrapolated)



At just under £11m in the last year spent on AI-first solutions – less than the annual IT budget of a single large teaching hospital – this is not an AI adoption wave. It is a procurement ripple.

The FY23/24 spike is instructive: it is consistent with a wave of pilots, proof-of-concepts, and selective specialist adoption in radiology, pathology and clinical decision support. The subsequent contraction reflects a familiar pattern – pilots that failed to convert to repeatable commissioning, budget pressure forcing prioritisation of core systems, and a procurement infrastructure ill-suited to fast-moving AI product cycles.

What counts as "true AI"?

We recognise that defining AI expenditure is a challenge. Many EPR and core-platform vendors have added AI features – predictive analytics, natural language processing – as embedded capabilities. That spend is not captured in the AI-first category because the primary purpose of the product is a database of patients and their condition – ultimately with minimal incremental impact upon it. The visible AI-first number is therefore a conservative estimate of genuine AI commissioning, but it is also the most meaningful one: it captures where NHS organisations are actively choosing to procure AI as a strategic priority rather than accepting it as a feature update.

The most significant areas of genuine AI procurement are diagnostic imaging (AI-assisted radiology and pathology), clinical coding automation, ambient voice documentation tools, and early adopters of AI-assisted triage. These remain concentrated in a small number of early-adopter trusts – the "flypapers" described in Section 6 – and have not yet diffused into broad-based adoption.

AI replacing SaaS: a structural disruption the NHS cannot ignore

The debate in financial markets about AI displacing SaaS has been loud and, in our view, somewhat overstated in scale and timeline. But the direction of travel is not in doubt, and on the ground the shift is already visible. We are seeing NHS organisations replace licensed business intelligence tools – Power BI and equivalents – by connecting large language models directly to data warehouses, producing richer analysis at a fraction of the cost. This is not a theoretical future state. It is happening now in early-adopter trusts.

If implemented with the right skills and governance, AI has the potential to significantly disrupt the local NHS technology landscape – shifting procurement away from recurring SaaS licences towards bespoke, low-cost, low/no-code in-house builds. The categories most exposed are analytics, reporting, basic workflow automation and administrative tooling: precisely the categories where NHS spend has been most predictable and supplier revenue most recurring. For suppliers in these segments, this is not a tactical challenge – it is an existential signal.

The critical caveat is capability. The NHS is already significantly underinvesting in the digital and data skills required to realise this transition safely. A trust that replaces a SaaS licence with an in-house AI build, but lacks the clinical informaticians, data engineers or governance capacity to manage and iterate it, has not saved money – it has accumulated technical debt and clinical risk. The SaaS-to-AI transition only delivers value where the skills investment precedes or accompanies it. Building that capability is currently one of the most significant areas of underspend in the NHS technology portfolio – and one that rarely appears in capital bids or board-level investment cases.

The GenAI capability gap: a decision the NHS cannot defer

The spend data confirms what many NHS CDIOs report privately: very few NHS organisations have made a genuine investment to navigate generative AI. The majority are either relying on a scaled-down version of Microsoft Copilot distributed through the national M365 tenant – which is limited in capability and constrained in the data it can access – or have no active generative AI deployment at all. This is not a pipeline of sophisticated use cases waiting for procurement approval. In most trusts, it is an absence.

This gap is understandable. Generative AI is moving faster than NHS procurement cycles, the regulatory framework is unsettled, and the consequences of deploying inadequately governed AI in a clinical environment are real. But deferring investment does not reduce risk – it changes its character. Organisations that are not actively building the in-house capability to assess, govern and deploy AI tools are accumulating a different and arguably greater exposure: the risk of being operationally and structurally disadvantaged as AI reshapes clinical operations, workforce requirements and supplier relationships faster than a standing-start procurement can respond.

The disruption potential is not marginal. When applied correctly, generative AI can automate significant swathes of administrative, analytical and operational work – freeing clinical capacity, reducing corporate overhead, and compressing the unit cost of digital change itself. That makes it harder, not easier, for trust leaders to decide where to invest: the landscape is uncertain, vendor claims are inflated, and the opportunity cost of inaction is difficult to quantify with precision. But the scale of potential disruption to operating models, workforce structures and the existing SaaS supplier base is sufficient that treating generative AI as a watching brief is no longer defensible. NHS boards need a GenAI strategy – with a clear mandate, governance framework, change management and skills investment plan behind it.

The pattern of NHS organisations investing heavily in AI exploration without reaching sustained operational delivery is not new. Baringa has written about the wider phenomenon of public sector digital programmes stuck in perpetual discovery – a challenge we have called Disco Fever – in which the excitement of the discovery phase becomes self-perpetuating, and delivery never follows. The same diagnostic applies to AI adoption in the NHS: the solutions are clear goals, multi-functional delivery teams, and well-managed risk – not more pilots. See: Baringa, Overcoming Disco Fever, April 2025 (baringa.com/en/insights/public-sector-digital-ai/overcoming-disco-fever/).

The ambient AI moment

The area most likely to change this picture in the near term is ambient voice technology (AVT) – AI tools that listen to clinical conversations and automatically generate clinical notes, care plans and coding. The NHS's 2025 Medium-Term Planning Framework explicitly named ambient voice technology as a requirement for all NHS providers. If national mandate translates to commissioning reality, this could be the first AI category to break out of pilot status into genuine scale. Suppliers including Nuance DAX, Nabla, and Suki are well-positioned if the procurement infrastructure can keep pace.

The scale of NHS England's commitment to AVT is now confirmed. The Frontline Productivity Programme – a roughly £2.5bn national programme where the centre signs off bids, with an estimated £500m budget in FY25/26 – is understood to be prioritising AVT and cyber security above other technology categories. In some regions, the split is reported to be 80:20 in favour of AVT investment.

The operational reality, however, is more complicated. AVT is typically paid for on an annual licence-per-clinician basis, which sits awkwardly with capital-style programme funding. More critically, Frontline Productivity money is not expected to reach trusts until Q3 FY25/26 – at which point procurement still needs to begin. Trust digital leaders are blunt about the consequence: deployment at meaningful scale within the financial year is unlikely. The gap between ministerial ambition and operational delivery is a precise illustration of the two-speed market this report describes.

Ambient voice technology: ministerial priority, but contested ground

There are many sceptics though. Ultimately, voice documentation is a productivity tool not a transformation tool: it automates note-taking, but it does not change clinical pathways, reduce demand, or generate the structured data that AI models need to improve. Investing at scale in AVT risks displacing further investment from the true AI applications – diagnostic support, population-level preventative health interventions – that could deliver genuine left shift. The risk is that the NHS ends up with a very expensive dictation system.

Regulatory headwinds are already visible. Medical device regulation for AI-assisted clinical documentation is an active area of MHRA (Medicines and Healthcare products Regulatory Agency) attention, and the question of liability when AI-generated clinical notes contain errors is unresolved. Several NHS trusts piloting AVT tools have encountered information governance and clinical risk committee challenges that have slowed deployment significantly. These are solvable problems – but they are not yet solved, and the gap between ministerial timeline and procurement reality is likely to be wider than the current narrative suggests.

In summary, the picture for AI in the NHS is very mixed, with a lot of attention focused on the 'easier' wins of productivity improvements using AI for back office tools, but the level of spend and adoption in genuine patient-facing AI tools is still very limited.

The NHS local technology spend report
Beyond the hype – What local spending patterns reveal about the NHS's digital future

The HDRS – the infrastructure that could unlock future investment

On 7 April 2025, Prime Minister Sir Keir Starmer announced one of the most significant structural investments in NHS data infrastructure in the service's history: the Health Data Research Service (HDRS), backed by up to £600m from the government and the Wellcome Trust.

In November 2025, Baroness Nicola Blackwood was appointed Chair. In January 2026, Dr Melanie Ivarsson – who led the clinical trials that produced one of the world's first COVID-19 vaccines at Moderna – was appointed as inaugural CEO.

"By breaking down barriers to data access, we can unlock the extraordinary potential of NHS data to accelerate medical breakthroughs that will improve lives across all four nations."

Baroness Nicola Blackwood, Chair, HDRS (November 2025)

The HDRS is designed to solve a problem that has hampered NHS data research for decades: the fragmentation of health data across thousands of different systems, access regimes, and approval processes. Currently, a researcher wanting to link primary care records, hospital episode statistics, prescribing data, and mortality data might spend months navigating different access processes across different organisations. HDRS will provide a single secure gateway – a "single front door" – through which approved researchers can access linked data in a standardised, timely, and research-ready form.

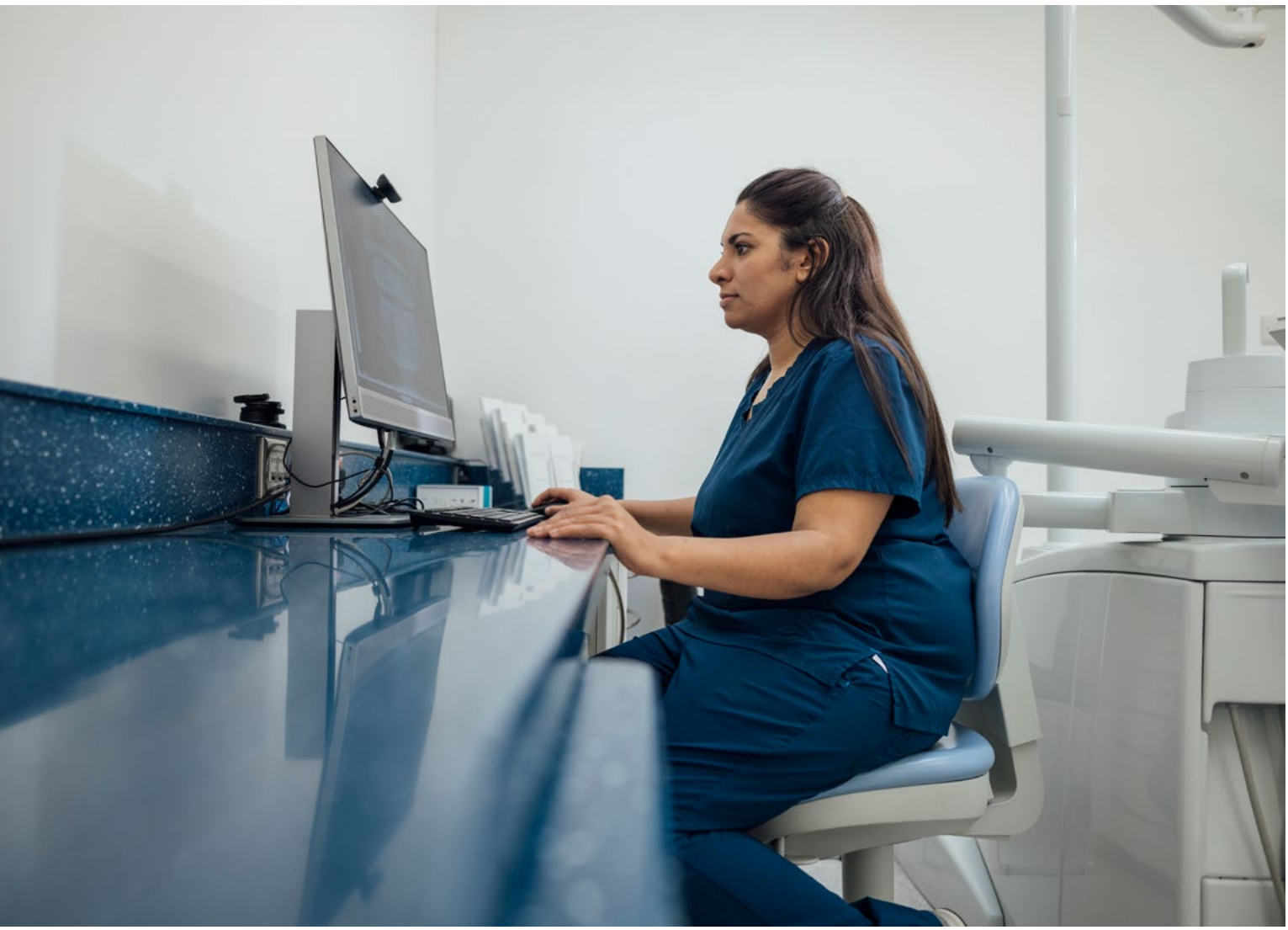
The HDRS will launch its first projects by the end of 2026, with core capabilities rolling out progressively. Scotland, Wales, and Northern Ireland have agreed in principle to UK-wide participation, making this a genuinely four-nations data asset. The service builds on the Data for research programme and the NHS Research Secure Data Environment (SDE) Network, which is already converging more than 7,000 existing access points – crucial foundational work.

If the HDRS succeeds, the UK will have the world's most valuable health data infrastructure for research. If it fails – through governance complexity, underfunding, or political disruption – the one-in-a-generation investment thesis for UK health AI collapses with it.

The transparency connection

The analysis in this report – and the findings about where NHS technology spend is and is not going – points directly to the need for infrastructure like HDRS. The gap between AI ambition and AI commissioning reality is not primarily a technology gap. It is a data access gap, a trust gap, and a capability gap. HDRS addresses all three: it provides the data that AI needs to learn, the governance that creates public trust, the evidence infrastructure that allows innovators to show real-world outcomes at scale, and a commercially sophisticated counterparty for industry to work with.

For NHS organisations evaluating technology, HDRS should increasingly form part of their technology due-diligence framework: does this supplier's product generate data that can be shared through HDRS mechanisms? Does their AI model rely on training data whose provenance can be validated? Are they operating within MHRA frameworks compatible with HDRS-sourced evidence? These questions will become standard within two to three years. Beyond that, the hope is that we can kickstart the flywheel of technology adoption across the NHS – better data, a more attractive base for innovation and innovative start-ups, growth in investment, and – critically – potential payback for the NHS to reinvest into innovation.



The NHS local technology spend report
Beyond the hype – What local spending patterns reveal about the NHS's digital future

Conclusion and recommendations

The analysis in this report began with a detailed data analysis and an open series of hypotheses all designed to explore where, when and how technology is procured and adopted at a local level, and whether this matches the stated transformation intent of the NHS and the 10 Year Health Plan. The findings speak for themselves – not enough is spent on innovative technology for clinical change, there is too much variation across the country and there is a disconnect between what is happening at a national level and a local level.

This has led to a set of clear recommendations – for NHS CFOs and clinical leaders, and for government. The NHS has a serious technology investment gap. Closing it requires structural action, not more rhetoric.

"There is a different model of healthcare out there, that uses the digital tools that most people take for granted in every other part of their lives to deliver seamless care and high quality outcomes. Some healthcare organisations including NHS Trusts, private providers and health tech innovators are trying, and are being supported, to make big bets on that different future but there are significant barriers to be overcome for this to turn into common practice. Through the systems of accountability, national payment and procurement rules and inconsistent access to funding the system is perfectly designed to preserve the system it has."

James Lorigan, Associate Director of Business Development, Moorfields Eye Hospital

For NHS CFOs and Trust Executives

The technology budget is a strategic instrument. How you allocate it signals what kind of organisation you intend to become.

1. **Measure your technology spend intensity.** If you are allocating less than 2.5% of operating budget to technology – below the national average – you are falling further behind your peers and increasing your long-term operational risk.

2. **Track left shift spend separately.** If you cannot tell how much of your technology budget goes to categories that reduce hospital demand, improve prevention, or support care at home, you cannot make the case to your board, regional leadership or your ICB that technology is supporting your strategic ambitions.

3. **Build a specific CFO-level business case discipline for all patient-facing innovative technology and publish the template so suppliers know what to expect.** The barrier to left shift adoption is rarely clinical enthusiasm – it is the absence of a credible financial case. Commission robust cost-effectiveness analysis before pilots, not after. But make this simpler for suppliers, publish the template and expectations.

4. **Engage with the HDRS architecture now.** Understanding how your trust's data can contribute to and benefit from HDRS is a strategic priority, not an IT project. The trusts that are HDRS-ready from day one will gain competitive advantage in research income, supplier relationships, and national programme participation.

5. **Stop treating every pilot as a success.** The data shows a pattern of pilots that never convert to commissioning. A pilot with no pathway to procurement is an expensive experiment. Before commissioning a pilot, define what success looks like and what you will do if the evidence is positive.

6. **Encourage mutual investment with innovative suppliers.** Some of the best examples we have seen of technology adoption are where the Trusts' incentives are aligned with high-quality suppliers through small but symbolic equity stakes in start-ups in return for early adoption and revenue.

For Government

1. **Create procurement mandates, not just investment programmes.** Germany's Hospital Future Act shows what happens when digital investment is tied to measurable outcomes and compliance requirements. The UK's approach – capital commitments with local discretion – produces uneven adoption and no accountability. The next phase of NHS technology strategy should include mandatory minimum standards for digital capability, with financial consequences for non-compliance.

2. **Establish a clearer presumption in favour of NHS-validated UK suppliers.** The new public procurement guidance goes some way to support this, but not far enough for the NHS. Where a UK company has demonstrated clinical effectiveness and NHS adoption, procurement processes should actively favour further NHS deployment. This does not mean excluding international suppliers – it means being explicit that domestic capability development is a strategic objective of NHS procurement, not an afterthought.

3. **Fix the CapEx/OpEx structural barrier.** A technology budget that cannot flex between capital and revenue classification will always create the stop-start dynamic that suppresses innovation adoption. Commission HM Treasury and NHSE to develop a framework that removes this barrier for proven technology categories, particularly cloud/SaaS-model health AI tools.

4. **Make HDRS a success at all costs.** The £600m HDRS investment is the single most important enabler of the UK's health technology and life sciences ambition. Its success depends on governance that is genuinely trusted by patients and researchers, technology that is genuinely accessible to approved users, and leadership that combines public health values with commercial pragmatism. Dr Melanie Ivarsson's appointment is the right start. Sustain the political commitment through the inevitable implementation challenges.

5. **Measure and publish NHS technology investment intensity annually.** A government committed to a technology-enabled NHS should publish, annually, the percentage of NHS operating budgets spent on technology – by trust, by ICB, and nationally – benchmarked against peer countries. Transparency is the most powerful tool for driving accountability.

6. **Fix how national funding reaches the frontline.** The Frontline Productivity Programme illustrates a systemic failure in NHS technology funding mechanics: money allocated centrally arrives at trust level too late in the financial year to be deployed meaningfully, particularly for revenue-model technologies like AVT licences. Trust digital leaders have called for a return to the approach used in the early days of Frontline Digitisation – approving bids and allowing organisations to spend ahead of formal HMT sign-off – and this is precisely the kind of delivery-focused reform that should be a first-order priority for NHS England's incoming Director General for Technology. Funding flow reform is not glamorous. It is, however, the difference between a national technology programme that works and one that produces announcements without adoption.

7. **Stop allowing the duplication of local capability with national.** As set out in Finding 7 of the Executive Summary, NHS England has sought to reduce the historic pattern of commissioning overlapping technology capabilities across major programmes: multiple data platforms with similar functions, parallel analytics infrastructure, digital tools built programme-by-programme rather than once-and-shared, but this is not a commentary on previous or current national programmes. When local trust budgets simultaneously fund their own versions of the same capabilities, the combined cost to the system – in money, skills, and implementation drag – far exceeds the headline spend of any single programme. There is no programme currently tasked with mapping what exists at a local level, what is being built, and what should be rationalised. This is not a technology problem. It is a local governance failure that compounds every other structural weakness identified in this report.

8. **Mandate digital integration across national clinical programmes.** Urgent and Emergency Care (UEC), Cancer, Mental Health, Maternity – each major national clinical programme operates its own digital infrastructure, procurement frameworks, and data architecture. The result is an ecosystem that cannot support the joined-up care the 10 Year Health Plan describes. A patient with a long-term condition managed across mental health, primary care, and UEC pathways exists in three separate digital worlds. Digital by default needs to be a requirement applied to every new national programme, not an aspiration applied retrospectively. NHS England's Chief Digital Officer should have formal sign-off authority on the digital architecture of every major national clinical programme before it enters procurement.

From transparency comes change

The findings in this report are slightly uncomfortable, and they are meant to be. The NHS is not short of strategy documents, technology roadmaps, or ministerial commitments. It is short of honest, granular, independently produced evidence about what is actually happening on the ground – where the money is going, where it is not, and what that pattern is costing in clinical terms.

That is what this analysis attempts to provide. The solutions are not complicated. They require a five-year revenue settlement, a meaningful shift in what technology gets commissioned, procurement mechanics that let money reach the frontline before the financial year expires, and the institutional courage to stop funding what does not work.

None of that depends on a single minister, a spending review, or a new national programme. It depends on NHS leaders, investors, and suppliers making better decisions with better information. From transparency comes change.

The NHS local technology spend report
Beyond the hype – What local spending patterns reveal about the NHS's digital future

About the authors

Baringa has worked at the intersection of health system strategy and technology transformation for over a decade, advising NHS England, integrated care systems and leading health technology companies on investment prioritisation, programme design and commercial strategy.

Sarah Ashley

Partner, Baringa – Global Government & Public Sector Lead

Sarah Ashley has spent over two decades at the intersection of government strategy and large-scale commercial transformation. A graduate of the University of Oxford, she began her consulting career at Accenture before joining EY as a Director, where she spent 13 years working across central government on some of the most operationally complex programmes in the public sector. She joined Baringa in 2019, where she leads the firm's Global Government and Public Sector practice. Sarah's work spans the full arc of government transformation – from establishing new public bodies and developing commercial strategies to delivering large-scale technology programmes where the stakes for citizens are highest. Her proudest career moments are those where consulting work has built better communities or protected the most vulnerable: that includes her work with the National Citizen Service and, during the pandemic, her advisory role with the UK Health Security Agency on the COVID-19 response – work that required the kind of practical, delivery-oriented thinking that complex crises demand and hypothetical frameworks cannot provide.

John Calder

Partner, Baringa – Health Commercial, Supply Chain & Procurement

John is a Founding Partner of Supply Chain & Procurement at Baringa with over a decade at the firm and nearly 25 years' cross-industry supply chain, procurement and technology experience. His career spans Consumer Goods, Retail, Telco and Media, Oil and Gas, Mining, Chemicals, Utilities, Government, and Non-Profit. His career highlight was leading the design of the NHS COVID-19 vaccine supply chain – from concept to delivery in just five weeks – supporting rollout to over 2,000 sites, with 93 million vaccines delivered at a damage or loss rate of just 0.02%. Public Health England estimates the programme saved over 100,000 lives. John now works exclusively in health at Baringa, focusing on commercial, supply chain and technology transformation across the NHS and life sciences, working at national level, across a number of Health ALBs and at local level. He is a Chartered Fellow of the Chartered Institute of Logistics and Transport, an accredited Executive Coach, and chair of the Board of Trustees at Bliss, the national premature baby charity.

Stephen Humphreys

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Stephen joined Baringa in 2018, bringing cross-sector experience spanning financial services, regulatory transformation and government consulting. He was seconded to NHS Test and Trace at the start of the pandemic, where he served as Deputy Director responsible for establishing the commercial function – managing a team of 30 and overseeing a budget of £2 billion. The experience of building mission-critical infrastructure at pace, under conditions of genuine national emergency, shaped both his approach to client work and his commitment to the NHS as an institution worth investing in. He subsequently supported the rollout of the NHS COVID-19 vaccine programme and helped design a new portfolio management function following a major health system merger.

Zdravko Mladenov

Partner, Baringa – NHS Digital Transformation

Zdravko brings two decades of senior executive and strategic consulting experience to NHS digital transformation. An INSEAD alumnus and former McKinsey London partner, his career has spanned technology strategy and enterprise transformation across financial services, telecommunications, retail, and public sector organisations. At Baringa, Zdravko applies the strategic depth and implementation credibility of a career built in demanding, high-stakes transformation environments to the challenge of NHS digital modernisation – bringing cross-sector pattern recognition and executive-level change leadership to health system technology strategy.

Katie Davidson

Director, Baringa – Government & Public Sector

Katie Davidson is a Director in Baringa's health consultancy team, with more than fifteen years of specialist experience working with and within the NHS. Her career spans both sides of the NHS–consulting relationship: she spent more than five years working directly inside the health system before moving into advisory work, giving her an operational fluency that is rare among management consultants and that shapes how she designs and delivers transformation programmes. Her client portfolio spans every level of the health architecture – from NHS England and the Department of Health and Social Care at the national level, through Integrated Care Systems and Integrated Care Boards at regional level, to acute and mental health provider trusts at the frontline. Her most significant recent programme leadership includes running the transformation programme to establish NHS England's Data Services following the NHSE/NHSD merger – building strategies, operating structures and governance frameworks for a major new function from inception – and serving as Programme PMO Director for the Federated Data Platform, NHS England's largest ever non-clinical technology procurement, where she led multi-disciplinary delivery teams and worked directly with health ministers and executive stakeholders to maintain programme momentum under intense time pressure. Her work at Baringa concentrates on translating national health strategy into operational programmes that actually deliver – the stage at which the NHS's most ambitious technology initiatives most frequently stall.

Sunny Dosanjh

Partner, Baringa – Government & Public Sector

Sunny Dosanjh is a Partner at Baringa, leading AI and Technology across Health and Government. Sunny's career began in medicine before moving into strategy consulting, and for the past decade he has been at the forefront of AI and data in the NHS. He became the NHS's first Director of Analytics at an Integrated Care System, at Frimley, before founding Clinify, Deloitte's Software-as-a-Medical-Device business, building AI products for the NHS from concept to deployment, winning two NHSx AI Awards under his leadership. Most recently he delivered the first commercial product live on the NHS Federated Data Platform, live across 20 hospitals. He now works with organisations, helping them turn AI ambition into adopted, scaled reality. He is a guest lecturer in Health Data Science and Product Innovation at UCL.

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The NHS local technology spend report

Beyond the hype – What local spending patterns reveal about the NHS's digital future