BCS' Response NHS 10 Year Workforce Plan - call for evidence

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1 Section 1: the 3 shifts

The Government's introduction to the consultation: The NHS must change. Our 10 Year Health Plan makes clear our ambition to move from a centralised system to one where patients have greater control over their care and frontline staff are empowered to shape and improve services. We know that those working closest to patients understand best how local services can be delivered.

We want to hear from organisations, clinicians, staff groups and partners who are already driving change at a local level.

We are seeking evidence on how the 3 shifts are being implemented locally, and the impact on your workforce. Where possible, please support your submission with data and measurable outcomes, so we can learn from what is working well and apply those lessons across the NHS.

2 Section 2: modelling assumptions

The Government's Aim: The workforce we build today will determine whether we can deliver the ambitions of the 10 Year Health Plan. That means challenging old assumptions, testing new ideas and being honest about what the future demands.

Big changes are coming. Artificial intelligence, breakthroughs in genomics and an ageing population will transform the way care is delivered. We need to capitalise on these shifts now or the NHS risks being left behind

We need the insight of those who see, every day, what really works for staff and citizens - be that in the NHS, in other sectors or in other healthcare systems around the world. Your evidence will help us build a workforce that is ready, resilient and The most impactful and hard work is about the digitalisation of the support system and infrastructure -the back end as it were.

That's where you can drive more value capable of delivering world-class care.
In this section, please submit evidence of specific assumptions you use in workforce modelling - for example, how service redesign, such as new community services or digital models of care might affect the numbers, deployment and/or skill mix of staff how that impacts on workforce supply and demand, including career and training pathways.

3 Section 3: BCS Response: Specific Assumptions in Workforce Modelling

4 BCS' Key messages

1. The move from analogue to digital will result in the urgent demand for digital, data and technology (DDaT) roles. Recruitment and development of people into these roles is key. Professional bodies can play an important role in this.
2. With increased reliance on digital tools it is vital that the DDaT profession is brought onto a par with other members of the multi-disciplinary team - doctors, nurses, accountants, etc. to help ensure patient safety. BCS, the Chartered Institute for IT and the Federation for Informatics Professionals (FEDIP) recommend mandatory professional registration.
3. Professional registration should be managed by the professional bodies such as BCS, the Chartered Institute for IT, and the Federation for Informatics Professionals.
4. The NHS needs to develop clear digital career pathways for staff to maximise upskilling and retention. These pathways should be based on the Occupational Architecture developed by FEDIP and BCS, which is underpinned by competency frameworks, such as the globally recognised Skills Framework for the Information Age (SFIA), the Government DDaT Framework and the National Competency Framework for Data Professionals.
5. Executives and Boards have a pivotal role in ensuring that AI and digitally enabled innovation are governed responsibly and strategically. They must be equipped with the right tools, frameworks, and understanding to oversee the safe and effective adoption of AI technologies, balancing innovation opportunities with organisational risk and public trust.
6. All impacted NHS staff need training in AI governance, ethics, and implementation, but board members and executive teams must demonstrate confident, informed leadership in this domain—setting clear expectations for accountability, transparency, and continuous learning across their organisations.
7. To realise the expected benefits of shifting care from hospitals to community, the community based NHS workforce must be digitally upskilled to deliver joined-up high-quality health and care and to support patients and carers in the use of digital tools.
8. The shift from sickness to prevention will depend on the routine use of data to predict risk and design interventions that prevent harm before it occurs. This will require interoperable data environments and embedded analytical capacity across national, regional, and local levels.
9. Responsible risk-taking should be supported through funding and governance models, iterative development, as well as learning and scaling up from pilots.
10. Legacy systems have to be systematically addressed in order that the benefits of digitally enabled change are maximised.

Digital First Service Redesign: The government is signalling that care delivery will increasingly shift from analogue to predominately digital-first models, including virtual consultations, remote monitoring, and AI-assisted diagnostics. As a result, there will be an urgent demand for all digital, data and technology (DDaT) roles, with particular growth in roles such as clinical informaticians, data scientists, AI governance specialists, and cybersecurity experts. Conversely, automation will reduce the need for traditional administrative roles and some hospital-based positions as care moves closer to community and virtual settings.

Professional Registration: The integration of digital technologies introduces new risks that require robust governance. Increased use of digital technologies raises risk, and digital staff need to be held to account in the same way as other members of the multidisciplinary team, such as doctors, nurses and accountants.

BCS recommends mandatory professional registration for individuals in digital, data, and technology roles, including those employed by NHS vendors and contractors and including those in the private healthcare sector. This includes mandatory registration and periodic revalidation to ensure competency and ethical conduct.

This is supported by public opinion. A recent survey of 2000 people commissioned by BCS from YouGov found that 85% of the respondents agreed that IT professionals working on systems that affect the public should be required to join a public register and follow an independent code of conduct, like doctors or lawyers.

Crucial to driving change are managers with digital competencies who will oversee this change with the aim of inspiring staff to adopt digital transformation. This will also need the allocation of sufficient resources and time for the upskilling of all staff to encourage engagement/buy-in and the adoption of new ways of working.

Digital literacy and fluency becomes essential across all roles, including clinical, managerial, and support staff.·

Interdisciplinary collaboration also requires new soft skills—communication, systems thinking, and ethical decision-making in tech-enabled environments.

The existing professional bodies, such as FEDIP and BCS, should be tasked with the professionalisation of the DDaT workforce as they already have tools available to register and enable continuing professional development of the DDaT workforce.

Career pathways: BCS recommends the development of clear career pathways for all digital data and technology roles, in conjunction with clinical professional bodies for clinical informaticians. This is to maximise upskilling and retention of the current and future workforce.

The current DDaT Workforce Census is an essential tool for understanding previous and current capacity and capability, whilst the Regional Digital Workforce Roadmaps provide a pathway to develop and change the workforce to meet future need.

The DDaT Census is based on an Occupational Architecture containing standard role profiles, which was developed by FEDIP and BCS. The role profiles are underpinned by competency frameworks, such as the globally recognised Skills Framework for an Information Age (SFIA), the Government DDaT Framework and the National Competency Framework for Data Professionals.

These role profiles should be used to define career pathways and should be further developed to incorporate recommendations about learning resources and qualifications to support individual career progression.

The professional bodies within FEDIP, including BCS, need to determine what the competencies should look like and should be tasked with continuing to maintain and refresh the competency frameworks and roles to reflect new skills and roles as they develop.

BCS also recommends that the DDaT workforce census should be incorporated into NHS workforce forecasts, rather than being a separate data collection.

Career pathways include routes into the health service, for example via apprenticeships. Future workforce modelling assumes flexible and modular career pathways, supported by micro-credentials, apprenticeships, and CPD to promote lifelong learning.

Professional bodies, such as BCS and FEDIP, have a role to play in the delivery of apprenticeships, professional certifications and CPD resources to develop the DDaT workforce.

The NHS also has to compete with private and tech sectors for digital talent, especially in AI, data science, and cybersecurity. Workforce planning must account for attractive career options, professional recognition, and flexible development pathways to retain skilled staff.

There are particular issues that need to be tackled with those moving from a clinical to a digital career, wishing to retain both aspects of their work.Without attractive career pathways and professional recognition, retention will suffer.

Alongside this, digital and data literacy must become a core competency for all NHS staff—not only clinicians but also administrative, support and managerial roles so that technology is embedded into everyday practice.

AI and Automation: BCS assumes that AI will automate many routine clinical and administrative tasks, reducing repetitive workloads and freeing clinicians to focus on complex care. This shift will require a workforce skilled in AI governance, ethics, and implementation, changing the skill mix and creating new career pathways. These

assumptions reflect commitments in the Government's AI in Health and Care Strategy, which highlights the need for ethical frameworks and workforce readiness.

Community-based digital models: Government policy signals a shift from hospital-centric care towards digitally supported community models, as outlined in the NHS Long Term Plan and Integrated Care Systems Framework. In order to realise the expected benefits of shifting care from hospitals to community it will take an NHS workforce that can deliver linked high-quality health and care. This will require frontline staff confident in using digital tools and supporting patients in accessing services via platforms such as the NHS App. Vendors and the NHS must collaborate to deliver comprehensive training and upskilling programmes to enable this transition.

Data and analytics will underpin future workforce planning by enabling predictive modelling and evidence-based decision-making, not only in community based practices but across the NHS.

BCS recommends interoperability standards, flexible implementation, and independent evaluation to ensure these tools deliver value without disrupting mature local systems. This recommendation aligns with the Data Saves Lives strategy, which calls for interoperability and local empowerment.

Risk appetite: A key assumption is that the NHS must mature its approach to risk in digital innovation. Unlike other sectors that embrace experimentation and accept that some initiatives may fail, the NHS often defaults to a low-risk culture where failure attracts disproportionate criticism. To unlock the potential of digital transformation, funding and governance models should support responsible risk-taking, iterative development, and learning and scaling up from pilots. This aligns with the Government's Innovation and Technology Strategy for Health and Care, which advocates for agile approaches and local flexibility in digital investment.

Digital Enablement: The NHS is more than just frontline clinicians and therefore, transformation is not just about the digitalisation of these roles. For instance, digital outsourcing is one way the health and care service can gain extra capacity by addressing staff skills shortages and tackling backlogs. An example is how the shortages of UK-based skills in NHS Radiology are addressed.

Nearly every NHS radiology department now uses teleradiology to manage a 30% shortfall in radiologists and radiographers. Imaging scans are securely transmitted to external providers, who employ UK-based and international professionals to deliver timely, high-quality reports. This approach demonstrates how digital health services can plug skill gaps, maintain standards, and improve patient outcomes while supporting elective recovery, consistent with the Elective Recovery Plan and Data Saves Lives strategy.

Legacy System: A critical assumption in workforce modelling is the need to address the legacy debt of outdated systems that currently constrain efficiency and innovation. Modernising these systems will require significant investment in infrastructure and skilled IT professionals who can lead digital transformation in collaboration with clinical teams. Furthermore, the NHS will need a strong cadre of infrastructure support staff, such as network engineers and systems administrators, to maintain secure, resilient platforms and ensure continuity of care. Without these foundational roles, digital transformation cannot succeed.

More effective funding and incentive models must be developed that enable sustained local investment in technology and digital capability. The current centralised funding model can act as a brake on progress, as the constraints of CDEL and RDEL limit flexibility and make it difficult for organisations to reinvest savings or allocate resources to infrastructure renewal and innovation. This lack of autonomy often disincentivises local initiatives, even where investment would deliver clear quality, economic, and financial benefits.

5 Section 3: productivity gains from wider 10 Year Health Plan implementation

Government intro: In his independent investigation of the NHS in England, Lord Darzi said: Falling productivity doesn't reduce the workload for staff. Rather, it crushes their enjoyment of work. Instead of putting their time and talents into achieving better outcomes, clinicians' efforts are wasted on solving process problems, such as ringing around wards desperately trying to find available beds.
To deliver transformational change we must improve productivity. This does not mean asking staff to work harder, it means changing the way we deploy staff in response to other developments, making it easier for them to do their jobs and bringing back their enjoyment of work.
In this section, please provide evidence of:

- the top digital initiatives you have delivered - in the NHS, other sectors or internationally - that have successfully increased workforce productivity or reduced demand
- actions taken to identify and address gaps in training (pre or post-registration) that support delivery of the 3 shifts
- policies or initiatives that have enabled the NHS to play a bigger role in local communities (for example, widening access, creating opportunities or supporting underserved groups)
- where you have managed changing expectations and increased patient participation in their care through digital tools and, where applicable, you have adjusted

workforce planning to reflect this (for example, increased training to deliver new approaches to diabetes management to reflect new digital tools.

6 BCS' Response with examples

Example 1 that has successfully increased workforce productivity and patient outcomes

Case Study Summary: Robot-Assisted Surgery at Royal Papworth Hospital, Cambridgeshire

Royal Papworth Hospital introduced the **Versius surgical robot** in 2023 for minimally invasive thoracic procedures. The system is designed to **augment surgeons**, not replace them, by providing enhanced precision and control in complex, confined surgical spaces. It is modular and compact, making it easier to integrate into existing operating theatres.

Tangible Outcomes for Productivity and Patient Care:

- **Bed Capacity Gains:** Earlier discharge frees up beds, reducing pressure on inpatient resources.
- **Resource Efficiency:** Lower demand for nursing time and reduced length of stay deliver significant cost savings.
- **Workforce Benefits:** Surgeons experience less physical strain, supporting retention and reducing burnout.
- **Scalability:** The system's modular design and integration with existing GS1 traceability infrastructure enable expansion to other surgical disciplines.

How Has It Helped Patients?

- **Faster Recovery:** Patients are discharged on average **two days earlier** compared to conventional surgery.
- **Improved Safety:** Smaller incisions and greater precision reduce complications and readmissions.
- **Better Experience:** Shorter hospital stays and less invasive procedures improve overall patient satisfaction.

Key Insights:
The success of Versius demonstrates how **technology can alleviate workforce pressures and improve patient outcomes simultaneously**, provided implementation is supported by strong clinical engagement and robust change management.

Example 2 - a policy or initiative has enabled the NHS to play a bigger role in local communities

The Cornwall and Isles of Scilly Integrated Care System (ICS) has made a very significant commitment to neighbourhood care through its Integrated Neighbourhood Teams (INTs)

supported by digital technologies and a strong focus on prevention. They are working across all three shifts in the 10-year plan. Some of the best things about the approach is the community leadership and system wide collaboration, technology pull rather than push and an incremental test and learn approach over the long term rather than seeking an immediate fix.

The initiative incorporates digitalisation and digital transformation through several key elements:

- **Brave AI for Risk Stratification**: Sites are required to adopt and use Brave AI as a risk stratification tool. This AI helps identify individuals at risk of frailty or approaching end-of-life, enabling proactive and targeted care interventions.
- **Dashboards for Monitoring**: INT Dashboard Hub provides data-driven insights for local decision-making. It includes tools like the PHM Dashboard, Health Inequalities Dashboard, and Admission Avoidance Dashboard, which help track performance and prioritise actions.
- **Digital Shared Care Record**: The initiative leverages a shared care record across Devon and Cornwall, enabling seamless information sharing among healthcare providers and improving coordination of care.
- **Frailty Virtual Ward**: A digital solution that supports remote monitoring and management of frail patients, reducing the need for hospital admissions.
- **End of Life 24/7 Phoneline and Rapid Response**: A digital communication system provides round-the-clock support for end-of-life care, ensuring timely responses and virtual consultations.

Key Insights: On the technology front Brave AI risk stratification has been deployed widely across primary care and operates on county-wide linked data sets. This ties in well with the BI/Analytics and PHM development which is bringing new insights into the early operation of the INTs.

These digital tools and AI applications optimise care delivery by enabling proactive, data-driven, and integrated approaches to managing frailty and end-of-life care.

Example 3 - action taken to identify and address gaps in training

NWSDN Digital Apprenticeship Scheme

The North West Skills Development Network delivers digital apprenticeships to grow NHS capability in roles like **Data Technician** and **Cyber Security Technologist**. Apprentices are recruited regionally, placed in NHS Trusts and ICBs and supported through structured learning, mentoring, and development days.

Key Insights:

- The scheme has a 91% retention rate, 82% achievement rate and 78% remain in NHS roles post completion.
- It has helped to break down barriers to NHS careers, particularly for young people in underserved areas.
- Benefits include strengthening digital talent pipelines, supporting EPR delivery, and improving workforce diversity.

7 Additional comments

BCS, The Chartered Institute for IT, urges the NHS to embed digital professionalism, ethical leadership, and inclusive tech-enabled care into workforce planning to achieve the ambitions of the 10-Year Health Plan.

All individuals in digital, data, and technology roles should be professionally registered, with mandatory revalidation for managers every three years to ensure competency and ethical conduct. Public registration across all levels will promote accountability and professionalism, supported by bodies such as BCS, and FEDIP.

FEDIP is submitting its own consultation response, which aligns closely with ours and its key messages are:

- The shift from **analogue to digital** will necessitate an immediate and sustained expansion of the Digital, Data and Technology (DDaT) workforce with the requisite skills to make that a reality.
- Professionalisation of the DDaT workforce will be essential to ensure the workforce remains fit-for-purpose in the future. Mobilising existing professional bodies with renewed vigour will be essential for maintaining a comprehensive DDaT workforce census and a peer-led competency framework and accreditation process.
- The shift from **sickness to prevention** will depend on the routine use of data to predict risk and design interventions that prevent harm before it occurs. This will require interoperable data environments and embedded analytical capacity across national, regional, and local levels.
- Delivering the benefits envisaged through shifting care from **hospital to community** will be dependent on an NHS workforce which can deliver high-quality linked health and care data sets, with timely analytical products

Adopting these measures will create a resilient, digitally capable workforce ready to deliver world-class care.

Who we are

BCS is the UK's Chartered Institute for Information Technology. The purpose of BCS as defined by its Royal Charter is to promote and advance the education and practice of computing for the benefit of the public.

We bring together industry, academics, practitioners, and government to share knowledge, promote new thinking, inform the design of new curricula, shape public policy and inform the public.

As the professional membership and accreditation body for Information Technology we serve over 60,000 members including practitioners, businesses, academics, and students, in the UK and internationally.

We also accredit the computing degree courses in over ninety universities around the UK. As a leading information technology qualification body, we offer a range of widely recognised professional and end-user qualifications.