



# Vanguard Innovation Programme

BT Health  
Innovating together.  
Transforming care.



# Hello



Many people told me that joining BT was a bold change of direction, jumping from one large organisation to another and facing a whole new set of challenges. But as most of you know, I love a challenge – and the NHS won't survive if we don't start to think differently. We need strong, trusted, transparent partnerships that will drive true transformation.

In my first year here, I've led our new health strategy and been guardian to a health business that needed to rapidly evolve to better meet the needs of the NHS. I've spent a lot of time understanding the challenges you face and how we can work together to drive real change.

As part of that, I've formed a Clinical Advisory Board, a team of leading clinicians with decades of experience in frontline care. I'm working alongside them to make sure our healthcare solutions are always rooted in real-world insight, leading to better patient outcomes.

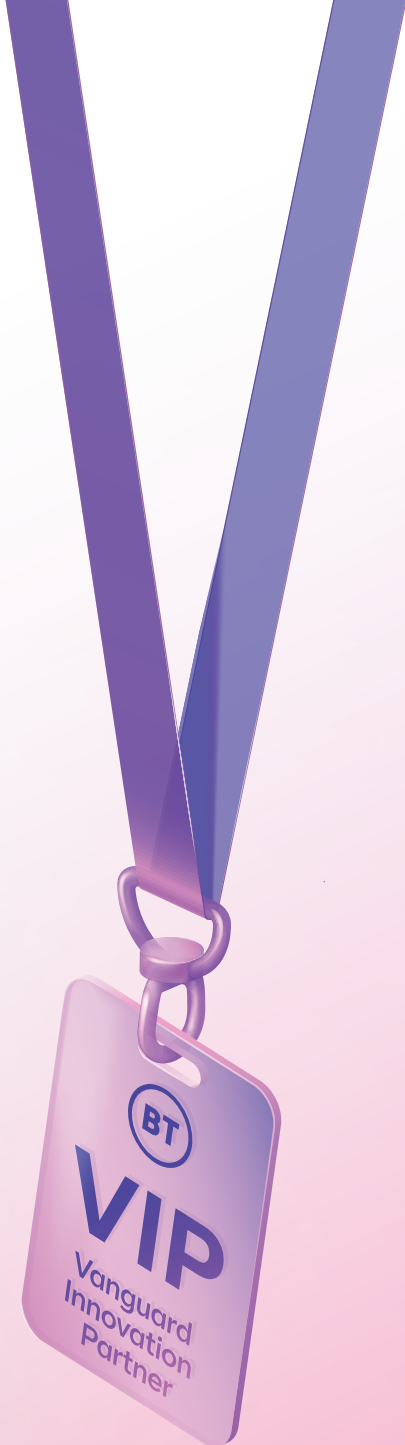
I've found a company that wants to do the right thing, has the scale to truly make a difference to people's lives, and has a talented team who can make a longstanding difference to the NHS. That's why I came to BT, where our mission to connect for good can combine with the brilliance of the NHS to create a winning partnership.

The Vanguard Innovation Programme is all about looking up, looking for the sunshine and finding a way to work differently. It will allow us to innovate together to drive digital transformation within the NHS. Guided by the founding principles of honesty and trust, we're seeking to build meaningful relationships that will allow us to co-create and thrive together for a brighter future.

Between us we have amazing people. Let's point them in the right direction and transform together.

Thanks,

**Professor Sultan Mahmud**  
Healthcare Director, BT



# What is the Vanguard Innovation Programme?

The Vanguard Innovation Programme will reset the relationship between the NHS and BT Health. We're pivoting our approach to one that identifies the NHS's challenges and issues first, and then solves them by developing and innovating solutions together. We believe this approach is the future of healthcare digital transformation.

**And it's not just words: we're backing this up with action.**

## Bringing about change through co-creation

One of the key driving forces behind the Vanguard Innovation Programme is co-creation. Rather than simply building new technologies and trying to make them fit, we're working together with frontline clinicians to solve real-world problems.

With the Vanguard Innovation Programme, BT Health is opening up its resources, spaces, people and technology to the NHS, empowering it to build the healthcare solutions of tomorrow.

Working together, we can look at what the challenges are in a

particular location or trust, before creating scalable technologies to overcome them. Following successful trials, solutions can then be rolled out further throughout the NHS at reduced rates. This gives the NHS a chance to fully assess the value of new solutions, while healthcare professionals and patients can begin to benefit from them immediately.

This is all made possible thanks to our deep relationships within the NHS, as well as our ongoing investment in research and development.

## Clinically led, digitally enabled

"The NHS has always been, and will always be, a people business," says Dr Timothy Ferris, National Director of Transformation, in the government's recently unveiled plan for digital health and social care. "But it is also the case that the NHS has always been at the forefront of innovation and utilising new technology to improve outcomes and experience for patients."

With the Vanguard Innovation Programme, we want to continue that record of innovation. We've aligned the programme to the NHS's 'What's Good Looks Like' framework. And we've brought together a world-class team of senior healthcare, digital and clinical leaders to support our partnership ambitions with the NHS. Our team are from within the NHS, for the NHS.

The Vanguard Innovation Programme will see the NHS and BT working together towards a shared ambition and strategic objectives: to create a better digital experience for patients across a joined-up

healthcare system. Being the digital glue between primary, secondary and community services.

We can support the NHS to digitise, connect and transform. Bringing the best of digital innovation and infrastructure to shift care closer to the home; using technology to tackle patient backlogs by improving hospital flow; and raising the level of digital maturity across the entire NHS.

Big ambitions, for sure. But that's what the Vanguard Innovation Programme is about. Being bold, refusing to be held back by old ways of working, traditional thinking and yesterday's ideas. It's about a structured partnership all the way from our initial engagement, through deployment and adoption, and on to scale.

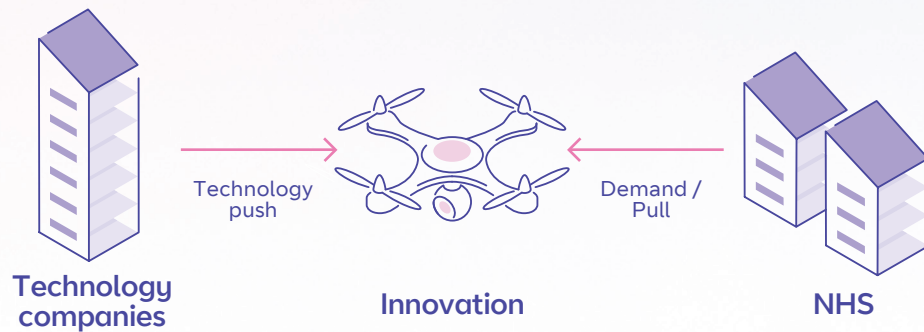


## Delivery team

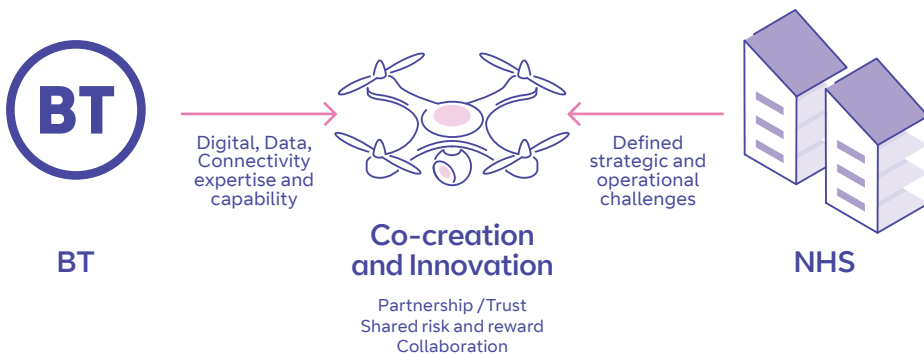
Our team has expertise in:

- User-centred design
- Connectivity and infrastructure
- Data analytics and AI
- Robotics process automation
- NHS digital transformation and change management
- Health economics and evaluation
- Information governance and legal, commercial, intellectual property
- Applied research and horizon scanning

## The old approach



## BT Vanguard



## The perks of being a Vanguard

As a member of our Vanguard Innovation Programme, you'll benefit from many perks that will help you improve healthcare for staff and for patients. Here are some of them.

- Access our meeting spaces for away days and strategy meetings.
- Improve productivity and morale with ImproveWell digital staff-engagement.
- Be part of a network of trusts and partners sharing their knowledge, collaborating and coming together at exclusive events.
- Boost your work with our investment and access to facilities like our DigiHealth Innovation Hub at Adastral Park.
- Get the help of our data and artificial intelligence experts.
- Keep costs down with exclusive discounts on infrastructure.





# Innovating for the next generation of healthcare

There are two key ways in which we can improve technology in the UK. We can build on existing digital capabilities, and we can create new digital tools.

Our ongoing innovation has a few core benefits:



Optimise delivery of care



Improve efficiency



Create the cutting-edge technology of tomorrow

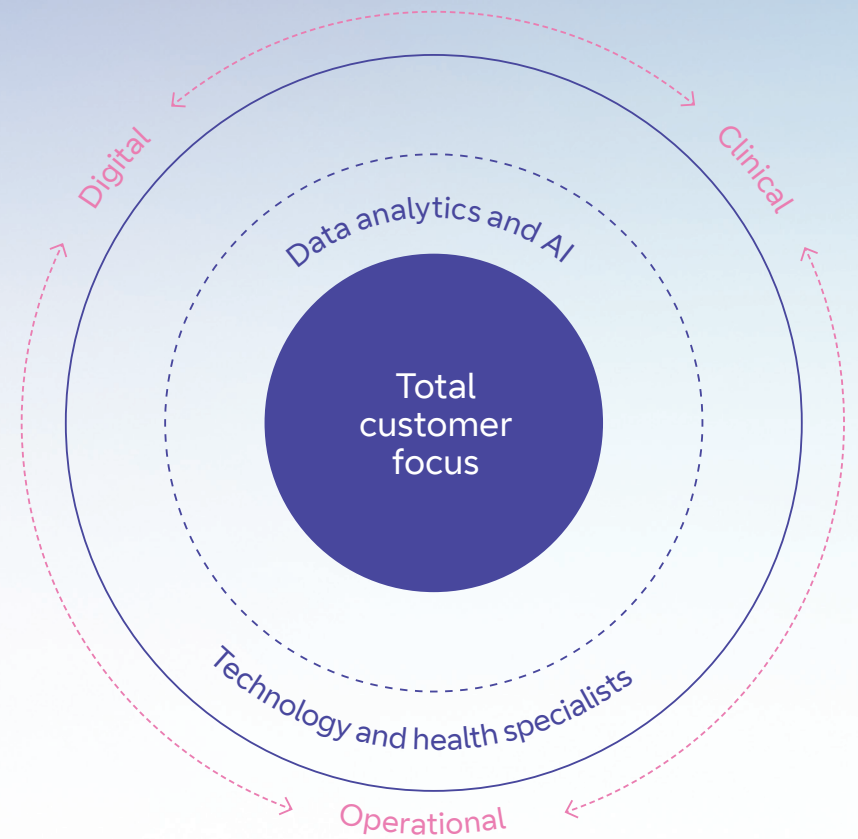
## Creating a digitally powered model for healthcare

At the heart of all our solutions is a focus on customers and how to give them better experiences.

We also have an established track record of aggregating large volumes of data from different sources, delivering meaningful insights with artificial intelligence and analytics.

To help us achieve our aims, we work with leaders and innovators in both healthcare and technology. They include Health Tech Alliance, Amazon Web Services, Cisco, Apple and Microsoft.

All of this brings together three critical components: digital, clinical and operational expertise.



## Improving through partnerships

These are just some of the partners we work with, looking at key issues like security, the Internet of Things and artificial intelligence.



## Meet our Clinical Advisory Board

We have a team of clinicians with decades of experience in frontline care. These leading NHS professionals work with us to make sure our new healthcare solutions meet NHS needs, resulting in improved patient and system outcomes.

All our solutions are designed to be safe, effective and outcome driven – supported by strong evidence and regulatory compliance (DTAC).

And our Clinical Advisory Board will be vital to getting the support of clinicians before solutions are rolled out on a wider scale.

### Who's on the board?

We currently have seven members on our Clinical Advisory Board.



### Professor Ann-Marie Cannaby

- Chief Nurse at The Royal Wolverhampton NHS Trust
- Interim Chief Nurse and Deputy CEO at Walsall Healthcare NHS Trust

#### What does innovation mean to you?

“Being creative, developing something new to solve problems or create value.”



### Dr Mateen Jiwani

- Practicing GP
- Non-executive Director for Essex Partnership University NHS Foundation Trust
- Honorary Clinical Lecturer at Imperial College London

#### What does innovation mean to you?

“Doing something differently, using new tools and methods that leaves a lasting change for the betterment of your people.”



### Dr Michael Quinn

- NHS physician, working in acute medicine
- Medical Informatician at Queen's University Belfast

#### What does innovation mean to you?

“For me, innovation is simply about achieving better outcomes for patients using whatever tools we have available. I believe involving teams from different backgrounds is crucial, and our role is to help focus these efforts on what patients really need.”



### Dr Peter Ingham

- Clinical Lead for the Birmingham and Solihull COVID-19 vaccination programme.
- Clinician at University Hospitals Birmingham NHS Foundation Trust

#### What does innovation mean to you?

“COVID-19 has demonstrated the importance of digital innovation. Since joining the Clinical Board my eyes have been opened to the potential for digital transformation in healthcare and the expertise and capabilities BT can bring to the table to make a real difference for the NHS.”



### Dr Sandeep Bansal

- Founder and CEO Medic Creations
- Faculty of Surgical Leadership & Innovation at Harvard Medical School

#### What does innovation mean to you?

“Innovation to me is not the technology or process or service that’s being implemented, but taking people and stakeholders on a journey for better results in patient care, improvements for the system and for the healthcare professionals.”



### Dr Vishen Ramkisson

- Senior Clinical Lead for NHS Digital
- Practicing GP

#### What does innovation mean to you?

“Digital innovation is the key to transforming healthcare services to meet the changing needs of our wider



### Professor Dominick Shaw

- Professor of Respiratory Medicine at the University of Nottingham
- Head of Service for the respiratory speciality in Nottingham University Hospitals NHS Trust

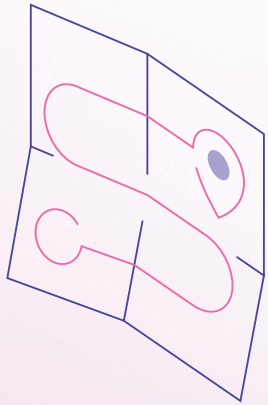
#### What does innovation mean to you?

“Innovation in healthcare is any development that improves health outcomes, or the experiences of staff or patients. It can be as small as pre-printing a prescription on a drug card to make sure a drug is given, or as large as a new electronic patient record to guide patient



# Innovative solutions to modern challenges

To choose the right technology, you first need to identify what you want to achieve, including any challenges you're trying to overcome. We offer a wide range of solutions, and to help you choose the right one, we can carry out a comprehensive assessment.



## Digital Maturity Assessment

This independently validated and internationally recognised assessment gives trusts the clarity and advice they need to create an informed strategy for meeting their digital transformation goals. It breaks the current cycle of outdated technology, while preparing for digital healthcare and the New Hospital programme.

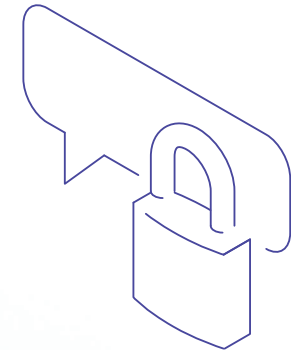


## Secure Networks

Your network underpins all your technology. And security must underpin your network. Secure networking makes future healthcare achievable, and keeps today's technologies online and safe for everyone. It's no wonder over half our customers say security is their number one network priority.

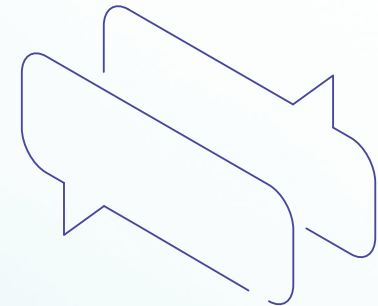
## Secure Messaging

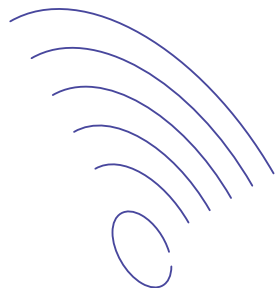
Get two-way messaging for a new era of connected care. This secure, scalable, real-time, fully integrated clinical communication solution enables everything from quick chats to voice calls and patient specific chats.



## Smart Messaging

Smart Messaging can be used for everything from urgent patient alerts through to everyday information. The scale of our platform means that you could reach millions of patients with the click of a button.





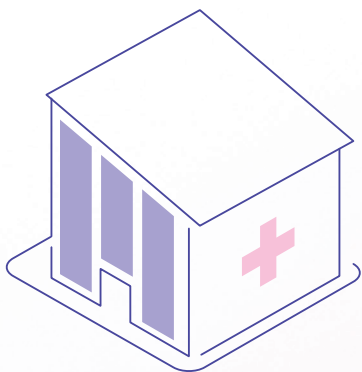
## Future Wireless

We're connecting ambulance staff, community nurses, care workers, clinicians, the public and patients themselves to break down the barriers to care. Triage in local community settings like shopping centres and libraries. Diagnose domestically. Give reassurance on the road. Because care should be everywhere.



## Command Centre

Get an instant snapshot of demand against capacity. Command Centre gives you better visibility of real need, patient flow, risk, discharge likelihood, and upcoming needs and bottlenecks – all via a single screen. This information will feed into next-generation, AI-driven resource management tools.

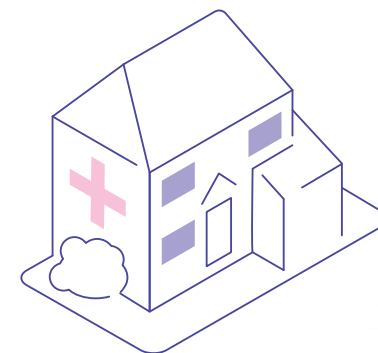


## Community Diagnostics Centres

Take care in the community to a new level. Make diagnostic journeys more efficient, easier and accessible for patients, leading to faster diagnosis, improved patient experience and reduced pressure on acute hospital resources.

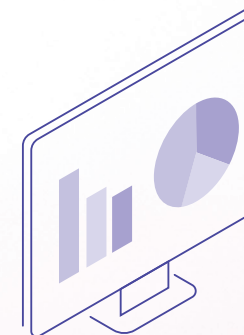
## Virtual Ward and Virtual Care

Enable better, broader home care for patients. Bring together connectivity, wearables and unified communications to provide hospital-standard care at home for patients in a range of contexts.



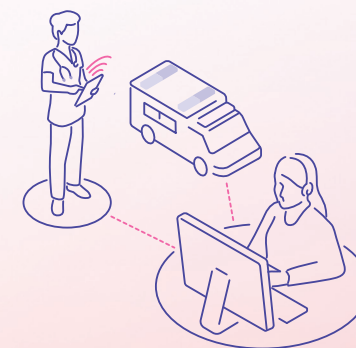
## Data Analytics and AI

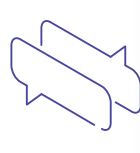
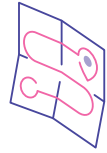
The NHS collects vast amounts of health data, from clinical wearables to public health records. Using AI-driven analytics, you can give teams key insights, helping operational and strategic decision-making at place or system level.



## Emergency Services Network

Bring the hospital to the patients. Our certified BT/EE router supports most communication bearers, including the Emergency Services Network (ESN), giving first responders a common platform to communicate with control rooms and, eventually, with all English ambulance trusts and services.





**Digital Maturity Assessment**

**Secure Networks**

**Secure Messaging**

**Smart Messaging**

**Future Wireless**

**Command Centre**

**Community Diagnostics Hub**

**Virtual Ward**

**Data Analytics and AI**

**Emergency Services Network**

Have a secure, high-speed health network for voice, data and cloud

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Be ready for next-generation 5G healthcare

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Get patient data, securely, wherever it needs to be

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Get real-time operational visibility

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Optimise resources, people and budgets

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Deliver care closer to home

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Integrate health, social and community care

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Triage remotely and deliver direct care efficiently

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Optimise care pathways, and learn from every patient

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Improve the patient experience

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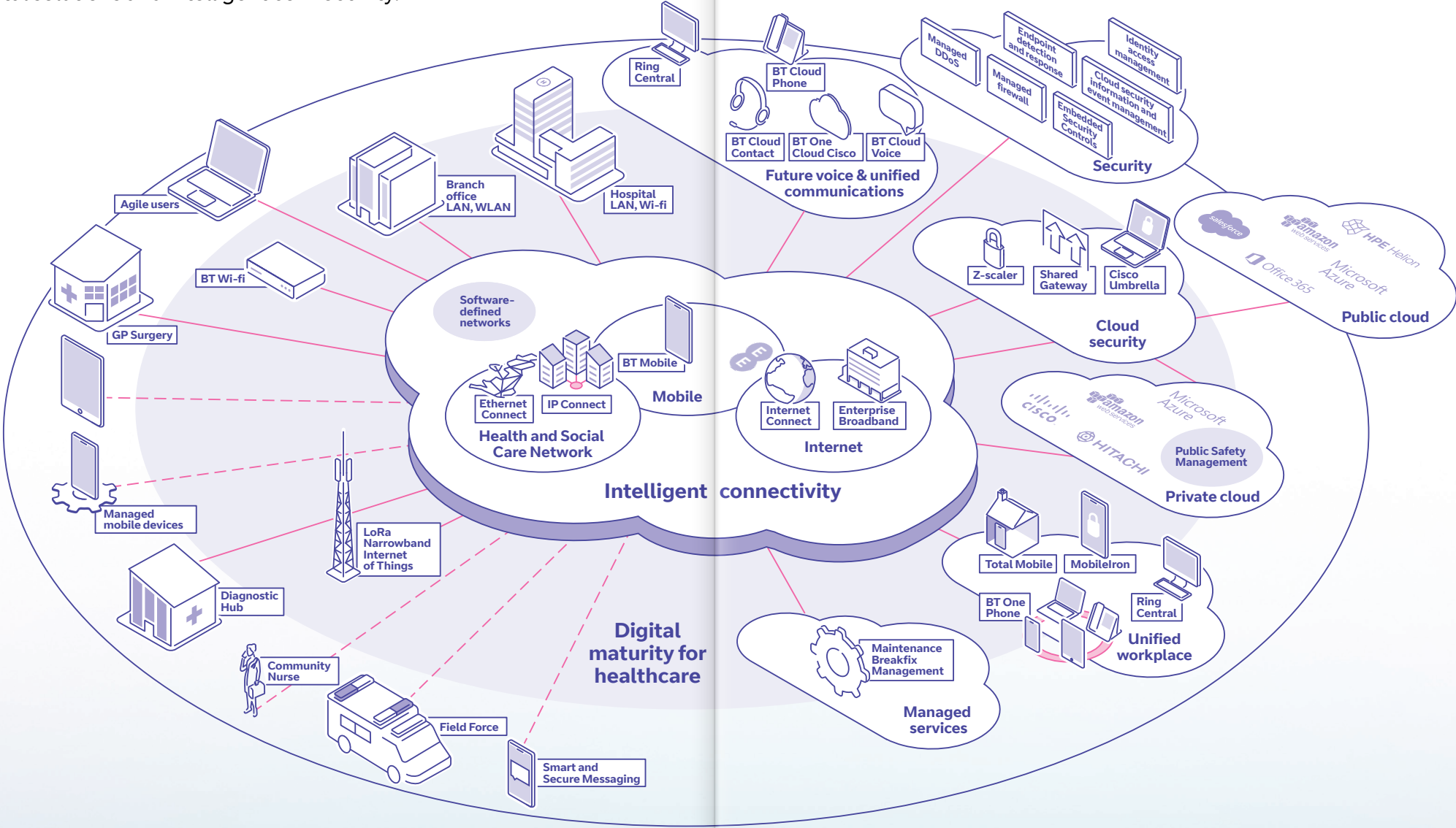
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# Future-ready infrastructure

Start transforming healthcare today, with our innovative digital solutions and intelligent connectivity.

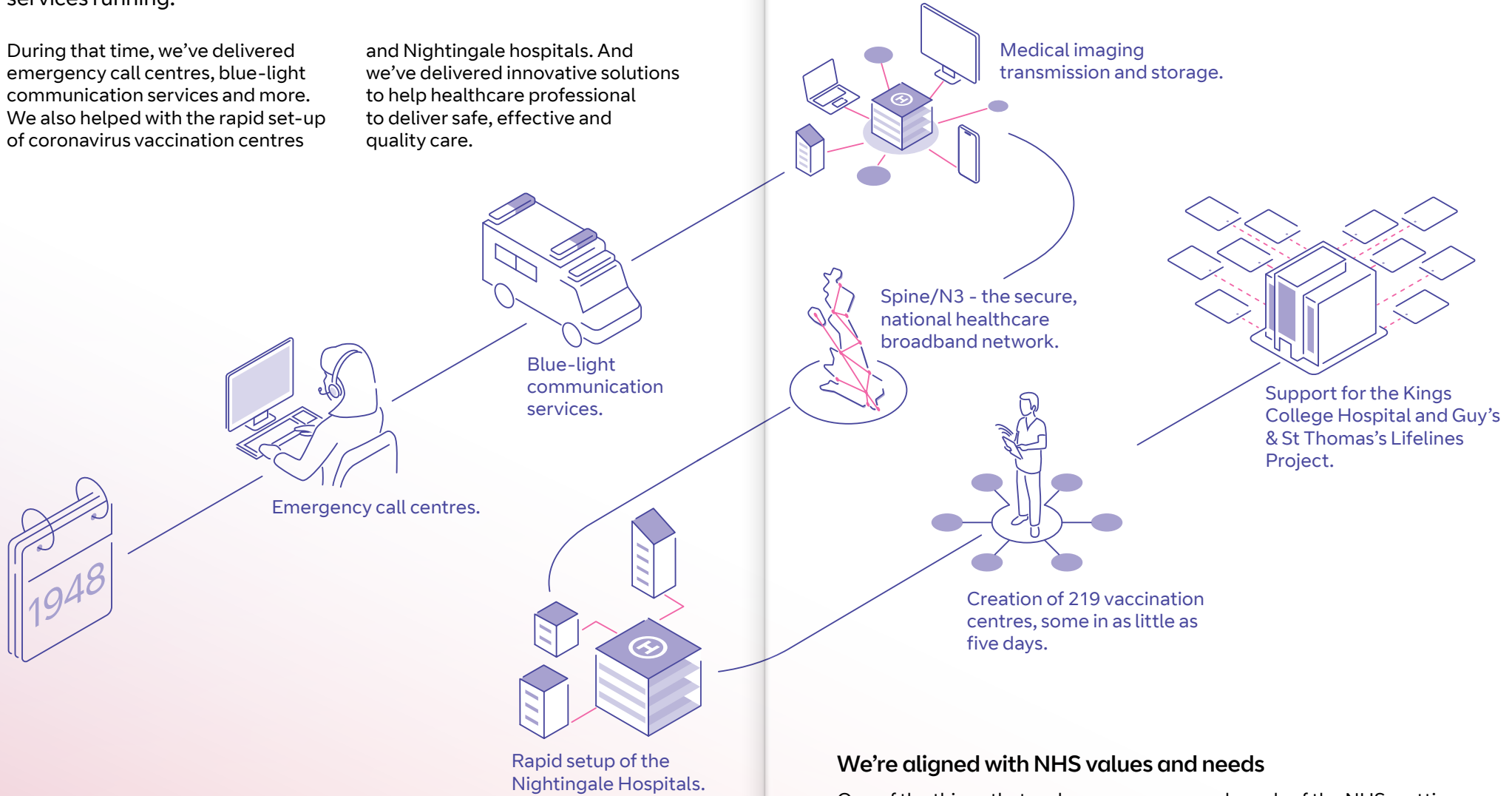


# Why work with us?

We've been working with and supporting the NHS right from its origins. For more than 60 years, we've kept critical NHS services running.

During that time, we've delivered emergency call centres, blue-light communication services and more. We also helped with the rapid set-up of coronavirus vaccination centres

and Nightingale hospitals. And we've delivered innovative solutions to help healthcare professional to deliver safe, effective and quality care.



## We're aligned with NHS values and needs

One of the things that makes us a great partner for the NHS is that we're more than just technologists. We're also well versed in the values

and needs of the NHS, putting clinical excellence and patient experience at the heart of everything we do.

# Our DigiHealth Innovation Hub

Collaboration and investment are how we solve the problems of tomorrow. That's why we've built industry-specific Innovation Hubs, to create new partnerships and technologies that will give the world meaningful solutions.

Like all our Innovation Hubs, our DigiHealth hub brings together users, industry bodies, academia and technology partners. It's a space where we can showcase the latest technology, innovate through industry labs and co-creation spaces, organise trials of new solutions and turn great ideas into products.

What makes the DigiHealth Innovation Hub special is that it's not home only to technologists but also experienced healthcare professionals, who give us real-world insights.

## Key focus areas

We're aligned with the NHS's long-term plans. These include:



**Reducing pressure on emergency hospital services**



**Better care for major health conditions**



**Giving people the right information at the point of care**



**Managing and improving the flow of data**



**Making sure systems and data are secure**

## See the latest tech

We have several industry-leading facilities open to our Vanguard Innovation Programme members. These are home to collaboration spaces; events, competitions and trials; and hothouse, hackathons and labs.

We also have Innovation Showcases, where you can see the latest technologies and get hands-on demonstrations. Both our FutureZone in London and our Adastral Park science campus in Suffolk are filled with the latest research from BT Labs and cutting-edge technology from our partners

– providing a deep dive into the solutions of the future.

As well as hosting our DigiHealth showcase, Adastral Park is where you'll find BT Labs. The campus is the heart of our research efforts, covering everything from 5G technologies to drones and robotics, and a place where you can talk to world-renowned experts about AI, the blockchain, cyber-security and more.

If you'd like to visit the DigiHealth Innovation Hub, please let the BT Health team know.





## Five key takeaways

1

### Co-creating with a whole marketplace

Real challenges need real solutions. We're not going to work in isolation. We want to connect the NHS with the whole market of digital innovators – so they can co-create innovative answers to the challenges the NHS is facing now and the ones it doesn't even know about yet.

2

### Collective commitment and motivation

Digital connects healthcare professionals and patients with the care system. For the right information. For proactive care. For public health. When everyone is informed and involved, imagine where that collective motivation can take us.

3

### An unrivalled partnership

With the NHS under so much pressure, the pandemic showed our partnership at its best. Technology really made a difference to what we were able to deliver together. To find a sustainable healthcare model, digital is the way forward.

4

### Tried and tested healthcare solutions

We're committed to working closely with NHS experts to make sure all our new healthcare solutions are tried and tested, then tested again – to meet real NHS needs and keep improving outcomes for patients and the UK healthcare system.

5

### Our superior infrastructure

Thanks to our shared history, the NHS knows and trusts us as a supplier and partner. We have a competitive advantage, because no one can match our infrastructure and connectivity capabilities, our reliability or our reach.

## Meet the Vanguard team

We have a team of experts, ready to answer your questions and help you get the most out of the Vanguard Innovation Programme.



### Che Smith

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# Let's start innovating together

Thank you for your interest in our Vanguard Innovation Programme. We're excited about working with you to co-create a new digital future for the NHS.

For more information, head to [bt.com/bthealth](https://bt.com/bthealth)



## Offices Worldwide

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